

Drought and Flood Extremes on the Amazon River and in Northeast Brazil, 1790–1900

DANIELA GRANATO-SOUZA^a AND DAVID W. STAHLÉ^{^a}

^a *Department of Geosciences, University of Arkansas, Fayetteville, Arkansas*

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ABSTRACT: Recent severe droughts, extreme floods, and increasing differences between seasonal high and low flows on the Amazon River may represent a twenty-first-century increase in the amplitude of the hydrologic cycle over the Amazon Basin. These precipitation and streamflow changes may have arisen from natural ocean–atmospheric variability, deforestation within the drainage basin of the Amazon River, or anthropogenic climate change. Tree-ring reconstructions of wet-season precipitation extremes, substantiated with historical accounts of climate and river levels on the Amazon River and in northeast Brazil found in the Brazilian Digital Library, indicate that the recent river-level extremes on the Amazon may have been equaled or possibly exceeded during the preinstrumental nineteenth century. The “Forgotten Drought” of 1865 was the lowest wet-season rainfall total reconstructed with tree-rings in the eastern Amazon from 1790 to 2016 and appears to have been one of the lowest stream levels observed on the Amazon River during the historical era according to first-hand descriptions by Louis Agassiz, his Brazilian colleague João Martins da Silva Coutinho, and others. Heavy rains and flooding are described during most of the tree-ring-reconstructed wet extremes, including the complete inundation of “First Street” in Santarem, Brazil, in 1859 and the overtopping of the Bittencourt Bridge in Manaus, Brazil, in 1892. These extremes in the tree-ring estimates and historical observations indicate that recent high and low flow anomalies on the Amazon River may not have exceeded the natural variability of precipitation and streamflow during the nineteenth century.

SIGNIFICANCE STATEMENT: Proxy tree-ring and historical evidence for precipitation extremes during the preinstrumental nineteenth century indicate that recent floods and droughts on the Amazon River may have not yet exceeded the range of natural hydroclimatic variability.

KEYWORDS: Amazon region; ENSO; Drought; Flood events; Climate variability; Paleoclimate

1. Introduction

The most severe and sustained drought in the history of instrumental precipitation and streamflow observations for the Amazon River basin occurred in 1925/26 when river commerce was brought to a standstill and several steamships became grounded in the low water conditions between Iquitos and Manaus, Brazil, and on the lower Amazon River in the state of Pará [Commerce Yearbook 1926, p. 74; *Jornal do Commercio* 1925, supplemental Table 1 source 1770; *Diario de Pernambuco* 1926, supplemental Table 1 source 1750; *Jornal do Commercio* 1926abc, supplemental Table 1 sources 1771, 1772, and 1773 (for supplemental Table 1 and all of its sources, see the online supplemental material); Williams et al. 2005]. Extreme droughts were also recorded over portions of the Amazon Basin in 2005, 2010, and 2015 (Marengo and Espinoza 2016; Jimenez et al. 2018). High discharge on the

Amazon River was observed during the “Flood of the Century” in 2009, only to be followed by the extreme floods of 2012 (Marengo et al. 2013) and 2021 (Alves 2021; Espinoza et al. 2022). These recent drought and flood extremes, along with an apparent increase in the difference between the seasonal high and low water levels on the Amazon River (the flood stage vs the “terrestrial” phase), may represent an increase in the amplitude of the hydrologic cycle over the Amazon (Gloor et al. 2013; Barichivich et al. 2018). Deforestation in the drainage basin of the Amazon, natural variations in the large-scale circulation of the ocean and atmosphere, and anthropogenic climate change have all been implicated in the increasing frequency and magnitude of drought and flood extremes in the Brazilian Amazon (Sternberg 1987; Gloor et al. 2013; Barichivich et al. 2018). How unusual these recent extremes might be in the context of natural climate fluctuations is not clear because the record of hydroclimate variability and change in the Amazon Basin is not well known prior to the initiation of stream level measurements for the Rio Negro at Manaus in 1902.

Proxy evidence and historical documents suggest that recent river-level extremes for the Amazon River may have been equaled or exceeded by conditions during certain droughts or floods of the nineteenth century. The magnitude of historical extremes is difficult to quantify because of the lack of direct observations of precipitation or streamflow during the preinstrumental period. The recent tree-ring reconstructions of

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Corresponding author: David W. Stahle, dstahle@uark.edu

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wet-season precipitation totals in the eastern Amazon (Granato-Souza et al. 2019, 2020) may help improve knowledge of preinstrumental droughts and floods, especially when combined with historical accounts describing these exactly dated hydroclimatic extremes in the dendroclimatic record. These proxy rainfall and historical records may provide useful benchmarks for extreme low and high river levels on the Amazon River during the preinstrumental nineteenth century.

Historical descriptions of weather and climate extremes in Brazil are limited before 1900 but include early compilations by Thomaz Pompeu Brasil (1877) and Alipio Luiz da Silva (1885), and the modern review by Joaquim Alves (2003). High-resolution proxy climate records are also limited in Brazil, but long precipitation-sensitive tree-ring chronologies have begun to emerge recently for the Amazon and elsewhere in tropical South America (e.g., Brienen et al. 2012; Lopez et al. 2017; Humanes-Fuente et al. 2020). This is despite the fact that Amazonia is the most biodiverse forest region in the world with some tree species potentially suitable for dendrochronology. In fact, 6727 tree species native to the Amazon have been described taxonomically (Cardoso et al. 2017). This impressive number certainly underestimates the true total because tree species entirely new to science are frequently discovered in the Amazon (Falcão and Mansano 2020; Vasconcelos et al. 2020; Thomas et al. 2021). Meta-analyses of forest plot-based data suggests that there could be nearly 16 000 tree species native to the Amazon (ter Steege et al. 2013). Unfortunately, most native trees in the Amazon and across the global tropics do not form anatomically simple annual growth rings that can also be exactly dated with dendrochronology and used for verifiable reconstructions of precipitation extending centuries before the beginning of instrumental observations. There are important exceptions, including *Cedrela odorata* (“cedro”), which is a commercially important tropical hardwood with a wide distribution across Amazonia and the neotropics (Cintron 1990; Paredes-Villanueva et al. 2019) and can live for more than 200 years.

Several ring width chronologies of *C. odorata* have been developed in the Amazon Basin region (Brienen et al. 2012; Baker et al. 2015), including two from the Rio Paru watershed in the eastern equatorial Amazon (Granato-Souza et al. 2019, 2020). The two Rio Paru *Cedrela* chronologies have been used to separately reconstruct wet-season precipitation over the eastern Amazon (February–November; Granato-Souza et al. 2019; February–July, Granato-Souza et al. 2020). The *Cedrela* wet-season precipitation reconstructions exhibit strong multidecadal variability that is only vaguely apparent in the available and relatively short instrumental observations from the eastern Amazon. Dry and wet extremes in the precipitation reconstructions for the eastern Amazon also co-occur with precipitation and tree growth extremes of opposite sign in the middle latitudes of North and South America, part of a pan-American interaction of climate and forest growth that is largely orchestrated by El Niño–Southern Oscillation (Stahle et al. 2020).

The tree-ring reconstruction reported by Granato-Souza et al. (2020) has been used to identify precipitation extremes in the eastern Amazon during the late-eighteenth and nineteenth centuries. The Brazilian Digital Library (BDL) was then

searched for evidence to support or refute the occurrence of hydroclimate extremes in the specific years identified with the proxy data. Historical accounts, some exceptionally vivid, support most of the reconstructed wet and dry extremes from 1790 to 1900. Some of the historical documents also describe extreme high and low flows on the Amazon River and help identify the large-scale spatial pattern of precipitation during the reconstructed rainfall extremes. The proxy extremes that are well supported by historical accounts appear to have been major environmental events in Brazilian history and suggest that the modern instrumental record of Amazon precipitation and streamflow may not fully represent the range of natural hydroclimatic variability.

2. Data and methods

The tree-ring reconstruction of February–July precipitation totals in the eastern Amazon was described by Granato-Souza et al. (2020) and was based on the *C. odorata* chronology developed at the Rio Paru-Baixo site (RPB; located at 0.997522°S, 53.2667°W). The ring width chronology for the RPB collection was based on 50 dated radii from 22 *Cedrela* trees. The dendrochronologically dated ring widths (Douglass 1941; Stokes and Smiley 1996) were measured with a stage micrometer to a precision of 0.01 mm. The computer program COFECHA (Holmes 1983) was used to check dating and measurement accuracy. To minimize short-period growth excursions associated with nonclimatic stand dynamics in the closed canopy rain forests where the *Cedrela* were found, each dated time series was detrended and standardized by fitting a cubic smoothing spline with a 50% frequency response equal to two-thirds of the series length and calculating the ring width departures from the fitted curve using the ARSTAN program (Cook and Krusic 2005). The ring width index series for the 50 radii were then averaged on a year-by-year basis to produce the final robust mean index chronology (Cook and Krusic 2005).

The seasonal rainfall signal in the RPB chronology was identified using correlation analysis with monthly precipitation data from the eastern Amazon sector. The strongest signal was detected for the wet season (February–July) in a region near Santarem (0°–1°S and 56°–57°W) using gridded monthly precipitation data from the Global Precipitation Climatology Centre (GPCC) V7 0.5° dataset (Becker et al. 2013; Schneider et al. 2014). The GPCC data totaled for February–July were then regionally averaged, and that instrumental time series was the predictand used for reconstruction.

The RPB ring-width chronology was calibrated using bivariate regression with February–July precipitation from 1978 to 2016 when the GPCC data from the eastern Amazon are based on several weather stations and appear to be most homogeneous. The derived reconstruction extends from 1759 to 2016 and was validated during the calibration interval using the leave-one-out cross-validation reduction of error (CVRE) statistic, a regression diagnostic similar to the prediction error sum of squares (Allen 1974). The reconstruction was also compared with the fewer single-station precipitation observations available for the eastern Amazon before 1978 (Granato-Souza et al. 2020), and with historical climate information from the

region during the late-eighteenth and nineteenth centuries (this report).

The years when reconstructed precipitation is estimated to have been in the upper 90th or lower 10th percentile for the wet season were identified for the period from 1790 to 1900 to narrow the search for historical reports concerning environmental conditions during just the most extreme years. The reconstructed extremes based on the RPB chronology were also compared with the February–November precipitation reconstruction reported by Granato-Souza et al. (2019) using the *C. odorata* chronology from the Rio Paru-Alto location (RPA). Time series values in the upper and lower 10th percentiles are unusual but may not be truly “extreme” in the normal sense of the word. However, historical reports found in the BDL justify the term because, as we will see below, several of these wet and dry years may have been among the most extreme hydroclimatic events in the history of the Amazon. Our purpose has been to both test the validity of the reconstruction against independent historical information and, when possible, to provide a more detailed description of the precipitation anomalies estimated with tree rings. The tree-ring reconstructions for the years prior to 1790 (i.e., 1759–89) were not included in this analysis due to low sample size in the available *C. odorata* chronology used to develop the reconstruction.

The Brazilian Digital Library was used to recover weather, climate, and streamflow information from Brazil and a few other South American countries during the tree-ring-reconstructed wet and dry years of the late-eighteenth and nineteenth centuries. The BDL was developed by the Brazilian National Library (BNL), the agency responsible for the collection, storage, preservation, and diffusion of Brazil’s intellectual production (BNL 2023). The BDL is served to the public via an internet portal (<http://memoria.bn.br>) and consists of digitally scanned documents that include historical newspapers, periodicals, and a diverse collection of government reports, personal and professional correspondence, and other documentary material. The BDL uses optical character recognition to facilitate keyword search of the documents. The BDL is believed to provide most of the historical newspapers printed in Brazil, but some early newspapers and documents known to exist in other repositories are not included (e.g., the Portuguese Digital Library as well as Brazilian libraries and museums containing nondigitized documents). The search function for the BDL is limited to keywords or phrases, and conditional keyword searching cannot currently be performed. Other historical reports were obtained from the University of Chicago digital archive (Latin American Materials Project; <https://www.crl.edu/brazil>) and various historical compilations and books, including Agassiz and Agassiz (1868), Brasil (1877), da Silva (1885), Le Cointe (1903, 1948), and Alves (2003).

Several keywords were used to recover relevant historical information about climate and streamflow extremes, including *secca* (drought), *vazante* (the ebb or seasonal low stand of the river), *chuva copiosa* (copious rain), *cheia* (high level or flood crest), and *enchente* (flood; see the complete keyword list in Table 1 in the online supplemental material). The 1733 historical citations from the BDL presented in this article (of 1777 citations) would certainly not have been as accessible without

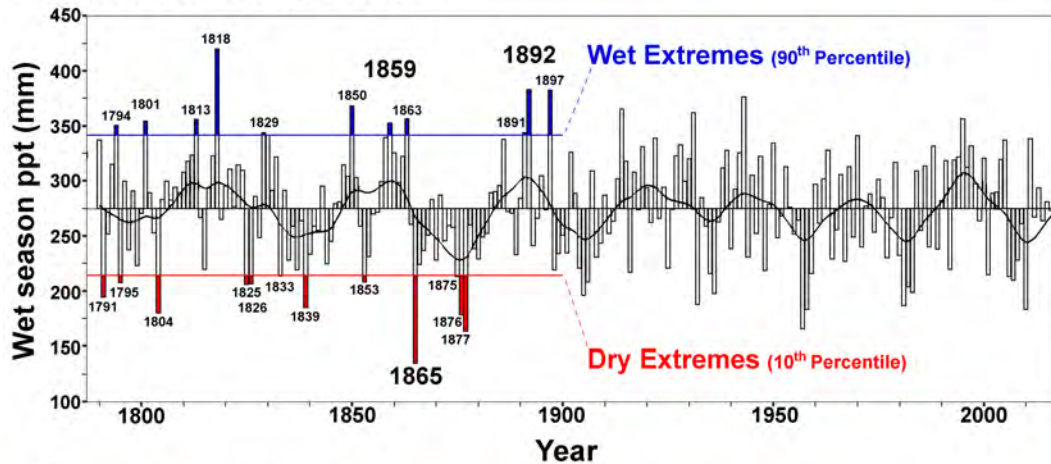
the keyword functionality of the BDL. Nevertheless, any keyword search of the BDL or other digital archives can go badly wrong. For example, the Portuguese word for “dry” is “*secca*,” and *secca* appears often in reference to dried meat, dried fruit, and many other contexts. Therefore, all keyword returns from the BDL were scrutinized for unambiguous reference to climate or streamflow conditions, or to the impacts of climate extremes on agriculture, environment, or society. Also, *as vazante* (the ebb, or low stand) and *as enchente* (the flood, or high stand) develop every year along the Amazon in response to strong precipitation seasonality in the basin, resulting in the dry-season low stand and the wet-season high stand of the river. Historical reference to these normal seasonal changes was not used as evidence for extremes, but many reports describing anomalies in the timing or magnitude of the *vazante* or the *enchente* were found and did relate to tree-ring-reconstructed precipitation extremes.

There are approximately 13 million sources in the BDL (BNL 2023). Because over 36 000 keyword returns were obtained for the decades beginning with 1870, we were only able to screen the first ≥ 1000 listed for the reconstructed extreme years after 1870 for unambiguous reference to climate or streamflow. All keyword returns from the BDL were screened for the years prior to 1870. An automated retrieval and screening system is under development to recover Amazonian weather, climate, and streamflow information for every year of the historical era from the BDL but will not be completed soon and was beyond the scope of this article.

The historical citations to climate or streamflow during the tree-ring-reconstructed precipitation extremes are detailed in Tables 1–7 in the online supplemental material (pp. 1–115). These include selected quotations in the original Portuguese along with the English translation (just the English translations are reproduced below). Instructions for using the BDL to access and read each historical source cited in this article are provided in the caption to Table 1 in the online supplemental material.

To examine the potential forcing of tree-ring-reconstructed and historically documented precipitation anomalies during the preinstrumental era, the reconstructed wet and dry years in the eastern Amazon (i.e., upper and lower 10th percentiles), supported in several cases by historical reports (see Figs. 2 and 3, described in more detail below), were compared with the Gergis and Fowler (2009) reconstructions of El Niño and La Niña events and the Torbenson et al. (2019) reconstruction of the Multivariate ENSO Index (MEI), both of which fully cover our preinstrumental study period from 1790 to 1900 (Table 8 in the online supplemental material, p. 116). The Gergis and Fowler (2009) reconstruction is based on proxy estimates from tree rings, corals, and ice cores, and on historical documentary reports, all calibrated with an instrumental ENSO index. The Torbenson et al. (2019) reconstruction is based on tree-ring chronologies in southwestern North America that maintain a strong, temporally stable relationship with ENSO during the full instrumental era (in that case, 1901–91). The reconstructed wet and dry years were also compared with the Kaplan et al. (1998) gridded sea surface temperature (SST) dataset available monthly from January 1856 to present (currently updated to

a. Eastern Amazon 1790–2016



b. *Cedrela odorata* tree rings



FIG. 1. (a) Tree-ring-reconstructed wet-season precipitation totals for the eastern Amazon, plotted for 1790–2016, along with the multidecadal waveform [from Granato-Souza et al. (2020)]. The upper and lower 10th-percentile thresholds calculated for 1790–1900 are highlighted. The driest and wettest years during this interval are indicated (with exceptional years in larger font). The RPB chronology is based on 50 dated and measured radii from 22 separate trees, and the derived reconstruction is believed to be reliable back to 1790 when the chronology is based on 7 radii (>20 radii are included after 1836). (b) The *C. odorata* tree rings, illustrated from 1947 to 2016 (specimen RPB45A; semi-ring porous annual rings are oriented vertically; decades are marked).

January 2023) and with selected atmospheric variables in the Twentieth Century Reanalysis (2023) product (NOAA 2023).

3. Results

a. Reconstructed rainfall extremes in the eastern Amazon, 1790–1900

The single *C. odorata* chronology from the Rio Paru-Baixo site explained 42% of the variance in February–July precipitation totals from 1978 to 2016 ($R_{\text{adj}}^2 = 0.42$; Granato-Souza et al. 2020). The reconstruction was validated during the calibration interval with the cross-validation reduction of error (CVRE = 0.39) and more weakly in correlations with an available four-station wet-season precipitation average during the precalibration interval from 1939 to 1977 when instrumental precipitation observations are limited in the Amazon basin ($r = 0.41$; Granato-Souza et al. 2020). The tree-ring reconstruction of wet-season rainfall totals for the eastern Amazon is plotted from 1790 to 2016 in Fig. 1a, along with the multidecadal waveform (~ 35 yr; Granato-Souza et al. 2020) that represents approximately 20% of the variance of the reconstructed time series based on singular spectrum analysis

(Ghil et al. 2002; St. George and Ault 2011). A photograph of dated annual rings in *C. odorata* is illustrated in Fig. 1b.

The tree-ring data used for this reconstruction are significantly correlated with wet-season precipitation totals for the eastern Amazon, especially during the wettest and driest years (Granato-Souza et al. 2020) when cold and warm sea surface temperatures (SSTs) in the tropical Pacific associated with extremes of El Niño–Southern Oscillation (ENSO) favor coherent precipitation anomalies over the eastern Amazon and the northeastern region of Brazil (Ropelewski and Halpert 1987, 1989; Wang et al. 2016). This coherence of moisture extremes over the eastern Amazon and northeast Brazil during warm and cold SSTs in the tropical Pacific is supported by moisture simulations in the CESM-Last Millennium Ensemble of paleoclimate models (Stahle et al. 2020). It is also supported by some of the historical accounts of weather, climate, and streamflow conditions found in the BDL during the years of reconstructed drought and wetness extremes in the late-eighteenth and nineteenth centuries [e.g., *O Cearense* 1877, Table 1 in the online supplemental material, source 1776; hereinafter all sources in supplemental Table 1 are specified as “Table 1: source number” (e.g., Table 1: 1776)].

The most extreme tree-ring-reconstructed dry years in the eastern Amazon from 1790 to 1900 occurred in 1791, 1795, 1804, 1825, 1826, 1833, 1839, 1853, 1865, 1875, 1876, and 1877 (i.e., the lowest 10th percentile of 111 years; Fig. 1a). The reconstructed wet extremes occurred in 1794, 1801, 1813, 1818, 1829, 1850, 1859, 1863, 1891, 1892, and 1897 (highest 10th percentile; Fig. 1a). The screening of the keyword returns resulted in 1733 reports referring to weather, climate, stream levels, crop conditions, or other impacts during the tree-ring-reconstructed dry or wet extremes from 1790 to 1900 (Tables 1–3 in the online supplemental material: 1729 primary, 4 secondary, and 44 other sources, for 1777 in total). Historical accounts found in the BDL that appear to be relevant to the reconstructed drought or wetness extremes, regardless of whether they agree with the sign of the tree-ring-reconstructed extreme, are referenced for each year in Table 1 in the online supplemental material. Supplemental Table 1 includes an identification number for each source, year of occurrence, location, and full bibliographic citation. These results are mapped sequentially in Figs. 2 and 3 (and in Fig. 6, described in more detail below), and the sources used in these figures are tabulated by identification number in Tables 4–6 in the online supplemental material.

Historical references to dryness were found in northeastern Brazil and/or the Amazon Basin for all 12 of the driest years in the tree-ring reconstruction (Table 7 in the online supplemental material), although historical reports from the Amazon Basin are absent for the dry extremes before 1853 (Fig. 2). Just a few climate-related reports were found for the reconstructed dry years of 1804 and 1839, and only one was found for 1795 but it described a “big drought” in Ceará (Table 1: 1062). The number of reports found for the tree-ring-reconstructed dry extremes are totaled by location and mapped in Fig. 2, excluding 1795. The precipitation estimates based on the Rio Paru-Alto chronology (Granato-Souza et al. 2019) are also included in Fig. 2 and indicate dryness in 10 of the 12 years of drought reconstructed with the RPB chronology for the eastern Amazon, particularly in 1791, 1833, 1853, and 1865.

Historical references to climate or stream level were found for 7 of the 11 tree-ring-reconstructed years of heavy precipitation (Table 7 in the online supplemental material), most indicating wetness in the Amazon and to a lesser extent over northeastern Brazil (Fig. 3). Precipitation estimates based on the RPA chronology also indicate some level of wetness for these seven years of heavy wet-season precipitation totals based on the RPB chronology (Fig. 3), and for 10 of the 11 wet year years from 1790 to 1900 (1794 was below average at RPA; Granato-Souza et al. 2019). The four years without any historical information occurred in the late-eighteenth and early-nineteenth centuries when historical documentation is limited in the BDL (i.e., 1794, 1801, 1813, and 1818). The tree-ring data indicate that 1818 may have been the highest wet-season rainfall total in 227 years (1790–2016; Fig. 1a; also very wet at RPA) but no citations to climate or streamflow conditions in 1818 have yet been found in the BDL. There are a few recollections of flooding on the Amazon River in 1819 but these were recorded many years later and it is not at all certain that they relate to 1818 as well (see Table 1: 28, 1664, 1698; and Table 7 in the online supplemental material for

suggestions of flooding 1819 and 1814). However, this might be more than coincidental because consecutive high stands have occurred on the Amazon and Rio Negro, including in 1859/60 (Table 1: 443, 1774).

b. The forgotten drought of 1865

The droughts of 1791, 1825, and 1877 are well-known dry extremes in the history of Brazil (Brooks 1971; Kiladis and Diaz 1986; Alves 2003; Aceituno et al. 2009; Marengo et al. 2017; Lima and Magalhães 2019). All three of these historical droughts are in the lowest 10th percentile of the tree-ring reconstruction of wet-season rainfall totals for the eastern Amazon (Fig. 1a; Granato-Souza et al. 2020). However, the tree-ring data also indicate several other drought extremes during the late-eighteenth and nineteenth centuries that are less well known, but most of which can be supported by historical newspapers and other documents (Table 7 in the online supplemental material). The lowest reconstructed wet-season rainfall total in the eastern Amazon from 1790 to 2016 occurred in 1865 when less than half of normal wet-season precipitation is estimated from the tree-ring data (Granato-Souza et al. 2020; Fig. 1a).

The dry event of 1865 has been referred to as the “Forgotten Drought” (da Silva 1885) when one of the most profound *vazantes* (low stands) of the historical period occurred on the Rio Negro and Rio Solimões, the two tributaries that join at Manaus to form the Amazon River. The *Diário de Pernambuco* (Table 1: 452) described the *vazante* of 1864 on the Rio Negro as the lowest that had been witnessed (letter to editor written 24 December 1864; *vazante* on the Negro usually occurs in November but may persist into the next year). A government expedition aboard the steamer *Pirajá* on the Rio Negro could not proceed beyond the settlement of Carvoeiro near the confluence of the Rio Branco with the Rio Negro due to the extremely low water levels on 25 December 1864 (Table 1: 452). The *Pirajá* expedition also reported a delayed onset of the subsequent 1865 rainy season (Table 1: 452) and the seasonal change from *vazante* to *enchente* (lowest to highest stage) on the Rio Negro from 1864 to 1865 may have been the lowest of the historical or instrumental era (*Diário de Pernambuco*, Table 1: 454; discussed below).

The Rio Solimões was also well below average during the Forgotten Drought of 1865. The steamship *Ycamiaba* became grounded twice in trying to navigate the main channel of the Solimões from Tabatinga on the Peruvian frontier to Manaus (Table 1: 708):

“As the *Ycamiaba* grounded twice on the September trip as a result of the great ebb of the river, it could only reach Manaus on the 26th of that month.”

A steamship journey from Tabatinga to Manaus typically took 2 weeks in the midnineteenth century, but the *Ycamiaba* spent 2 months attempting to reach Manaus during the drought of 1865 (Table 1: 708; Agassiz and Agassiz 1868). Wet-season precipitation amount and duration may have both been lower than normal in 1865 because the *vazante* of the Rio Solimões reached its lowest level in mid-September (Table 1: 708, 1052; *Diário de Pernambuco* 1865c, Table 1: 1747), nearly 2 months

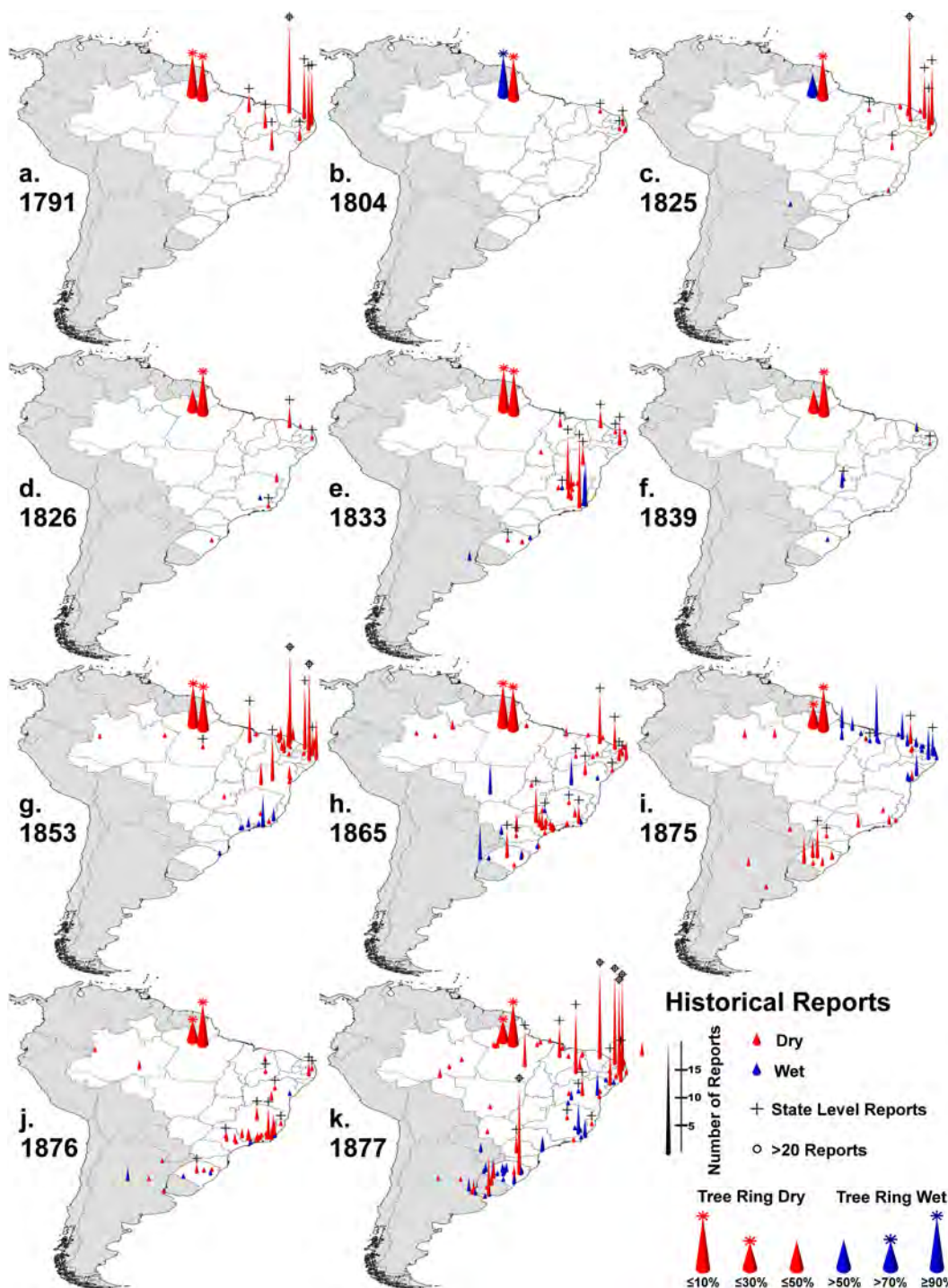


FIG. 2. Historical reports for moisture conditions in and near Brazil for the driest years in the precipitation reconstruction for the eastern Amazon from 1790 to 1900 (the lowest 10th percentile: large red cones with asterisk) based on the Rio Paru-Baixo chronology (Granato-Souza et al. 2020). The percentile rankings for the precipitation reconstruction based on the Rio Paru-Alto chronology during these same years are also plotted [red and blue cones; from Granato-Souza et al. (2019)]. Historical reports of dryness predominate in most of the tree-ring-reconstructed dry years. Only one historical climate report was found in the BDL for 1795 (“big drought” in Ceara; not mapped). The historical reports tallied here are cited for each year in Table 4 in the online supplemental material.

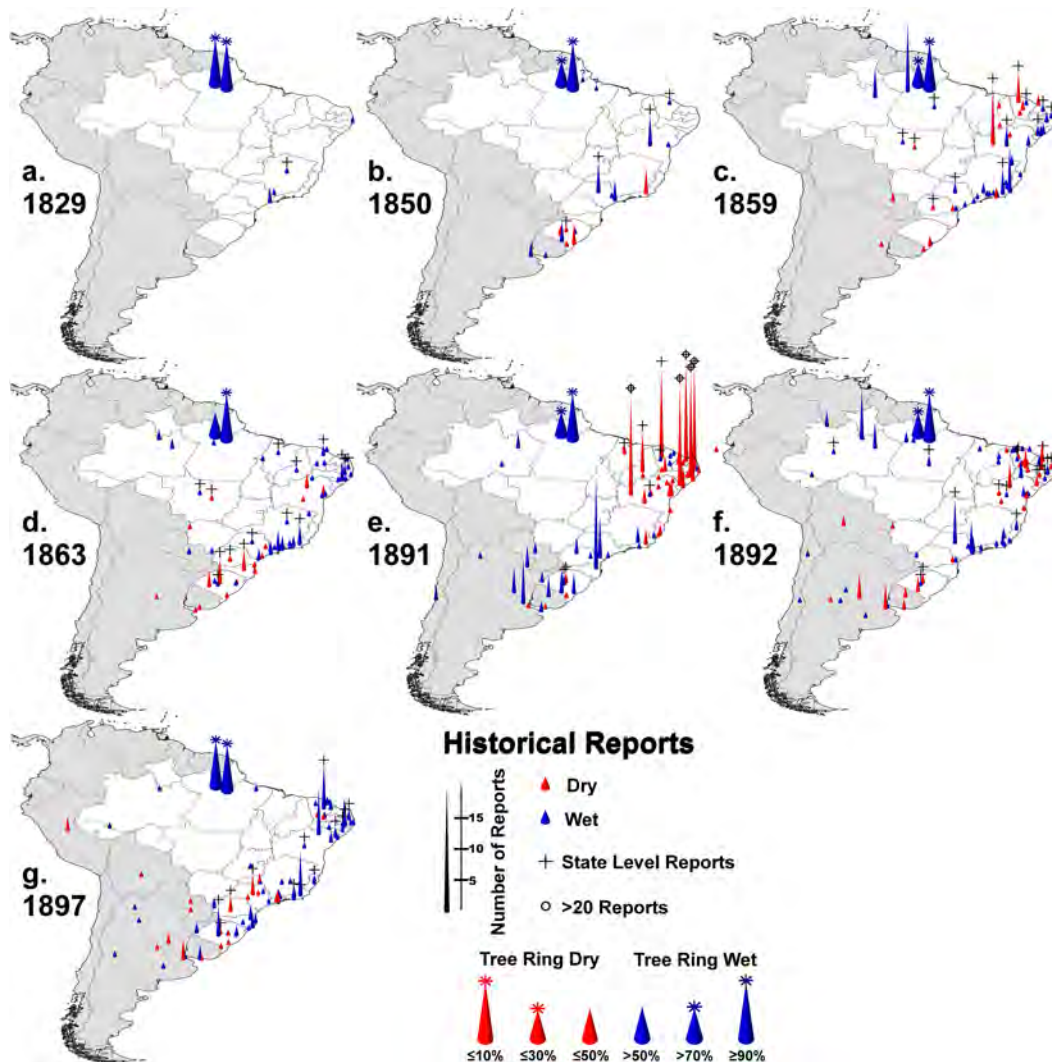


FIG. 3. As in Fig. 2, mapped here for moisture conditions during the tree-ring-reconstructed wet extremes, 1790–1900 (largest blue cones with asterisk). Most historical reports indicate wetness in northern Brazil during the reconstructed wet extremes, except for 1891. The reports on flooding in the state of Para for 1850 (Table 1: sources 989, 991) are uncertain [noted with a question mark over the cone in (b)]. No information about climate or streamflow conditions in Brazil was found in the BDL for 1794, 1801, 1813, or 1818. The reports tallied here are listed for each year in Table 5 in the online supplemental material.

earlier than the normal seasonal low water level on the Solimões (e.g., *Jornal do Commercio* 1861, Table 1: 1769; *Estrella do Amazonas* 1862d, Table 1: 1767).

The Thayer Expedition was a zoological expedition to the central Amazon in 1865, headed by Louis Agassiz and his Brazilian counterpart João Martins da Silva Coutinho (“Major Coutinho”; Agassiz and Agassiz 1868, Table 1: 167). The Expedition was heading to the western Amazon near Tabatinga in 1865, but Agassiz elected to remain at Tefé on the Rio Solimões because the extreme *vazante* of 1865 had concentrated fish in many isolated pools, creating ideal conditions for collecting new species (Table 1: 1052; Agassiz and Agassiz 1868). Farther upstream near Tabatinga the low water levels on the Solimões in

1865 were described by Major Coutinho (*Diario de Pernambuco* 1865c, Table 1: 1747):

“The river is presently at its maximum ebb, here near Tabatinga. Large banks of sand and mud are discovered on the headlands of the islands, and even in the middle of the river, where the Indians and inhabitants of villages and parishes are camped out to fish for turtles, pracajos, etc.”

Agassiz and Coutinho were able to collect 800 freshwater species new to science in just 3 months during the unusual low water conditions in 1865. Agassiz compared that number with the 300 species of freshwater fish that were described worldwide by C. Linnaeus just 100 years earlier (Table 1: 1052; Agassiz and Agassiz 1868).

The obscurity of the Forgotten Drought in the Brazilian historical record is puzzling considering the profound low stand of the Amazon River in 1865. However, the economic impact of the drought in 1865 may have been mitigated in Brazil by the highly inflated price of cotton due to the collapse of production in the American South during the Civil War (da Silva 1885). These international economic conditions may have buffered the Brazilian economy from the negative consequences of drought such as crop failure and livestock losses and may help explain why the magnitude of the moisture deficit and the extreme low water conditions on the Amazon during the Forgotten Drought of 1865 have received limited historical or scientific attention (da Silva 1885).

c. The Amazon River floods of 1859/60 and 1892

Historical sources describing climate or climate impacts during the reconstructed heavy precipitation extremes are not as extensive as were noted for the dry extremes, and most sources refer to the more settled regions of eastern Brazil (Fig. 3). Nevertheless, the tree-ring-reconstructed wet extremes were associated with major flooding on the Amazon River system in 1859 and 1892. Extreme flooding on the Amazon River during the reconstructed wet year of 1859 was reported by several sources at both Manaus (Table 1: 1774) and Santarem (Table 1: 28, 97, 253, 254, 257, 259, 443, 1021, 1664), and was referred to as “The Great Flood of 1859” by Lacerda in 1865 (Table 1: 1698, 1774). Flooding occurred in 1859 and 1860 at both locations, although the highest flood level was observed in 1859 (Table 1: 443, 1774). *A Epocha* described the flooding along the lower Amazon River in June of 1859 (Table 1: 28):

“Santarem. The Amazon Flood. We would like to paint a living picture that would put well within reach of all the incalculable damages that the Amazonian people have suffered and continue to suffer from the great rise of the river, and in such an amazing way, that there is no tradition, taking with its ravenous current all that could hinder its impetuosity. The only tradition that exists about the great floods of the Amazon, are the ones of 1807 and 1819, and these that served as a rule to the farmers, for the search of their lands for agriculture, and building, were completely mistaken in the year of 1859 (!) in that the flood covered all the landmarks of those, covered all the lands, and even was to harm some establishments built in lands of the mainland and very high; and its invasion even went to towns like Santarem and Alemquer, where the first street was completely impassable, and now traffic can be made by canoe, whereas before it was done by land! In the districts of Santarem, Alemquer, Obidos, and Vila Franca, where establishments are built on the floodplains, there is not a single house whose floor is not flooded with two or more palms of water.” [one palm = 0.228 m; 1807 was not a reconstructed wet extreme].

The flood of the Rio Negro in 1892 occurred during the second highest wet-season precipitation total reconstructed for the eastern Amazon from 1790 to 2016 (Fig. 1a) and may have equaled or possibly exceeded the most extreme flood yet recorded at Manaus, which occurred in 2021 (Alves 2021). Based on instrumental measurements at the Port of Manaus near the confluence with the Amazon, the crest of the Rio Negro reached 30.02 m on the gauge in 2021, which is equivalent

to 23.19 m above mean sea level (MSL) (Alves 2021; Alves et al. 2021; note that zero on the Rio Negro gauge at Manaus is 6.83 m MSL). A series of reports in the periodical *Diario de Manaos* from 21 May to 27 August 1892 (Table 1: 389, 390, 391), indicate that the bridge over Bittencourt Creek was overtopped by floodwaters from the Rio Negro. Bittencourt Creek and Manaus Creek are adjacent tributary streams between downtown Manaus (centro) and the Cachoeirinha neighborhood. Both drainageways are subject to backwater flooding from the Rio Negro and the Amazon River which joins the Negro only 13 km downstream. On 21 May 1892, *Diario de Manaos* reported:

“... we already put the illustrious stewardship on notice about the flooding of the river, which will cover the bridge of the Bittencourt Creek if it goes up one more palm: this warning is so that one fine day the residents of Cachoeirinha are not reduced to taking off their shoes to cross the bridge or have to look for other difficult and expensive means of transport for many.” (Table 1: 389).

Twelve days later on 2 June 1892, the *Diario de Manaos* declared in a headline that the bridge was “Inundada” (flooded) and:

“The bridge over the Bittencourt Creek, in the Cachoeirinha neighborhood, is finally taken by the river’s flood. It is urgent that the superintendent order as soon as possible the repairs that are needed on the said bridge, in order to reestablish public traffic. We are well aware that the superintendent is not responsible for the flooding of the bridge for the enormous flooding of the river, but he will be blamed if he does not take the measures that the case is demanding as soon as possible.” (Table 1: 390).

And on 27 August 1892, the *Diario de Manaos* described the damage caused by what appears to have been the overtopping or complete inundation of the bridge and roadway:

“The Bridges”

“It is another matter that lacks the care of the illustrious directors of the municipality. Almost all of them need repairs, especially the second bridge at Cachoeirinha [i.e., the Bittencourt Bridge]. Covered as it was by the waters of the stream that it crosses, by the huge flood this year, the nails oxidized by the long immersion dilated the places they cross in the wood of the bridge, as a result of which all the boards of the bed were detached and completely loose on the respective joists.” (Table 1: 391).

At least 24 reports in the BDL describe heavy precipitation or flooding in the Amazon River basin in 1892 (Tables 3 and 5 in the online supplemental material). The reporting by the *Diario de Manaos* is notable because it may help constrain the elevation (or stage height) of the Amazon River at Manaus during the flood of 1892. The *Diario de Manaos* indicates that the Bittencourt Bridge was immersed by the regional flooding of the Amazon River, which backed up the Rio Negro into Bittencourt Creek and submerged the roadway of the bridge for a period of days, possibly weeks. However, the flood of 1892 did not remove the bridge because *Diario de Manaos* states that boards on the joists of the bridge were only “loosened.” Nonetheless, the inundation damage was sufficient to require complete replacement of the original wooden bridge (Amasonas 1892abd,

Table 1: 1739, 1740, 1742), a project that was not completed until 1896 [*Diário Oficial (AM)* 1896, Table 1: 1752; Duarte 2009]. These impacts to infrastructure, and references to measurements of the river-level change from seasonal low to high stand (*vicente-enchente*), may provide useful historical constraints on the elevation of the Amazon River during the floods of 1859/60 and 1892, and the Forgotten Drought of 1865.

d. Potential historical constraints on nineteenth-century river-level extremes of the Amazon River

Reports in *A Época* provide specific information on the elevation of the Amazon River at Santarem and three other towns nearby during the flood of 1859 (Table 1: 28). *A Época* discriminates between buildings on the “floodplains” and on the “mainland and very high” and noted that all structures built on the floodplain in Alenquer, Óbidos, Santarem, and Villa Franca were covered with at least two palms of floodwater (0.456 m). *A Época* also noted that “first street” in Santarem was completely flooded in 1859. The “first street” of 1859 in Santarem is now referred to as *Rua 24 de Outubro* (Lopes et al. 2019) and the modern road surface is approximately 10–12 m MSL based on four elevation measurements made in 2022 [i.e., 10.199, 10.935, 11.389, and 12.079 m MSL (Consultoria Norte Geo 2022); the sea level reference for the river gauge at Santarem was calculated by Moreira (2016)]. Because *A Época* stated that “first street in Santarem was completely impassable, and now traffic can be made by canoe” during the flood of 1859 (Table 1: 28), the level of the Amazon River may have reached 10.7 m MSL at Santarem [i.e., the lowest measured elevation of *Rua 24 de Outubro* (10.199 m MSL) plus the approximately 0.5 m needed to float a canoe]. If true, this would indicate that the flood of 1859 may have exceeded the highest flood of the instrumental era at Santarem [i.e., the record flood of 2009 reached 10.22 m MSL at Santarem (ANA 2019; Consultoria Norte Geo 2022; Moreira 2016)].

This, of course, depends on the elevation of First Street in Santarem in 1859. Is *Rua 24 de Outubro* in Santarem truly the First Street of 1859? Has the modern roadway on *Rua 24 de Outubro* been increased in elevation when compared with First Street of 1859? Does the elevation of the unaltered soil beneath *Rua 24 de Outubro* in Santarem provide a more realistic minimum stage height for the flood of 1859? These questions and others will need further investigation, potentially including “high water mark” analysis (e.g., Baker 2008; Koenig et al. 2016), to better constrain the flood stage of 1859.

The inundation of the Bittencourt Bridge may provide another useful benchmark for Rio Negro/Amazon River flood stage prior to the onset of instrumental observations. Because the Bittencourt Bridge is close to the confluence of the Rio Negro and Rio Solimões that join to form the Amazon River, the flood stage at the bridge is essentially equivalent to the level of the Amazon River below Manaus. As Oltman et al. (1964) note, the total fall of the Amazon River is only 65 m over 3000 km from the Peruvian border to the Atlantic Ocean, and the water level at the Rio Negro-Amazon River confluence

during the average low stand each year (*vazante*) is only 10.699 m (35.1 ft) MSL.

The first bridges over Bittencourt Creek and the adjacent Manaus Creek were built in 1881 based on engineering designs prepared by the “Engineer of the Municipal Chamber” in 1876 (*Amasonas* 1881abc, Table 1: 1736, 1737, 1738; Duarte 2009). Both bridges were severely damaged, and the Bittencourt Bridge was “covered” by the flood of 1892 (Table 1: 391, 392). Repairs began in November 1892 and replacement of the original wooden bridges by masonry structures was completed in 1896 (Duarte 2009). The bridges built in 1896 are still in use today (Fig. 4; Duarte 2009).

The precise elevation of the Bittencourt and Manaus Creek Bridges in 1892 is not currently known. However, the size and orientation of the bridges were discussed in the periodical *Amasonas* (1881c, Table 1: 1738; translated in Table 7 in the online supplemental material) and the modern bridges were reconstructed in the same location as the originals built in 1881 (*Amasonas* 1892d, Table 1: 1742). The modern bridge roadways are 27 m MSL (DMV Projetos e Serviços LTDA 2022), and the stream-bed elevation beneath the two bridges is estimated to have been 17.4 ± 2.0 m MSL before being backfilled and landscaped in 2006 (Duarte 2009), based on photogrammetric analysis of a circa-1970 photograph (H. Theiss 2022, personal communication; Fig. 4).

The road surface on the Bittencourt Bridge is estimated to have been 9.6 m (± 2.0 m) above the stream bed in the 1970 photograph (Fig. 4), so the original elevation of the streambed beneath the bridge would have been 27 minus 9.6 m, or approximately 17.4 m (± 2.0 m) MSL. This approximates the specifications for the replacement bridge published in *Diário de Manaus* on 27 August 1892 (i.e., “12 meters wide and 8 meters high above the water level,” *Amasonas* 1892c, Table 1: 1741). The stream-bed elevation therefore provides a minimum estimate for the height of the 1892 flood, assuming that the Bittencourt “Bridge” that was overtopped by the flood of 1892 was nothing more than a low water crossing. However, the Bittencourt Bridge was indeed a timber-framed structure (*Jornal do Amazonas* 1876; *Amasonas* 1881abc, Table 1: 1736, 1737, 1738) and 17.4 m MSL is below the average seasonal *enchente* (high-stand) of the Rio Negro at Manaus (the instrumental mean minimum, average, and maximum for the Rio Negro level at Manaus are 10.699, 15.86, and 21.02 m MSL, respectively, and the modern gauge is 1.32 km west of the bridge). Consequently, the original 1881 wooden bridge must have been at least 3.62 m above Bittencourt Creek to be above the modern mean seasonal high stand (i.e., 21.02 minus $17.4 = 3.62$). If it was ≥ 5.79 m above the creek bed then the flood of 1892 may have equaled or exceeded the record flood of 2021 (i.e., $17.4 + 5.79 = 23.19$ m MSL, the stage height measured in 2021). Additional documentary descriptions of the Bittencourt Bridge during or before 1892, if they can be found, would be critically relevant to the question of flood extremes on the Amazon River.

The nineteenth-century documentary records of Major Coutinho are also potentially relevant to hydroclimatic extremes on the Amazon River. Major Coutinho (1830–89) was an officer and engineer in the Brazilian army who traveled



FIG. 4. Aerial photograph (Duarte 2009; view south) of the masonry bridges over Bittencourt (at the left) and Manaus (to the right) Creeks in Manaus (undated image, but approximately 1970). Both bridges were constructed in 1896 to replace the two wooden bridges damaged in the flood of 1892. Both creek channels were backfilled and landscaped in 2006 (Duarte 2009). Note that the water level shown here would conform to the water level of the Rio Negro and the Amazon River for many kilometers up and downstream from Manaus.

extensively in the Amazon River basin the midnineteenth century making scientific collections and observations (Silva et al. 2013; *Diário de Pernambuco* 1865ab, Table 1: 1745, 1746, 1867ab, Table 1: 1748, 1749; *Diário do Rio de Janeiro* 1866, Table 1: 1751; *Correio Mercantil* 1862, Table 1: 1744; Mello 1866, Table 1: 1774; Table 1: 167, 1052). Coutinho made meteorological and hydrological observations near Manaus (*Estrela do Amazonas* 1861a–j, 1862a–d, Table 1: 1753–67), including of Rio Negro stream level at “*Ponte dos Remédios*” (da Silveira 1984), one of the first bridges built in Manaus (Duarte 2009). The *Ponte dos Remédios* was in central Manaus between Tenreiro Aranha Square and Miranda Leão Street, only about 0.5 km from the modern stream level gauge at the Port of Manaus maintained by the Amazonas State Administration (Duarte 2009). The bridge no longer exists, and the *Igarapé dos Remédios* (Remedios Creek) has been backfilled and landscaped (Duarte 2009). However, the Port of Manaus was located at the *Ponte dos Remédios* in the midnineteenth century, and Coutinho’s measurements were made there (da Silveira 1984).

We have found reference to only a few of Coutinho’s measurements cited in some of the other historical documents (e.g., *Estrela do Amazonas* 1861a–j, 1862a–d, Table 1: 1753–67). The complete set of Coutinho’s measurements and the crucial potential link to absolute elevation are apparently not included in the BDL, nor in the selected papers of Major Coutinho housed at the Museu Emilio Goeldi in Belém, Brazil [da Silveira (1984) and our personal inspection of the Coutinho papers in Belém in

2022]. Nevertheless, Coutinho’s available measurements of river-level change by may be useful even without reference to absolute elevation.

The change from the annual maximum to minimum level of the Rio Negro at Manaus is plotted from 1859 to 1862 (Fig. 5a). Coutinho reported very high levels of the Rio Negro during the floods in both 1859 and 1860 (Lacerda 1865; Table 1: 1774; see Table 7 in the online supplemental material under 1859 for a transcription and further explanation of the Coutinho reference). According to Coutinho, the difference between the highest level measured during the *enchente* of 1860 and the lowest level during the *vazante* of 1861 was “67 palms” or approximately 15.28 m (Mello 1866, Table 1: 1775). Note that he was measuring the interannual change from high to low stand for 1860/61 and not the seasonal *intra-annual* change in the level of the Rio Negro. Nonetheless, the 15.28-m change from the *enchente* of 1860 and the *vazante* of 1861 was exceeded only once in the modern instrumental record from 2009 to 2010, when the difference was 16.13 m [the instrumental mean year-to-year change is 10.35 m, std dev 2.14 m, as compared with the average within-year seasonal change of 10.28 (std dev 1.89 m), 1903–2022; ANA 2023]. The maximum range from the highest to lowest levels yet observed in the gauged record for the Rio Negro was 16.38 m, or 71.65 palms, comparing the *vazante* of 1963 (and 2010) with the *enchente* of 2021 (ANA 2023). This record range in the instrumental observations might have been approached from the *enchente* of 1860 (or 1859) to the *vazante* of 1864, because the *vazante* was lower in 1864

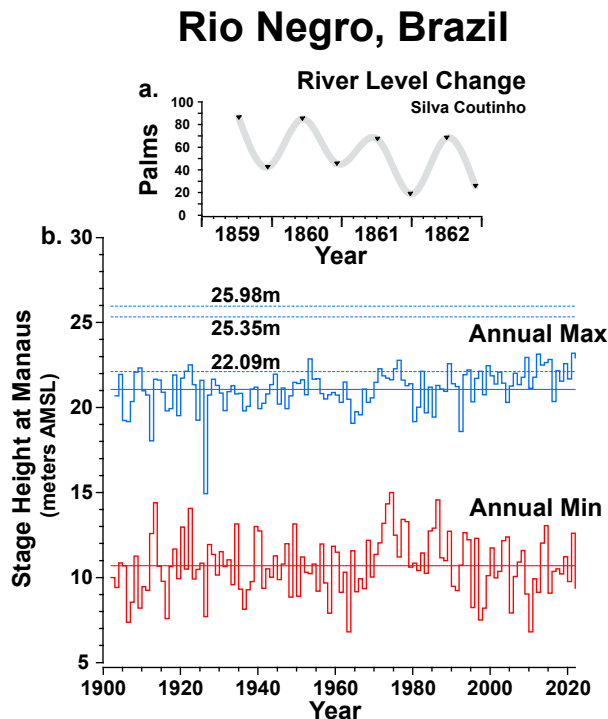


FIG. 5. (a) Coutinho's measurements of maximum-to-minimum river-level changes on the Rio Negro at Manaus, plotted from 1859 to 1862 (relative, not from datum; palms = 0.228 m). The measured changes are plotted for June and November (black symbols), the modern mean timing of *enchente* and *vazante*, respectively, and a spline is fit to estimate the intervening monthly values (gray curve). The values for 1859 are estimated from historical reports that flood of 1859 exceeded 1860 (plotted here simply as one palm higher than 1860, or 88 vs 87 palms), and the *vazante* of 1859 is plotted as the mean *vazante* measured during the top five floods from 1903 to 2022 (10.07 m or 44.17 palms, $88 - 44.17 = 43.83$ palms for 1859 *vazante*). The *vazante* of 1860 is believed to have been the most minimal measured by Coutinho from 1860 to 1862 (i.e., the highest low stand), only 40 palms lower than the *enchente* of 1860 (or 9.12 m; Lacerda 1865; Table 1: 1774). Note that the change from the high stand of 1860 to the low stand of 1861 was measured by Coutinho as 67 palms (a constant of 20 palms has been added to all measured changes for purposes of this plot). (b) Annual maximum and minimum stage heights for the Rio Negro at Manaus, plotted with respective means using the instrumental observations from 1903 to 2022 (ANA 2023), along with three estimates of flood height for 1860 (dashed thresholds). Coutinho's measurement of the interannual change in river level from 1860 to 1861 (67 palms or 15.28 m) is added to the lowest *vazante* ever recorded on the modern gauge at Manaus (6.81 m in 1963 and 2010) to estimate the minimum flood crest in 1860 at 22.09 m MSL. If Coutinho's measured change of 15.28 m is added to the average low stand for the top five instrumental floods (10.07 m), or the average for all years of the instrumental era (10.7 m), then the flood crest in 1860 could have been as high as 25.35 or 25.98 m MSL, respectively.

than 1861 when Coutinho measured the change of 67 palms from 1860 (*Diário de Pernambuco*, Table 1: 454).

If Coutinho's interannual change of 15.28 m is added to the lowest seasonal low stand (*vazante*) ever recorded in the

instrumental era (6.81 m in both 1963 and 2010; ANA 2023), then the flood of 1860 would have been approximately 22.09 m, a modest event equal to only the 22nd highest flood in the modern record (Fig. 5b). Of course, it is highly unlikely that the low stand of 1859 or 1860 would have been low at all because of the numerous *Diário de Manaus* reports for extreme flooding in both years (Table 1: 389, 390, 391), the “10 fathoms” of river depth measured at the confluence of the Rio Negro and Amazon during the *vazante* of 1860 (approximately 22 m; Table 1: 1763), and because the mean *vazante* for the five highest floods of the instrumental era was 10.07 m. If 15.28 m (Coutinho's 67 palms) is added to the mean low stand observed during the five largest floods of the instrumental era (10.07 m) or to the mean low stand of the entire instrumental era (10.7 m), then both would estimate that the *enchente* of 1860 may have been the highest flood stage ever observed on the Rio Negro (i.e., 25.35 and 25.98 m, respectively; Fig. 5b). These flood height estimates based on Coutinho's limited available observations are no substitute for true stage height measured from datum, and they refer to 1860, not the reportedly larger flood of 1859. But they do place Coutinho's measured year-to-year change for 1860/61 into the context of modern instrumental variability and suggest a startling range of river-level fluctuations on the Rio Negro in the midnineteenth century.

e. ENSO associations with the occurrence and large-scale patterns of reconstructed precipitation extremes

ENSO events can have a major impact on the spatial pattern and intensity of precipitation and temperature anomalies over South America (Aceituno et al. 2009; Garreaud et al. 2009). Drought over the eastern Amazon and northeast Brazil has been linked with El Niño events and with warm SSTs in the tropical North Atlantic (Hastenrath 2012), while wetness often prevails during La Niña events. Precipitation over southern Brazil also tends to be out of phase with northern Brazil (Garreaud et al. 2009), particularly during El Niño events (e.g., Stahlé et al. 2020). The tree-ring reconstruction of wet-season precipitation in the eastern Amazon is associated with El Niño conditions for the period 1856–2016 when instrumental SST observations are available, with warm, statistically significant SST anomalies in the central and eastern tropical Pacific during the 10 worst reconstructed droughts (Granato-Souza et al. 2020). The sample size is low, but several interesting observations can be made about the possible ENSO forcing of certain wet and dry years during the preinstrumental period from 1790 to 1900 and concerning the composite spatial patterns of historical climate reports during these same years over Brazil.

The reconstructed driest and wettest years in the eastern Amazon were compared with the list of El Niño or La Niña years reconstructed by Gergis and Fowler (2009) and with the reconstructed Multivariate ENSO Index reported by Torbenson et al. (2019) during the preinstrumental era from 1790 to 1900 (Table 8 in the online supplemental material). There are notable hits and misses in comparing the Gergis and Fowler (2009) ENSO event lists with the reconstruction of Amazon precipitation extremes that are discussed below. However, a Wilcoxon

rank sum test (Gibbons and Chakraborti 2011) indicates that the medians of reconstructed MEI values are modestly but significantly different between the two groups of years (i.e., the 12 dry years in the lower and 11 wet years in the upper 10th percentiles of reconstructed precipitation; z value = 2.123; p = 0.0337). Similarly, a two-tailed t test (Fay and Proschan 2010) shows statistically significant differences in the MEI means for these two groups (t = 2.152, p = 0.0432). The MEI reconstruction is based entirely on tree-ring chronologies from the ENSO teleconnection province of southwestern North America that exhibit a strong temporally stable correlation with the instrumental MEI (Torbensohn et al. 2019). Instrumental and reconstructed wet-season precipitation totals in the Amazon have both been previously related with precipitation and tree growth anomalies across subtropical North America, which is also believed to be primarily due to ENSO forcing of hydroclimate in both regions of the Americas (Stahle et al. 2020).

The tree-ring-reconstructed wet years of 1801, 1863, and 1892 did co-occur with strong to very strong La Niña events in the Gergis and Fowler (2009) record and extensive historical evidence for heavy precipitation and flooding in the Amazon was found in the BDL for 1863 and 1892 (Fig. 3). Very strong El Niño conditions were identified during the reconstructed dry years of 1853 and 1877 (Table 8 in the online supplemental material), also supported by historical reports of drought over Northeast Brazil (including Aceituno et al. 2009) as well as in a few areas of the Amazon River basin (Fig. 2). Note also that the precipitation anomalies indicated for Brazil in 1875 and 1891 were of opposite sign between the Amazon and Northeast Brazil (Figs. 2 and 3). In these two cases the more numerous historical observations over the Northeast were consistent with the expected sign of ENSO forcing (i.e., La Niña and wetness over the Northeast in 1875 (Fig. 2), El Niño and dryness over the Northeast in 1891 (Fig. 3; supplemental Table 8).

Surprisingly, no strong La Niña conditions were estimated by Gergis and Fowler (2009) or Torbensohn et al. (2019) for the year 1859 as might be expected for what may have been one of the largest floods in the history of the Amazon River. Intense La Niña values are reconstructed for the period 1860–63 just after 1859, which includes documented flooding of the Amazon River in 1860 and 1863 (Lacerda 1865; Table 1: 1774; Fig. 3, Table 7 in the online supplemental material). The gridded SST data of Kaplan et al. (1998) indicate cool SSTs in portions of the central tropical Pacific from December 1858 to February of 1859 (La Niña like), but these anomalies were very weak and not spatially extensive, and the eastern tropical Pacific began to warm modestly by May of 1859. SSTs in the tropical North Atlantic were below average in February of 1859, but were otherwise near normal to above average in that sector from October 1858 to July 1859. Last, the composite map of precipitation rate over the global tropics computed with the Twentieth Century Reanalysis (NOAA 2023) from December 1858 to July 1859 indicates an El Niño-like pattern not at all consistent with extreme flooding on the Amazon River in 1859.

In fact, it appears that the large-scale forcing responsible for two of the largest hydroclimate extremes in the history of the Amazon River is not well represented in the available

ENSO data, “The Great Flood of 1859” and the “Forgotten Drought” of 1865. Gergis and Fowler (2009) indicate a moderate El Niño event in 1865 consistent with dryness over the eastern Amazon (Table 8 in the online supplemental material), but hardly commensurate with what may have been one of the most severe droughts in the history of the region [the Torbensohn MEI reconstruction indicates slightly positive MEI for 1865 (El Niño), but it was the only positive reconstructed value in a decade (1859–68)]. Kaplan et al. (1998) indicate warm SSTs in the tropical Pacific from September 1864 through July of 1865, although again not as intense as was measured during major El Niño events. These epic Amazon Basin hydroclimate extremes of 1859 and 1865 therefore suggest that the anomalies apparent in the coupled ocean–atmospheric field may be underestimated during the midnineteenth century when the global instrumental climate record was in the very early stages of development.

A stark nineteenth-century contradiction between the hydroclimate extremes in the Amazon and northeast Brazil and simultaneous conditions in the large-scale climate field occurred in 1897 when instrumental weather and SST measurements had become reasonably abundant globally. The tree-ring reconstruction indicates that the wet season of 1897 was the third wettest of the entire reconstruction from 1790 to 2016 (Fig. 1a), supported by scattered reports of wetness in the Amazon and over northeast Brazil (Fig. 3), yet strong El Niño conditions are indicated by Gergis and Fowler (2009) and Kaplan et al. (1998) for 1897. Nowhere in South America does ENSO explain more than two-thirds of the interannual variance in instrumental precipitation totals (Garreaud et al. 2009) and 1897 may provide a useful example of dryness developing over northern Brazil despite the prevailing SST field in the tropical Pacific and Atlantic Oceans.

The summary maps of historical climate reports during tree-ring-reconstructed precipitation extremes in the eastern Amazon produce interesting large-scale patterns that may also reflect the underlying forcing of South American climate, particularly ENSO (Figs. 2 and 3). Historical accounts during most of the extremely dry years indicate that dry conditions often extended from the Amazon into northeastern Brazil typical of El Niño forcing (Fig. 2). To search for this pattern during the late-eighteenth and nineteenth century, and the opposite pattern of wetness linked with La Niña conditions, all reports found in the Brazilian Digital Library were summed and mapped for the tree-ring-reconstructed dry and wet years (Figs. 6a,b). Historical reports of dryness prevailed in the Amazon and the Northeast during the reconstructed drought extremes (Fig. 6a), a spatial pattern typical during El Niño conditions. Wet conditions were exclusively reported in the available documents for the central and lower Amazon Basin during the reconstructed wet years, but wetness did not extend into the Northeast as would often occur during La Niña events (Fig. 6b).

Anti-correlation between northern and southern Brazil has also been noted in modern precipitation observations in response to ENSO forcing, with drought in the north and wetness in the south during El Niño conditions (the opposite during La Niña; Garreaud et al. 2009). The tree-ring-reconstructed dry years of 1853, 1865, and 1877 in the Amazon were associated with wet reports from southern Brazil (Figs. 2g,h,k), and 1877/78 was

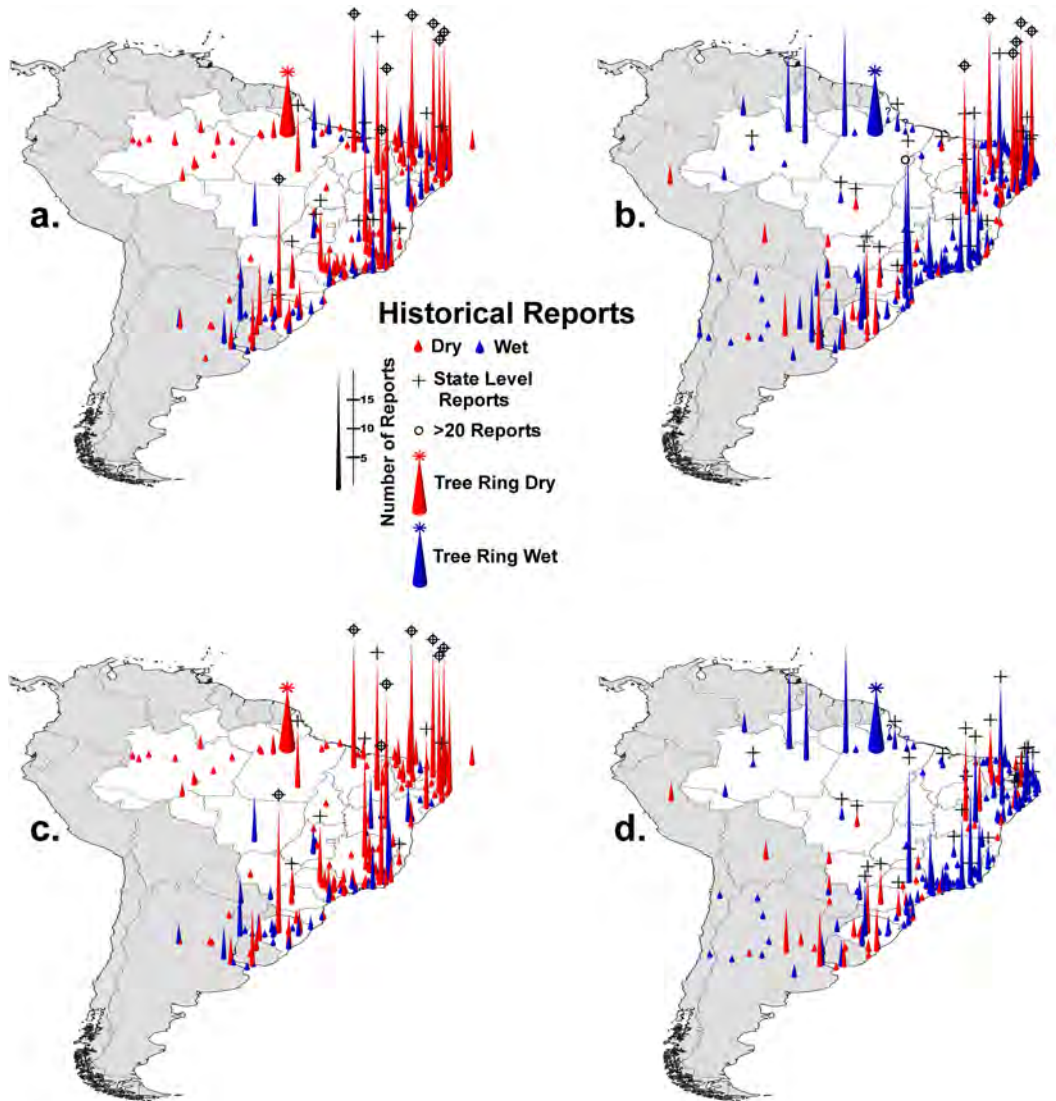


FIG. 6. The number of historical reports of dry or wet conditions in and near Brazil for (a) 11 of the 12 driest and (b) 7 of the 11 wettest years from 1790 to 1900 in the precipitation reconstruction. The number of historical sources used to produce these maps is tallied in Table 6 in the online supplemental material. The tree-ring-reconstructed wet-season precipitation totals based on the *C. odorata* chronology from Rio Paru-Baixo (Granato-Souza et al. 2020) are also indicated for the (c) dry and (d) wet extremes (upper and lower 10th percentiles; red and blue, respectively). The year 1875 is omitted from the composite map for the dry years [in (c)], and 1891 is omitted from the map for the wet years [in (d)].

one of the largest El Niño events in instrumental history (Kiladis and Diaz 1986; Huang et al. 2020). Likewise, dry reports from southern Brazil prevailed during the reconstructed wet years of 1859, 1863, and 1892 in the Amazon (Figs. 3c,d,f), and 1892 was a strong La Niña year (Wolter and Timlin 2011). Nevertheless, the full composite pattern does not indicate an unambiguous north-south dipole for these tree-ring-reconstructed wet and dry extremes in the nineteenth century (Figs. 6a,b).

Two years in particular are impacting the expected ENSO-like patterns in the composite maps of reconstructed extremes for the nineteenth century. If 1875 (Fig. 2i) is removed from the dry composite (Fig. 6a), then the typical El Niño pattern

of dryness over the eastern Amazon and northeast Brazil strengthens and some mixed evidence for wetness is observed in southern Brazil and adjacent areas (i.e., the dipole pattern; Fig. 6c). If 1891 (Fig. 3e) is removed from wet composite (Fig. 6b), then a La Niña-like pattern of wetness prevails in the Amazon and northeast Brazil along with some dryness to the south (Fig. 6d). ENSO forcing is not the only factor responsible for the spatial variability of precipitation over South America, of course, and the interesting non-ENSO related patterns of variability (e.g., 1897) deserve investigation in both the instrumental and preinstrumental historical record. But even at the continental scale, historical references to climate in

the BDL provide broad support for the precipitation extremes reconstructed with tree rings (Figs. 2 and 3), particularly in the Amazon River basin (Fig. 6), a result that would not be possible without the exact calendar year dating of the *C. odorata* tree rings with dendrochronology.

4. Discussion and conclusions

The Brazilian Digital Library is a large archive of historical information, including descriptions of extreme high and low flow conditions on the Amazon River and drought or wetness over northeastern Brazil. The most extreme years of tree-ring-reconstructed wet-season rainfall in the eastern Amazon have been used to focus the search of the BDL for relevant climate and streamflow information, which has provided strong historical support for some of the extremes identified with the independent proxy tree-ring data. A much larger effort is under way to recover all relevant hydroclimate information for every year covered by the BDL in the eighteenth and nineteenth centuries and might provide valuable insight into climate and environmental variability in the Amazon Basin and across Brazil.

The historical comparisons with reconstructed wet-season rainfall extremes in the eastern Amazon have helped validate the fidelity of the climate signal in the *C. odorata* tree-ring chronologies from the Rio Paru. The tree-ring data only explain 42% of the instrumental precipitation variance during the 1978–2016 calibration period, but high-quality instrumental observations of precipitation are not numerous in the vicinity of the tree-ring collection site even in the late-twentieth and early-twenty-first centuries. Because the tree-ring data respond most strongly to the driest and wettest rainfall extremes, the derived reconstruction of rainfall tends to relate to precipitation anomalies broadly over the Amazon, even extending into the northeastern states of Brazil where nineteenth-century historical reports are reasonably numerous. Precipitation extremes during the modern and historical eras tend to be driven by very large-scale ocean–atmospheric forces related to ENSO. However, ENSO is not the only driver of hydroclimate in the Amazon Basin and some of the preinstrumental extremes documented here may provide a useful perspective on independent variability between the tropical Pacific and Amazonian climate systems.

Ring-width chronologies of *C. odorata* have proven to be valuable rainfall proxies in the Amazon, but more are certainly needed to improve the temporal and spatial reconstruction of precipitation over what is the largest watershed on Earth. There may also be opportunities to recover additional historical benchmarks regarding drought and flood extremes in the Amazon that are not currently included in the Brazilian Digital Library, including the 1876 engineering specifications for the Bittencourt Bridge and any professional papers of Major Coutinho that may yet survive. Coutinho was in Manaus in the midnineteenth century and made instrumental observations of precipitation, river levels, and seasonal river-level changes (selected monthly precipitation totals for Manaus were included in *Estrella do Amazonas* 1861a–k, 1862a–d, Table 1, sources 1753–67). A dedicated search for any surviving professional records is needed because the available information suggests that the floods of 1859, 1860, and

1892 may have been among the highest in the history of the Amazon River. Coutinho's benchmark in Manaus was the gauge at *Ponte dos Remédios*, which was destroyed in the late-nineteenth century (*A Federação* 1896, Table 1: 1735; Duarte 2009; cause of bridge destruction not known). Nevertheless, it might be possible to constrain the relationship between the *Ponte dos Remédios* gauge and the modern gauge at the Port of Manaus with further historical, archaeological, and geomorphological research.

The most important specific benchmark yet discovered in the BDL may be the flooding in Santarém during 1859 when “First Street” was inundated sufficiently deep to float canoes. The lowest elevation measured for the modern day First Street in Santarém (*Rua 24 de Outubro*) is 10.199 m, which, along with the water depth needed to float a canoe (perhaps 0.5 m), could represent a river stage of 10.7 m MSL, exceeding even the flood of 2009 that reached 10.22 m MSL, the highest yet observed on the gauge at Santarém. This “Great Flood of 1859” at Santarém may have also exceeded the record flood at Manaus in 2021 (23.19 m MSL) because the two gauges are so highly correlated ($r = 0.89$; 1999–2022) that a regression estimate extrapolated from a high-water mark of 10.7 m at Santarém (estimated for 1859) would correspond to a level of 23.65 m MSL on the Rio Negro at Manaus. Recognizing that Amazon River discharge at Santarém, below the confluence with the Rio Tapajós, is larger than the mean discharge at Manaus, Obidos, or other gauging stations upstream, a record flood stage at Santarém would normally involve a greater water volume than any upstream stations. Because the Amazon River is the largest river on earth by a lot, “The Great Flood of 1859” at Santarém may have been the largest meteorological flood on earth in the past 164 years (e.g., O’Conner and Costa 2004).

The extraordinary possibility that the Amazon River flood of 1859 in Santarém, and perhaps the flood of 1892 at Manaus, may have nearly equaled or exceeded the record highest floods of the instrumental era will require further historical, hydrological modeling, and on-site engineering and archaeological research to support or refute. Flood crests along the Amazon River can be affected by several factors (e.g., de Paiva et al. 2013), including spatial variability in precipitation and runoff within the drainage basin, channel width and depth, sediment distribution in the channel and on the floodplain, water exchange between the main channel and large floodplain lakes, soil moisture, evapotranspiration, deforestation, crustal deformation due to water mass loading (Moreira 2016; Fossoni-Andrade et al. 2021), and ocean tides in the lower ~800 km of the stream (the Amazon estuary; Yamazaki et al. 2012). Nonetheless, improved characterization of the floods of 1859 and 1892, if feasible, would help to place the recent years of high-magnitude Amazon River floods into a longer context of natural hydroclimatic variability.

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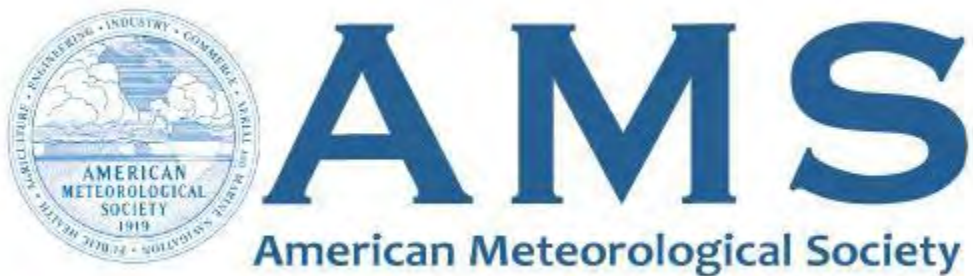
Data availability statement. The tree-ring data used in this article, including the raw ring-width data for each core and cross section and the derived precipitation reconstruction, are available from the NOAA National Centers for Environmental Information (<https://www.ncei.noaa.gov/pub/data/paleo/treeing/reconstructions/southamerica/amazon2020precip.txt>). Every historical report concerning climate tallied in Figs. 2 and 3 is available from the Brazilian Digital Library and the University of Chicago. The instructions for accessing each citation are provided in the caption to Table 1 in the online supplemental material. Note that images of the original citations are copyright protected by the BDL and therefore could not be reproduced in the online supplemental material.

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Supplemental Material

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Supplemental Material

Drought and flood extremes on the Amazon River and in northeast Brazil, 1790-1900

Daniela Granato-Souza and David W. Stahle
Department of Geosciences
University of Arkansas
Fayetteville, AR. 72701
danigsbio@gmail.com
dstahle@uark.edu

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CONTENTS

PAGE

Table 1: Full citations for 1,733 sources referring to climate or streamflow.	2-86
Table 2: Abbreviations used in Table 1 for cities and regions.	87-94
Table 3: Sources to wet and dry conditions listed by Brazilian state or country.	95-99
Table 4: Sources to dry (or wet) conditions listed by year.	100-101
Table 5: Sources to wet (or dry) conditions listed by year.	102-103
Table 6: Number of climate or streamflow sources by state or country.	104-106
Table 7: Selected historical descriptions of climate or streamflow.	107-115
Table 8: Tree-ring reconstructed extremes and ENSO indices, 1790-1900.	116

Table 1. The 1,733 specific historical sources found in the Brazilian Digital Library (BDL) that mention dryness and wetness in Brazil during the years of tree-ring reconstructed low and high rainfall extremes in the eastern Amazon are numbered sequentially below (column 1). Additional historical references cited in the manuscript are listed at the end of this table (source numbers 1734-1777). The table also lists the year of occurrence (column 2) and the Brazilian state where the anomaly occurred (column 3, abbreviated below). When known, the city, watershed, region, or other South American country of occurrence are also identified (column 4, numbers defined in Table 2, a total of 334 locations in and near Brazil). The specific keyword used to find the citation (Kw, column 5, numbered and translated below), the page number in the BDL where the historical source can be found (Pg, column 6), and the specific column where the source is found on that page are listed under columns 5 (Kw), 6 (Pg), and 7 (C), respectively. The full bibliographic citation for each source is printed in column 8. The citations are listed alphabetically beginning with four secondary sources (No. 1-4), followed by newspapers articles, periodicals, and reports (source numbers 5-1733). Most of these historical sources were newspapers or periodicals that were obtained from the BDL. Several Brazilian government reports in the BDL that referred to climate are listed in column 8, preceded by one asterisk. A few Brazilian historical reports were obtained from the University of Chicago (<http://ddsnext.crl.edu/brazil>) and are indicated in column 8 with two asterisks. Normal font was used for citations to dry conditions and bold font for citations to wetness. When both conditions were identified, “both wet and dry” is stated in column 8. Table 3 summarizes the historical references to drought or wetness by state in Brazil (or other countries). The states of Brazil are listed in column 3 as AL = Alagoas (AL), Amapá (AP), Amazonas (AM), Bahia (BA), Ceará (CE), Espírito Santo (ES), Goiás (GO), Maranhão (MA), Mato Grosso (MT), Mato Grosso do Sul (MS), Minas Gerais (MG), Pará (PA), Paraíba (PB), Paraná (PR), Pernambuco (PE), Piauí (PI), Rio de Janeiro (RJ), Rio Grande do Norte (RN), Rio Grande do Sul (RS), Roraima (RO), Santa Catarina (SC), São Paulo (SP), Sergipe (SE), Tocantins (TO).

To access the original historical sources cited in Table 1, please:

- 1) log into the Brazilian Digital Library at <http://memoria.bn.br/hdb/periodico.aspx>
- 2) enter the name of the journal or reference under “newspaper;”
- 3) enter the decade that the citation refers to under “period;”
- 4) enter the keyword used to find the citation under “search,” typing each keyword or words inside quotation marks. When more than one keyword is provided, enter each keyword inside quotation marks separately but in the same search. If “both wet and dry” is indicated in column 8 then the wet and dry keywords must be searched separately.
- 5) A new tab will display the first match for that decade. Go to the left panel, top folder, to expand all years in that decade. All years with matches for that keyword will be highlighted in blue. All editions with matches will be highlighted in green.
- 6) Find the specific edition for the year mentioned in the citation. Click on the exact edition indicated in the reference and find the match, highlighted in green. It will automatically direct you to the specific page.

7) The page number in the BDL containing the historical document where the citation can be found is listed in column 6 and the column number on the historical document is listed in column 7 of Table 1. The keywords used in this research, corresponding to the numbers in column 5, were: 1 Amazonas (Amazon), 2 aterro (channel fill), 3 bittencourt (bittencourt), 4 caxanga (caxanga), 5 Ceara (Ceara), 6 cheia (full), 7 chuvas (rains), 8 copiosas (copious), 9 Coutinho (Coutinho), 10 coutinho (coutinho), 11 encalhou (ran aground), 12 enchente (flood), 13 Icamiaba (Icamiaba), 14 inundacao (inundation), 15 Leovigildo (Leovigildo), 16 nivel (level), 17 palmos (palms), 18 ponte (bridge), 19 remédios (remédios), 20 rio (river), 21 rio negro (Rio Negro), 22 seca (dry), 23 secca (drought), 24 solimoes (Solimoes), and 25 vasante (ebb). To increase citations during the earliest years of tree-ring reconstructed extremes we also searched on the following years (listed by number under column 5): 1791 (26) 1791, 1792 (27), 1804 (28), 1825 (29), 1833 (30), 1834 (31), 1865 (32), and 1877 (33). Note that images of the original citations are copyright protected by the BDL and therefore could not be reproduced here.

No.	Year	State	City	Kw	Pg	C	Reference
1	1791 1804 1825 1826 1833 1865 1877	CE PB PE RN					Alves, Joaquim. História das Secas. (séculos XVII a XIX). Ed. fac. símile. Fortaleza: Fundação Waldemar Alcântara, 2003.
2	1791 1825 1833	CE PB PE RN					Brasil TPS, 1877. Memória sobre o clima e as secas do Ceará. In: Rosado, Vingt-Un (Org.). Nono livro das secas. Mossoró: Fundação Vingt-Un Rosado/Coleção Mossoroense (Acervo virtual Oswaldo Lamartine de Faria). p. 4-125.
3	1825	CE					Girao, Valdelice Carneiro. O Ceara no Senado Federal. Senado Federal, Centro Gráfico, Brasília, 1992.
4	1791 1825 1865 1877	CE PB RN					Silva, ALP. Considerações Gerais sobre as Províncias do Ceara e Rio Grande do Sul. Typ. União de A. V. Coelho da. Rocha & C.a 137 Rua do Hospício, 1885.
5	1863		166	12	3		A Actualidade: jornal politico, litterario e noticioso (RJ), June 27, ed. 455, 1863.
6	1863	PE		7 8	3		A Actualidade: jornal politico, litterario e noticioso (RJ), July 6, ed. 461, 1863.
7	1863		142	12	2		A Actualidade: jornal politico, litterario e noticioso (RJ), November 23, ed. 577, 1863.

8	1863	SC		23	2		A Actualidade: jornal politico, litterario e noticioso (RJ), December 22, ed. 599, 1863.
9	1863	RS		23	1		A Actualidade: jornal politico, litterario e noticioso (RJ), December 24, ed. 600, 1863.
10	1833	RJ		23	3		A Aurora Fluminense: Jornal Politico e Litterario (RJ), February 22, ed. 737, 1833. "Campos on February 5, 1833".
11	1833	RJ		23	4		A Aurora Fluminense: Jornal Politico e Litterario (RJ), November 20, ed. 843, 1833. "Miscellanea".
12	1833	MG		23	2		A Aurora Fluminense: Jornal Politico e Litterario (RJ), December 6, ed. 850, 1833. "Rio de Janeiro".
13	1833		125	23	4		A Aurora Fluminense: Jornal Politico e Litterario (RJ), December 13, ed. 853, 1833. "Rio de Janeiro".
14	1833	MG		23	2		A Aurora Fluminense: Jornal Politico e Litterario (RJ), February 5, ed. 871, 1834. "Interior".
15	1833	PE		23	3		A Aurora Fluminense: Jornal Politico e Litterario (RJ), March 14, ed. 887, 1834. "Rio de Janeiro".
16	1863		284	23	1		A Coalção (MA), April 8, ed. 28, 1863.
17	1865		117	23	1		A Coalção (MA), February 16, ed. 7, 1865. "Correspondência Particular".
18	1876		207	23	2		A Constituição: Orgão do Partido Conservador (PA), August 2, ed. 172, 1876. "Mala do Amazonas"
19	1877	CE MA PB PE PI RN RS		23	2		A Constituição: Orgão do Partido Conservador (PA), June 12, ed. 132, 1877.
20	1877		119	23	1		A Constituição: Orgão do Partido Conservador (PA), September 4, ed. 202, 1877.
21	1877		20	23	1	1	A Constituição: Orgão do Partido Conservador (PA), October 12, ed. 233, 1877.
22	1877		49 122	23	1		A Constituição: Orgão do Partido Conservador (PA), December 18, ed. 288, 1877.
23	1877		112 208	23	1	5	A Constituição: Orgão do Partido Conservador (PA), December 22, ed. 292, 1877.
24	1891	BA		23	3		A Cruzada: Diario Politico-Religioso, Litterario, Commercial e Noticioso (MA), March 17, ed. 129, 1891.

25	1891	BA	23	3		A Cruzada: Diario Politico-Religioso, Litterario, Commercial e Noticioso (MA), July 16, ed. 227, 1891.	
26	1891	PE	23	3		A Cruzada: Diario Politico-Religioso, Litterario, Commercial e Noticioso (MA), September 8, ed. 267, 1891.	
27	1891		115	23	3	A Cruzada: Diario Politico-Religioso, Litterario, Commercial e Noticioso (MA), October 3, ed. 292, 1891.	
28	1859		157	12	2	2	A Epocha: Folha Politica, Commercial e Noticiosa (PA), June 7, ed. 125, 1859.
29	1891		84	12	2		A Federação: Orgam do Partido Republicano (RS), May 23, ed. 119, 1891.
30	1891		131	12	1		A Federação: Orgam do Partido Republicano (RS), May 27, ed. 122, 1891.
31	1891	BA	23	2			A Federação: Orgam do Partido Republicano (RS), June 10, ed. 134, 1891.
32	1891		333	12	2		A Federação: Orgam do Partido Republicano (RS), August 4, ed. 178, 1891.
33	1891	PE	23	2			A Federação: Orgam do Partido Republicano (RS), August 28, ed. 199, 1891.
34	1891	BA	23	2			A Federação: Orgam do Partido Republicano (RS), November 10, ed. 259, 1891.
35	1891		33	23	1		A Federação: Orgam do Partido Republicano (RS), November 17, ed. 265, 1891.
36	1891		189	12	2		A Federação: Orgam do Partido Republicano (RS), November 23, ed. 270, 1891.
37	1891	SE	23	2			A Federação: Orgam do Partido Republicano (RS), December 8, ed. 283, 1891.
38	1892		167	12	2		A Federação: Orgam do Partido Republicano (RS), February 17, ed. 39, 1892.
39	1892		59	7	2		A Federação: Orgam do Partido Republicano (RS), March 5, ed. 53, 1892.
40	1892		13	23	1		A Federação: Orgam do Partido Republicano (RS), December 14, ed. 283, 1892.
41	1859		76	23	2		A Imprensa (MA), January 22, ed. 7, 1859.
42	1859		265	23	2		A Imprensa (MA), April 20, ed. 32, 1859.
43	1859		87	23	4		A Imprensa (MA), May 11, ed. 38, 1859.
44	1859	SE SE		23	2		A Imprensa (MA), July 9, ed. 55, 1859. Both wet and dry Both wet and dry
45	1859		146	23	1		A Imprensa (MA), December 14, ed. 100, 1859.
46	1859		294	23	1		A Imprensa (MA), December 31, ed. 105, 1859.
47	1791	CE PB PE RN		23 26	2		A Imprensa (MA), January 21, ed. 6, 1860. “A conservacao das matas, e seccas na provinvia do Ceara”.

48	1865	PI		23 32	5	A Imprensa: periódico politico (PI), July 21, ed. 52, 1866. “Assembleia Legislativa Provincial: Acta da 4ª sessão ordinária d’assemblea legislativa do Piauí, aos 12 de julho de 1866”.
49	1877	PB PI		23	4	A Imprensa, periódico politico (PI), May 2, ed. 505, 1877.
50	1877		136	23	2	A Imprensa, periódico politico (PI), May 3, ed. 507, 1877.
51	1877	PI		23	4	A Imprensa, periódico politico (PI), June 9, ed. 508, 1877.
52	1877		122	23	6	A Imprensa, periódico politico (PI), August 11, ed. 514, 1877.
53	1877	PI		23	3	A Imprensa, periódico politico (PI), August 31, ed. 516, 1877. “A Secca”
54	1877		138	23	3	A Imprensa, periódico politico (PI), September 25, ed. 518, 1877.
55	1877	PI		23	2	A Imprensa, periódico politico (PI), September 29, ed. 519, 1877.
56	1877	PI		23	3	A Imprensa, periódico politico (PI), October 31, ed. 522, 1877.
57	1877		122	23	4	A Imprensa, periódico politico (PI), December 10, ed. 526, 1877.
58	1863		51	23	4	A Imprensa de Cuyaba: Periodico Politico, Mercantil e Litterario (MT), December 3, ed. 255, 1863.
59	1865		170	20	1	A Imprensa de Cuyaba: Periodico Politico, Mercantil e Litterario (MT), February 10, ed. 317, 1865. “A Inundação”.
60	1825	CE		23	2	A Liberdade: Jornal Politico, Litterario e Critico (CE), August 17, ed. 104, 1864. “Churinada”.
61	1825 1833	MA		23 30	3	A Nação: Jornal hebdomadario, tem por programa defender os interesses da paz (MA), January 6, ed. 34, 1869. “Historia do Maranhão”.
62	1875	PB		6	3	A Nação: Jornal Politico, Commercial e Litterario (RJ), April 28, ed. 87, 1875.
63	1897		297	23	1	A Nação: Orgão do Partido Republicano Federal (SP), September 11, ed. 42, 1897.
64	1897	RJ		12	3	A Noticia (RJ), January 16, ed. 12, 1897.
65	1897		205	12	3	A Noticia (RJ), January 19, ed. 14, 1897.
66	1897		264	7 8	3	A Noticia (RJ), January 23, ed. 18, 1897.
67	1897	CE		23	3	A Noticia (RJ), February 13, ed. 36, 1897.
68	1897	CE		23	2	A Noticia (RJ), April 9, ed. 84, 1897.
69	1897	CE		7 8	2	A Noticia (RJ), April 16, ed. 89, 1897.
70	1897		172	12	1	A Noticia (RJ), May 12, ed. 111, 1897.

71	1897	PB		7	1	A Noticia (RJ), June 8, ed. 133, 1897.
				8		
72	1897	CE		12	2	A Noticia (RJ), June 17, ed. 141, 1897.
73	1897		162	12	1	A Noticia (RJ), June 23, ed. 146, 1897.
74	1897	RS		12	2	A Noticia (RJ), July 9, ed. 160, 1897.
75	1897	PB		7	1	A Noticia (RJ), July 23, ed. 174, 1897.
				8		
76	1897		147	23	2	A Noticia (RJ), August 12, ed. 190, 1897.
77	1897		328	12	1	A Noticia (RJ), September 10, ed. 215, 1897.
78	1897	SP	100	23	3	A Noticia (RJ), October 2, ed. 233, 1897. Both wet and dry Both wet and dry
79	1897		6	7	1	A Noticia (RJ), November 5, ed. 263, 1897.
				8		
80	1897		172	12	2	A Noticia (RJ), December 1, ed. 289, 1897.
81	1897		58	23	1	A Noticia (RJ), December 25, ed. 312, 1897.
82	1859	CE		23	1	A Patria: Folha da Provincia do Rio de Janeiro (RJ), February 16, ed. 36, 1859.
83	1859		16	7	1	A Patria: Folha da Provincia do Rio de Janeiro (RJ), April 6, ed. 76, 1859.
				8		
84	1875		277	23	2	A Patria: Folha da Provincia do Rio de Janeiro (RJ), January 28, ed. 11, 1875.
85	1875	PB		6	1	A Provincia: Orgão do Partido Liberal (PE), April 9, ed. 554, 1875.
86	1891	PE		23	2	A Provincia: Orgão do Partido Liberal (PE), July 12, ed. 152, 1891.
87	1891		234	12	2	A Provincia: Orgão do Partido Liberal (PE), July 17, ed. 156, 1891.
88	1891		327	6	1	A Provincia: Orgão do Partido Liberal (PE), July 22, ed. 160, 1891.
			323			
89	1891	PE		12	2	A Provincia: Orgão do Partido Liberal (PE), July 31, ed. 168, 1891.
90	1891		133	23	3	A Provincia: Orgão do Partido Liberal (PE), November 21, ed. 262, 1891.
91	1791	BA		23	1	A Provincia: Orgão do Partido Liberal (PE),
		CE		26		December 1, ed. 271, 1909. "As seccas".
		MA				
		PE				
		PI				
		SE				
92	1875	PB		6	2	A Reforma: Orgão Democratico (RJ), April 27, ed. 91, 1875.
93	1875		249	6	1	A Reforma: Orgão Democratico (RJ), May 8, ed. 100, 1875.
94	1875	PB		6	2	A Reforma: Orgão Democratico (RJ), May 9, ed. 101, 1875.

95	1875		190	6	2		A Reforma: Orgão Democratico (RJ), May 21, ed. 111, 1875.
96	1875		190	6	2		A Reforma: Orgão Democratico (RJ), May 22, ed. 112, 1875.
97	1859		157	12	3	1	A Regeneracao: Periodico Politico, Commercial, Noticioso e Litterario (PA), June 19, ed. 15, 1873.
98	1875		190	6	2		A Regeneração: Periodico Politico, Commercial, Noticioso e Litterario (PA), May 20, ed. 6, 1875.
99	1877	RS		23	2		A Regeneracao, jornal da provincial de Santa Catharina (SC), January 28, ed. 840, 1877.
100	1891	CE		23	1		A Republica (PA), March 3, ed. 306, 1891.
101	1891	AL		23	2		A Republica (PA), June 14, ed. 389, 1891.
102	1891		207	12	2	3	A Republica (PA), June 18, ed. 392, 1891.
103	1891	BA		23	2		A Republica (RJ), January 14, ed. 10, 1891.
104	1891		333	23	2		A Republica (RJ), January 28, ed. 22, 1891.
105	1891	BA		23	2		A Republica (RJ), March 10, ed. 56, 1891.
106	1891	SE		23	2		A Republica (RJ), April 29, ed. 97, 1891.
107	1891	RN		23	2		A Republica (RJ), June 18, ed. 138, 1891.
108	1891		189	12	1		A Republica (RJ), June 28, ed. 146, 1891.
			234				
109	1891		234	12	1		A Republica (RJ), July 8, ed. 154, 1891.
110	1891		189	12	1		A Republica (RJ), July 16, ed. 161, 1891.
111	1891	RN		23	2		A Republica (RJ), July 18, ed. 163, 1891.
112	1891	PE		23	1		A Republica (RJ), August 6, ed. 179, 1891.
113	1891	PE		23	2		A Republica (RJ), August 13, ed. 185, 1891.
114	1891	BA		23	2		A Republica (RJ), September 17, ed. 214, 1891.
115	1892		281	12	1		A Republica (RJ), March 25, ed. 70, 1892.
							“Grande Enchente”
116	1892		169	12	1		A Republica (RJ), July 14, ed. 135, 1892. “Os Desterrados”
117	1892		4	23	2		A Republica: Fusão do Libertador e Estado do Ceara (CE), November 24, ed. 182, 1892.
118	1892		66	23	2		A Republica: Fusão do Libertador e Estado do Ceara (CE), December 31, ed. 213, 1892(newspaper).
			154				
			201				
			289				
			294				
			299				
119	1897		1	23	1		A Republica: Fusão do Libertador e Estado do Ceara (CE), January 13, ed. 9, 1897.
120	1897		285	23	1		A Republica: Fusão do Libertador e Estado do Ceara (CE), January 26, ed. 20, 1897.
121	1897		144	7	1		A Republica: Fusão do Libertador e Estado do Ceara (CE), February 8, ed. 30, 1897.
				8			
122	1897		263	23	1		A Republica: Fusão do Libertador e Estado do Ceara (CE), February 19, ed. 40, 1897.

123	1897		235	12	1	A Republica: Fusão do Libertador e Estado do Ceara (CE), April 7, ed. 78, 1897.
124	1897		199	12	1	A Republica: Fusão do Libertador e Estado do Ceara (CE), April 10, ed. 81, 1897.
125	1897	PR		23	4	A Republica: Fusão do Libertador e Estado do Ceara (CE), May 24, ed. 117, 1897.
126	1897	RS		12	4	A Republica: Fusão do Libertador e Estado do Ceara (CE), July 9, ed. 152, 1897.
127	1791	CE		23 26	1	A Republica: Fusão do Libertador e Estado do Ceara (CE), , October 15, ed. 234, 1897. "O estado do Ceara".
128	1892		116	12	2	A Republica: Orgam do Partido Republicano (PR), March 12, ed. 634, 1892.
129	1892		54	23	2	A Republica: Orgam do Partido Republicano (PR), August 13, ed. 736, 1892.
130	1897		162	12	1	A Republica: Orgam do Partido Republicano (PR), June 25, ed. 134, 1897.
131	1791	RN		23 26	1	A Republica: Orgam do Partido Republicano (PR), December 28, ed. 304, 1907. "O dia".
132	1825	CE		23 29	3	A Revista: Folha Politica e Literaria (MA), February 19, ed. 430, 1848. "Maranhao".
133	1850		178	23	2	A Revista: Folha Politica e Literaria (MA), May 28, ed. 548, 1850.
134	1853	CE		23	1	A União: Jornal Politico, Litterario e Commercial (SE), April 1, ed. 63, 1853. "Ceara".
135	1850	CE		7 8	1	A União: Virtus unita crescil (PE), June 4, ed. 261, 1850.
136	1850		198	12	3	A União: Virtus unita crescil (PE), October 29, ed. 318, 1850.
137	1833	MG RS	221	23	2	A Verdade, Jornal Miscellanico (RJ), February 21, ed. 145, 1833. "Interior". Both wet and dry
138	1833	PE		23	3	A Verdade, Jornal Miscellanico (RJ), September 24, ed. 225, 1833. "Rio de Janeiro".
139	1833		221	12	3	A Verdade, Jornal Miscellanico (RJ), January 28, ed. 269, 1834.
140	1825	CE		23	4	Abelha do Itaculomy (MG), June 29, ed. 77, 1825.
141	1791	BA CE MA PE PI SE		23 26	169 1	* Almanach Administrativo, Estatistico, Mercantil, Industrial e Litterario do Estado do Ceará (CE), para o anno de 1903 confeccionado por João Camara. Anno 9, Fortaleza, 1902. "Seccas do Ceara".
142	1833		259	23 30	214 1	* Almanak administrativo, Civil e Industrial (RJ), da província de Minas Geraes para o anno de

							1864, organizado e redigido por A. de Assis Martins e J. Marques de Oliveira. 1o anno. Rio de Janeiro, 1864.
143	1865		69	23 32	139 3	1	* Almanak Administrativo, Mercantil e Industrial do Rio de Janeiro (RJ), da Corte e Provincia do Rio de Janeiro para o anno de 1865, Fundado por Eduardo Von Laemmert, consul de sua alteza real o grão-duque de Baden, Cavalleiro da Imperial Ordem Brasileira da Rosa da Real Ordem Portuguesa de N. S. Jesus Christo da Ordem Grãa-Ducal Badense do Leão de Zaehringue e da Americana Real Ordem Hespanhola de Isabel a Catholica Membro Correspondente do Instituto Historico e Geographico do Brasil e honorário da Imperial Associação Typographica Fluminense. Redigida por Carlos Guilherme Haring cidadão brasileiro actual presidente da Imperial Associação typographica Fluminense. Vigésimo-segundo anno. Rio de Janeiro, 1865. “Suplemento”.
144	1865		190	23	101	1	* Almanak Administrativo, Mercantil e Industrial (MA), para o anno de 1865: Primeiro depois do bissexto. Oitavo anno (segunda serie.) Edictor B. de Mattos. Almanak do Maranhão, 1865. “Vapores da Companhia: Navegação fluvial”.
145	1791	PB		23	57	1	* Almanak historico de lembranças Brasileiras (MA), coordenadas e escriptas por Cezar Augusto Marques, Doutor em medicina, membro honorado da real sociedade humanitária do porto, sócio correspondente da sociedade de sciencias medicas de Lisboa, da auxiliadora da indústria nacional do Rio de Janeiro. 1o anno, ed. 1, 1862. Maranhão, 1861.
146	1791 1825	CE PB PE RN		23 26	142	1	* Almanak Literario e Estatistico (RS), do Rio Grande do Sul para 1898 com o retrato e a biografia do general Rio-Grandense José Gomes Portinho enriquecido com muitos outros retratos e biografias de brasileiros illustres, com numerosas illustrações e materiais de utilidade publica organizado por Alfredo Ferreira Rodrigues do Instituto Historico e Geographico Brasileiro. Decimo Anno “A secca no norte do Brazil”.
147	1791 1825	PB		23 26	196	1	* Almanak Literario e Estatistico (RS), do Rio Grande do Sul organizado por Alfredo Ferreira Rodrigues. 18 Anno. 1906. “O Cariry”.

148	1833		108	23 30	83	1	* Anais da Biblioteca Nacional (RJ), do Rio de Janeiro, ed. 62, volume LXII, 1940. "Capitulo VIII: Gongo-Soco-Minas de ouro-Rochedos-Vegetacao-Animais-Estacao chuvosa-Caete".
149	1791	PE		23 26	227	1	* Anais da Biblioteca Nacional (RJ), vol 71, 1951. "Oficio de Tomas Jose de Melo, Governador de Pernambuco, a D. Fernando Jose de Portugal, expondo a situação da Capitania devido a seca de 1791, e pedindo carregar, com farinha de pau, dois barcos que seguiam para a Bahia. Recife, 26/março/1792."
150	1825	CE PB RN		23 29	17	1	* Annaes da Medicina Pernambucana (PE), Ano II, Numero IV, 1843.
151	1826		7	23	220	2	* Annaes do Parlamento Brasileiro (RJ), Camara dos Srs Deputados, Primeiro Anno da Primeira Legislatura, ed. 00004, Sessão de 1826, Tomo Quarto e Ultimo. Sessão em 21 de Agosto, 1826.
152	1826	PB		23	129	1	* Annaes do Parlamento Brasileiro (RJ), Camara dos Srs Deputados, Segundo Anno da Primeira Legislatura, ed. 00001, Sessão de 1827, Tomo Primeiro. Sessão em 19 de Maio 19, 1827.
153	1825	CE PB		23 29	210	2	* Annaes do Parlamento Brasileiro (RJ), Camara dos Srs. Deputados. Segundo Anno da Primeira Legislatura, ed. 00004, Sessao de 1827. Tomo 4. "Sessao em 23 de Agosto de 1827".
154	1825	CE		23 29	444	2	* Annaes do Parlamento Brasileiro (RJ), Camara dos Srs Deputados. Primeiro Anno da Segunda Legislatura, ed. 00002, Sessao de 1830, colligidos por Antonio Pereira Pinto. Em virtude de Resolução da mesma Camara. Tomo Segundo. "Sessao em 28 de Agosto de 1830".
155	1825	PB		23 30	652	2	* Annaes do Parlamento Brasileiro (RJ), Camara dos Srs Deputados. Terceiro Anno da Quarta Legislatura. Sessão de 1840 colligidos por Antonio Henoch dos Reis. Em virtude de resolução da mesma Camara. Tomo Segundo. "Sessão em 19 de Agosto de 1840".
156	1833		55	23 30	885	2	* Annaes do Parlamento Brasileiro (RJ), Camara dos Srs Deputados. Primeiro Anno da Quinta Legislatura. Primeira sessão de 1843 colligidos por Antonio Henoch dos Reis. Em virtude de resolução da mesma Camara. Tomo Segundo, ed. 00002A, "Sessão em 25 de Abril de 1843", "Sessão em 1 de Setembro de 1843".

157	1791 1825	CE		23 29	278	1	* Annaes do Parlamento Brasileiro (RJ), Camara dos Srs Deputados. Terceiro Anno da Sexta Legislatura, ed. 00002, Sessao de 1846, coligidos por Antonio Pereira Pinto em virtude de resolução da mesma Camara. Tomo Segundo. "Sessao em 22 de Julho de 1846".
158	1853	CE		23	4	2	* Annaes do Parlamento Brasileiro. Camara dos Srs. Deputados. Primeiro Anno da Nona Legislatura, ed. 00003, Sessão de 1853. Tomo Terceiro. "Sessão em 1, 6, 9, 22, 26, de Julho".
159	1825	CE		23	344	1	* Annaes do Parlamento Brasileiro (RJ), Camara dos Srs Deputados. Primeiro Anno da Nona Legislatura, ed. 00004, Sessao de 1853. Tomo Quarto. "Sessao em 24 de Agosto de 1853".
160	1865	BA		23 32	57	2	* Annaes do Parlamento Brasileiro (RJ), Camara dos Srs. Deputados. Terceiro anno da duodécima legislatura, ed. 00002, Sessão de 1865. Tomo 2. "Sessao em 7 de Junho de 1865".
161	1825	CE RN		23 29	1		Astrea (RJ), September 1, ed. 181, 1827. "Correspondencias".
162	1825		9	23 29	2		Astrea (RJ), ed. 80, 1832. "Correspondencia".
163	1829		140	12	4	1	Astro de Minas (MG), May 9, ed. 230, 1829.
164	1829	MG		7 8	1	2	Astro de Minas (MG), December 24, ed. 328, 1829.
165	1865	BA		23 32	298	1	* Balanço da Receita e Despesa do Imperio (RJ), no exercicio de 1866-1867 e estado da divida activa e passiva, ed. 00001, Rio de Janeiro, 1869. "Balanços e quadros diversos".
166	1833	CE			5		** Brasil, Falla que o Exm. Sr. Desembargador Joaquim da Costa Barradas Presidente da Província do Ceará dirigio a respectiva Assembleia Legislativa no dia 1 de Setembro de 1886 por ocasião da instalação de sua sessão ordinária e officio com que o mesmo Exm. Sr. Passou a administração da Província ao Exm. Sr. Dr. Eneas de Araujo Torreão no dia 21 do referido mez. Ceara, 1886. "Annexo 4: Agricultura e Industria".
167	1865	RJ	194 157				** Brasil, Ministério da Agricultura. Ministro (Antonio Francisco de Paula Souza). Relatório do anno de 1865 apresentado a Assembleia Geral Legislativa na 4a sessão da 12a Legislatura. (Publicado em 1866) "Annexo M: Exploração do Ivahy, pg. 13", "Encanamento das laranjeiras, pg. 45", "Reservatório em Santa Theresa", "Annexo

168	1865	SP		22	8	1	P, Dos mananciais aproveitados, pg. 5”, "Anexo C-D: Invasão do mar na foz do Amazonas"
							** Brasil, Ministério da Agricultura. Ministro (Antonio da Silva Prado). Relatório do anno de 1885 apresentado à Assembléia Geral na 1a Sessão da 20a Legislatura. (Publicado em 1886). Anexo P: Fábrica de Ferro de São João de Ipanema. Relatório apresentado ao Ministerio dos Negocios da Agricultura, Commercio e Obras Publicas pelo director Joaquim de Souza Mursa, 1886. “Conclusão”.
169	1877	CE		5	56	1	** Brasil, Ministério da Fazenda. Ministro (Francisco de Paula Rodrigues Alves). Relatório Apresentado ao Presidente da Republica dos Estados Unidos do Brazil pelo Ministro de Estado dos Negocios da Fazenda Francisco de Paula Rodrigues Alves no anno de 1896. 8º da Republica. Rio de Janeiro, 1896.
170	1853	CE		23	44	1	* Brasil. Ministério do Império : Relatorio da Repartição dos Negocios do Imperio (RJ), Ministro (Luiz Pedreira do Couto Ferraz). Relatório do anno de 1853 apresentado a Assembléia Geral Legislativa na 2a sessão da 9a Legislatura: Relatório apresentado a Assembléia Geral Legislativa na segunda sessão da nona legislatura pelo Ministro e secretario de Estado dos Negocios do Imperio Luiz Pedreira do Couto Ferraz. 1854. "Ceará"
171	1791	CE		23 26	385	1	* Brasil. Ministério do Império : Relatorio da Repartição dos Negocios do Imperio (RJ), Ministro (Pedro de Araujo Lima). Publicado em 1858. Relatório do anno 1857 apresentado a Assembléia Geral Legislativa na 2a sessão da 10a Legislatura pelo ministro e secretario d’estado dos negócios do Imperio Marquez de Olinda. Rio de Janeiro. “Parecer da comissao encarregada pelo Exmo Sr. presidente da província para consultar sobre as causas da carestia dos gêneros alimenticios”
172	1865	CE	170	23	25	1	* Brasil. Ministério do Império : Relatorio da Repartição dos Negocios do Imperio (RJ), Ministro (Pedro de Araujo Lima). Relatório do anno 1865 apresentado a Assembléia Geral Legislativa na 4a sessão da 12a Legislatura. (Publicado em 1866) Relatório apresentado à Assembléia Geral Legislativa na quarta sessão da

						decima segunda legislatura pelo ministro e secretário de estado dos negocios do Imperio Marquez de Olinda. Rio de Janeiro, 1866. “Alimentação Publica” Both wet and dry Both wet and dry	
173	1833		223	9		** Brasil, Relatório da Quarta Secção das obras publicas da província do Rio de Janeiro apresentado a respectiva directoria em Janeiro de 1844 por Jose Xavier Garcia D’Almeida, Major do Imperial corpo de engenheiros e chefe da mesma secção. “Edifícios Públicos: Matriz de S. Fidelis”.	
174	1897		226	12	1	Cidade do Rio (RJ), February 10, ed. 41, 1897.	
175	1897		325	12	1	Cidade do Rio (RJ), March 9, ed. 68, 1897.	
176	1897		172	12	1	Cidade do Rio (RJ), May 12, ed. 125, 1897.	
177	1897	SE		12	1	Cidade do Salvador (BA), July 27, ed. 184, 1897.	
178	1891	BA CE		23	1	Commercio do Amazonas (AM), October 27, ed. 58, 1891.	
179	1892		213	12	2	Commercio do Espirito Santo (ES), July 25, ed. 565, 1892.	
180	1892	ES		12	1	Commercio do Espirito Santo (ES), December 12, ed. 704, 1892. “Chuvvas Torrenciais”	
181	1897	ES		7	1	Commercio do Espirito Santo (ES), May 15, ed. 112, 1897.	
182	1863		128	7	4	Constitucional (RJ), February 15, ed. 36, 1863.	
183	1863	MT	178	12	4	Constitucional (RJ), April 26, ed. 91, 1863. Both wet and dry Both wet and dry	
184	1865		124	23	2	Constitucional Pernambucano (PE), April 1, ed. 10, 1865. “Publicação a pedido”.	
185	1865		59	23	3	Constitucional Pernambucano (PE), May 3, ed. 13, 1865 (newapaper). “Correspondencia from Fortaleza on April 12, 1865”.	
186	1877	RS		23	2	Correio da Bahia: O Correio da Bahia é propriedade de uma Associação (BA), May 29, ed. 53, 1877.	
187	1877	CE PB PE	56	23	1	Correio da Bahia: O Correio da Bahia é propriedade de uma Associação (BA), June 6, ed. 59, 1877.	
188	1877	CE PB RN SE		23	2	2 3 4	Correio da Bahia: O Correio da Bahia é propriedade de uma Associação (BA), October 31, ed. 180, 1877.
189	1877	PE	208	23	2	Correio da Bahia: O Correio da Bahia é propriedade de uma Associação (BA), December 6, ed. 210, 1877.	

190	1877	RS		23	2	Correio da Bahia: O Correio da Bahia é propriedade de uma Associação (BA), january 20, ed. 241, 1877.
191	1877	PR RS		23	2	Correio da Bahia: O Correio da Bahia é propriedade de uma Associação (BA), February 6, ed. 254, 1877.
192	1877	RS		23	2	Correio da Bahia: O Correio da Bahia é propriedade de uma Associação (BA), February 20, ed. 266, 1877.
193	1850	BA		7 8	2	Correio da Victoria (ES), May 15, ed. 39,1850.
194	1850		172	23	2	Correio da Victoria (ES), May 18, ed. 40, 1850.
195	1850		311	12	4	Correio da Victoria (ES), September 8, ed. 75, 1850.
196	1859	BA		23	3	Correio da Victoria (ES), April 16, ed. 31, 1859.
197	1833		42	12	1	Correio Mercantil (RJ), February 20, ed. 41, 1833.
198	1833		219	12	1	Correio Mercantil (RJ), February 28, ed. 48, 1833.
199	1833		219	12	1	Correio Mercantil (RJ), March 12, ed. 58, 1833.
200	1850		281	14	1	Correio Mercantil: Mercantil, e Instructivo, Politico, Universal (RJ), January 12, ed. 12, 1850. "Inundacao"
201	1850		281	14	1	Correio Mercantil: Mercantil, e Instructivo, Politico, Universal (RJ), January 18, ed.18, 1850. "A Inundacao de S. Paulo"
202	1850		178	22	2	Correio Mercantil: Mercantil, e Instructivo, Politico, Universal (RJ), March 25, ed. 82, 1850.
203	1850		198	8	2	Correio Mercantil: Mercantil, e Instructivo, Politico, Universal (RJ), October 11, ed. 254, 1850.
204	1853		119	23	2	Correio Mercantil: Mercantil, e Instructivo, Politico, Universal (RJ), January 12, ed. 12, 1853. "Província do Rio de Janeiro: Abastecimento de água potável em Nitherohy".
205	1853	BA		23	2	Correio Mercantil: Mercantil, e Instructivo, Politico, Universal (RJ), February 24, ed. 55, 1853.
206	1853		59	23	1	Correio Mercantil: Mercantil, e Instructivo, Politico, Universal (RJ), March 1, ed. 60, 1853. "Interior: Ceara, Correspondência Particular. Fortaleza on February 10, 1853".
207	1853	CE RN		23	2	Correio Mercantil: Mercantil, e Instructivo, Politico, Universal (RJ), March 14, ed. 73, 1853.
208	1853		219	12	1	Correio Mercantil: Mercantil, e Instructivo, Politico, Universal (RJ), March 15, ed. 74, 1853.

209	1853	CE	23	1	Correio Mercantil: Mercantil, e Instructivo, Politico, Universal (RJ), March 17, ed. 76, 1853. “A secca no Ceara”.	
210	1853	CE	23	1	Correio Mercantil: Mercantil, e Instructivo, Politico, Universal (RJ), March 21, ed. 80, 1853. “Correspondências”.	
211	1825 1853	CE	23	1	Correio Mercantil: Mercantil, e Instructivo, Politico, Universal (RJ), March 22, ed. 81, 1853. “Ceara: A Secca”.	
212	1853	BA CE MA PE	23	1	Correio Mercantil: Mercantil, e Instructivo, Politico, Universal (RJ), March 30, ed. 89, 1853.	
213	1853	CE	23	1	Correio Mercantil: Mercantil, e Instructivo, Politico, Universal (RJ), March 31, ed. 90, 1853. “Ceara: A Secca”.	
214	1853	CE	23	2	Correio Mercantil: Mercantil, e Instructivo, Politico, Universal (RJ), April 1, ed. 91, 1853. “Secca do Ceara”.	
215	1853	BA PE	23	2	Correio Mercantil: Mercantil, e Instructivo, Politico, Universal (RJ), April 9, ed. 99, 1853.	
216	1853	CE MA	23	1	Correio Mercantil: Mercantil, e Instructivo, Politico, Universal (RJ), April 19, ed. 109, 1853 (nespaper).	
217	1853	CE	23	1	Correio Mercantil: Mercantil, e Instructivo, Politico, Universal (RJ), April 21, ed. 111, 1853. “Interior: Ceara”.	
218	1853		239	23	1	Correio Mercantil: Mercantil, e Instructivo, Politico, Universal (RJ), May 2, ed. 122, 1853. “Exploração do rio de S. Francisco”.
219	1853		59	23	1	Correio Mercantil: Mercantil, e Instructivo, Politico, Universal (RJ), May 18, ed. 138, 1853. “Interior: Ceara”.
220	1853		152	12	1	Correio Mercantil: Mercantil, e Instructivo, Politico, Universal (RJ), May 20, ed. 140, 1853.
221	1853		172	12	1	Correio Mercantil: Mercantil, e Instructivo, Politico, Universal (RJ), May 21, ed. 141, 1853.
222	1853		172	12	1	Correio Mercantil: Mercantil, e Instructivo, Politico, Universal (RJ), May 24, ed. 144, 1853.
223	1853		172	12	1	Correio Mercantil: Mercantil, e Instructivo, Politico, Universal (RJ), May 25, ed. 145, 1853.
224	1853		172	12	2	Correio Mercantil: Mercantil, e Instructivo, Politico, Universal (RJ), July 3, ed. 184, 1853.
225	1853	CE MA	23	2	Correio Mercantil: Mercantil, e Instructivo, Politico, Universal (RJ), July 16, ed. 197, 1853. “Interior: Ceara”.	

226	1853	CE	23	3	Correio Mercantil: Mercantil, e Instructivo, Politico, Universal (RJ), August 4, ed. 216, 1853.
227	1853	CE PB RN	23	2	Correio Mercantil: Mercantil, e Instructivo, Politico, Universal (RJ), August 27, ed. 239, 1853. "Discurso pronunciado pelo Sr. D. Manoel na sessão de 18 de August".
228	1853	CE	23	1	Correio Mercantil: Mercantil, e Instructivo, Politico, Universal (RJ), August 31, ed. 243, 1853. "Ceara: Fortaleza on August 12, 1853".
229	1853	CE	23	1	Correio Mercantil: Mercantil, e Instructivo, Politico, Universal (RJ), September 27, ed. 270, 1853. "Interior: Ceara".
230	1853	CE	23	2	Correio Mercantil: Mercantil, e Instructivo, Politico, Universal (RJ), November 8, ed. 311, 1853. "Ceara: Fortaleza on October 22, 1853".
231	1853	CE	23	2	Correio Mercantil: Mercantil, e Instructivo, Politico, Universal (RJ), November 9, ed. 312, 1853. "Ceara: Fortaleza on October 23, 1853".
232	1833		327 23 30	1	Correio Mercantil: Mercantil, e Instructivo, Politico, Universal (RJ), December 25, ed. 349, 1858. "O rio Parana".
233	1859		147 280 8	1	Correio Mercantil: Mercantil, e Instructivo, Politico, Universal (RJ), January 3, ed. 3, 1859.
234	1859		219 12	1	Correio Mercantil: Mercantil, e Instructivo, Politico, Universal (RJ), January 6, ed. 6, 1859.
235	1859	CE	23	1	Correio Mercantil: Mercantil, e Instructivo, Politico, Universal (RJ), January 10, ed. 10, 1859.
236	1833		221 23 30	1	Correio Mercantil: Mercantil, e Instructivo, Politico, Universal (RJ), January 12, ed. 12, 1859. "Noticias Diversas".
237	1859		303 8	2	Correio Mercantil: Mercantil, e Instructivo, Politico, Universal (RJ), January 14, ed. 14, 1859.
238	1859		270 7 8	4	Correio Mercantil: Mercantil, e Instructivo, Politico, Universal (RJ), January 18, ed. 18, 1859.
239	1859		219 12	1	Correio Mercantil: Mercantil, e Instructivo, Politico, Universal (RJ), January 21, ed. 21, 1859.
240	1859	CE	23	1	Correio Mercantil: Mercantil, e Instructivo, Politico, Universal (RJ), January 24, ed. 24, 1859.
241	1859	CE	23	1	Correio Mercantil: Mercantil, e Instructivo, Politico, Universal (RJ), January 26, ed. 26, 1859.
242	1859		219 12	1	Correio Mercantil: Mercantil, e Instructivo, Politico, Universal (RJ), January 27, ed. 27, 1859.
243	1859		284 23	1	Correio Mercantil: Mercantil, e Instructivo, Politico, Universal (RJ), February 18, ed. 44, 1859.

244	1859		116	12	1		Correio Mercantil: Mercantil, e Instructivo, Politico, Universal (RJ), February 16, ed. 47, 1859.
245	1859	BA PA		8 23	1		Correio Mercantil: Mercantil, e Instructivo, Politico, Universal (RJ), February 16, ed. 57, 1859. Both wet and dry Both wet and dry
246	1859		178	23	4		Correio Mercantil: Mercantil, e Instructivo, Politico, Universal (RJ), March 24, ed. 83, 1859.
247	1859		274	7 8	2		Correio Mercantil: Mercantil, e Instructivo, Politico, Universal (RJ), April 7, ed. 96, 1859.
248	1859		158	12	2		Correio Mercantil: Mercantil, e Instructivo, Politico, Universal (RJ), April 8, ed. 97, 1859.
249	1859		87	23	1		Correio Mercantil: Mercantil, e Instructivo, Politico, Universal (RJ), April 10, ed. 99, 1859.
250	1859		172	12	1		Correio Mercantil: Mercantil, e Instructivo, Politico, Universal (RJ), April 15, ed. 104, 1859.
251	1859		172	12	2		Correio Mercantil: Mercantil, e Instructivo, Politico, Universal (RJ), April 24, ed. 113, 1859.
252	1859		220	8	1		Correio Mercantil: Mercantil, e Instructivo, Politico, Universal (RJ), May 13, ed. 131, 1859.
253	1859		157	12	1	1	Correio Mercantil: Mercantil, e Instructivo, Politico, Universal (RJ), May 28, ed. 146, 1859.
254	1859		157	12	2	1	Correio Mercantil: Mercantil, e Instructivo, Politico, Universal (RJ), May 29, ed. 147, 1859.
255	1859	RN		7 8	1		Correio Mercantil: Mercantil, e Instructivo, Politico, Universal (RJ), May 31, ed. 149, 1859.
256	1859	PB	157 162	8 1 17	1		Correio Mercantil: Mercantil, e Instructivo, Politico, Universal (RJ), June 15, ed. 163, 1859.
257	1859		157	12	1	2	Correio Mercantil: Mercantil, e Instructivo, Politico, Universal (RJ), June 27, ed. 175, 1859.
258	1859	PR		23	1		Correio Mercantil: Mercantil, e Instructivo, Politico, Universal (RJ), July 8, ed. 184, 1859.
259	1859		156 202 237	12 8	1	1	Correio Mercantil: Mercantil, e Instructivo, Politico, Universal (RJ), July 13, ed. 191, 1859.
260	1859		157	23	1		Correio Mercantil: Mercantil, e Instructivo, Politico, Universal (RJ), August 13, ed. 222, 1859.
261	1859		317	23	4		Correio Mercantil: Mercantil, e Instructivo, Politico, Universal (RJ), October 2, ed. 269, 1859.
262	1859		54	23	1		Correio Mercantil: Mercantil, e Instructivo, Politico, Universal (RJ), October 8, ed. 275, 1859.

263	1859		172	23	1	Correio Mercantil: Mercantil, e Instructivo, Politico, Universal (RJ), October 29, ed. 296, 1859.
264	1859		172	23	1	Correio Mercantil: Mercantil, e Instructivo, Politico, Universal (RJ), November 19, ed. 317, 1859.
265	1859		241	8	1	Correio Mercantil: Mercantil, e Instructivo, Politico, Universal (RJ), November 23, ed. 321, 1859.
266	1791	CE		23	1	Correio Mercantil: Mercantil, e Instructivo, Politico, Universal (RJ), June 14, ed. 164, 1860.
	1825	PB		26		“Considerações: Acerca dos melhoramentos de que em relação as secas são susceptíveis algumas províncias do norte do Brasil”.
		PE		30		
267	1863	MG RJ SP		12	1	Correio Mercantil: Mercantil, e Instructivo, Politico, Universal (RJ), January 22, ed. 22, 1863.
268	1863		128	12	2	Correio Mercantil: Mercantil, e Instructivo, Politico, Universal (RJ), January 29, ed. 29, 1863.
269	1863	RJ		12	2	Correio Mercantil: Mercantil, e Instructivo, Politico, Universal (RJ), February 2, ed. 33, 1863.
270	1863		134	12	1	Correio Mercantil: Mercantil, e Instructivo, Politico, Universal (RJ), February 8, ed. 39, 1863.
271	1863		250	12	1	Correio Mercantil: Mercantil, e Instructivo, Politico, Universal (RJ), March 1, ed. 59, 1863.
272	1863		56	23	2	Correio Mercantil: Mercantil, e Instructivo, Politico, Universal (RJ), March 6, ed. 64, 1863.
273	1863		220	12	2	Correio Mercantil: Mercantil, e Instructivo, Politico, Universal (RJ), March 12, ed. 70, 1863.
274	1863		302	12	1	Correio Mercantil: Mercantil, e Instructivo, Politico, Universal (RJ), March 15, ed. 73, 1863.
275	1863	AL		7	1	Correio Mercantil: Mercantil, e Instructivo, Politico, Universal (RJ), April 25, ed. 113, 1863.
				8		
276	1863	CE	91	7	1	Correio Mercantil: Mercantil, e Instructivo, Politico, Universal (RJ), May 25, ed. 143, 1863.
		MA	92	8		
277	1863		156	12	1	1 Correio Mercantil: Mercantil, e Instructivo, Politico, Universal (RJ), July 14, ed. 192, 1863.
278	1863		39	23	1	Correio Mercantil: Mercantil, e Instructivo, Politico, Universal (RJ), August 21, ed. 229, 1863.
279	1863		282	12	1	Correio Mercantil: Mercantil, e Instructivo, Politico, Universal (RJ), September 5, ed. 244, 1863.
280	1863	RS		23	1	Correio Mercantil: Mercantil, e Instructivo, Politico, Universal (RJ), November 16, ed. 315, 1863.

281	1863		39	23	3	Correio Mercantil: Mercantil, e Instructivo, Politico, Universal (RJ), December 10, ed. 338, 1863.
282	1865	PR		23	1	Correio Mercantil: Mercantil, e Instructivo, Politico, Universal (RJ), January 8, ed. 8, 1865. "Interior: Parana".
283	1865		131	23	2	Correio Mercantil: Mercantil, e Instructivo, Politico, Universal (RJ), January 24, ed. 21, 1865. "Rio Grande".
284	1865		165	23	2	Correio Mercantil: Mercantil, e Instructivo, Politico, Universal (RJ), February 6, ed. 37, 1865. "Private letter from Rio Claro".
285	1865		142	23	2	Correio Mercantil: Mercantil, e Instructivo, Politico, Universal (RJ), February 9, ed. 40, 1865. "Lê-se no Mercantil de Porto Alegre".
286	1865		147 216	23	2	Correio Mercantil: Mercantil, e Instructivo, Politico, Universal (RJ), February 19, ed. 50, 1865. Both wet and dry Both wet and dry
287	1865	RN		23	1	Correio Mercantil: Mercantil, e Instructivo, Politico, Universal (RJ), March 13, ed. 72, 1865. "Interior: Rio Grande do Norte".
288	1865		239	12	1	Correio Mercantil: Mercantil, e Instructivo, Politico, Universal (RJ), May 6, ed. 124, 1865.
289	1865	RS		23	3	Correio Mercantil: Mercantil, e Instructivo, Politico, Universal (RJ), May 8, ed. 126, 1865. "Rio Grande, 28 de abril de 1865".
290	1865	RN		23	1	Correio Mercantil: Mercantil, e Instructivo, Politico, Universal (RJ), June 28, ed. 175, 1865.
291	1865		170	12	2	Correio Mercantil: Mercantil, e Instructivo, Politico, Universal (RJ), July 7, ed. 184, 1865.
292	1865		328	12	1	Correio Mercantil: Mercantil, e Instructivo, Politico, Universal (RJ), July 22, ed. 199, 1865.
293	1865		328	12	1	Correio Mercantil: Mercantil, e Instructivo, Politico, Universal (RJ), July 29, ed. 206, 1865.
294	1865		142	12	1	Correio Mercantil: Mercantil, e Instructivo, Politico, Universal (RJ), September 11, ed. 248, 1865.
295	1865		226	12	1	Correio Mercantil: Mercantil, e Instructivo, Politico, Universal (RJ), October 24, ed. 290, 1865.
296	1865	RS		23	1	Correio Mercantil: Mercantil, e Instructivo, Politico, Universal (RJ), November 20, ed. 316, 1865. "Rio Grande".
297	1865	BA		23	2	Correio Mercantil: Mercantil, e Instructivo, Politico, Universal (RJ), November 26, ed. 322, 1865. "A estrada do Paraguassu".

298	1833		172	23	3	Correio Official: In Medio Posita Virtus (RJ), August 19, ed. 41, 1833.
299	1833		172	23	2	Correio Official: In Medio Posita Virtus (RJ), August 24, ed. 46, 1833.
300	1833		172	23	2	Correio Official: In Medio Posita Virtus (RJ), August 26, ed. 47, 1833.
301	1833		172	23	2	Correio Official: In Medio Posita Virtus (RJ), August 26, ed. 49, 1833.
302	1833		219	12	1	Correio Official: In Medio Posita Virtus (RJ), September 9, ed. 59, 1833.
303	1833		219	12	1	Correio Official: In Medio Posita Virtus (RJ), September 12, ed. 62, 1833.
304	1833	RJ		23	4	Correio Official: In Medio Posita Virtus (RJ), September 23, ed. 71, 1833.
305	1833		172	23	1	Correio Official: In Medio Posita Virtus (RJ), October 14, ed. 90, 1833.
306	1833		172	23	2	Correio Official: In Medio Posita Virtus (RJ), November 6, ed. 109, 1833.
307	1833	RJ		23	4	Correio Official: In Medio Posita Virtus (RJ), November 13, ed. 115, 1833. "Correspondencia".
308	1833	RJ		23	1	Correio Official: In Medio Posita Virtus (RJ), November 22, ed. 123, 1833. "Ministerio do Imperio".
309	1833	TO		23	3	Correio Official: In Medio Posita Virtus (RJ), November 30, ed. 130, 1833. "Indice dos correios officiaes do mez de Novembro de 1833".
310	1833	BA MG RJ		23	4	Correio Official: In Medio Posita Virtus (RJ), January 3, ed. 2, 1834. "Noticias Diversas".
311	1833		55	23	2	Correio Official: In Medio Posita Virtus (RJ), January 22, ed. 16, 1834. "Ministerio da Fazenda".
312	1833		117	23 30	1	Correio Official: In Medio Posita Virtus (RJ), March 14, ed. 60, 1834.
313	1833		55 306	23 30	2	Correio Official: In Medio Posita Virtus (RJ), April 14, ed. 82, 1834.
314	1833	MG		23 30	3	Correio Official: In Medio Posita Virtus (RJ), May 30, ed. 119, 1834. "Estacoes Administrativas, e Fiscaes".
315	1833	BA PE		23 30	2	Correio Official: In Medio Posita Virtus (RJ), September 19, ed. 67 (tomo 3), 1834. "Ministerio dos Estrangeiros".
316	1825	CE		23 29	3	Correio Official: In Medio Posita Virtus (RJ), April 30, ed. 96, 1836. "Noticias Provincias".
317	1839		258	12	1	Correio Official: In Medio Posita Virtus (RJ), April 22, ed. 90, 1839.

318	1839		199	12	1		Correio Official: In Medio Posita Virtus (RJ), May 27, ed. 117, 1839.
319	1876		33	12	2		Correio Official de Goyaz (GO), February 5, ed. 9, 1876.
320	1833		204	23	4		Correio Official de Minas (MG), August 8, ed. 270, 1859.
321	1891 1892		156	12	1	4	Correio Paraense: Diario Noticioso, Commercial e Litterario (PA), January 26, ed. 220, 1893.
322	1859	SP		7	4		Correio Paulistano (SP), February 13, ed. 866, 1859.
323	1863	AL		8	2		Correio Paulistano (SP), July 5, ed. 2142, 1863.
324	1863		41	23	2		Correio Paulistano (SP), December 18, ed. 2279, 1863.
325	1863		69	23	2		Correio Paulistano (SP), December 19, ed. 2280, 1863.
326	1865	SE		23	2		Correio Paulistano (SP), February 5, ed. 2611, 1865. "Notícias das Províncias: Sergipe".
327	1865		137	23	2		Correio Paulistano (SP), February 18, ed. 2622, 1865. "Private letter from Pirassununga on February 9, 1865".
328	1865		12	23	2		Correio Paulistano (SP), February 28, ed. 2630, 1865. "Private letter from Atibaia on February 20, 1865".
329	1865		98	23	3		Correio Paulistano (SP), March 2, ed. 2632, 1865. "Private letter from Limeira on February 22, 1865".
330	1865	SP		23	1		Correio Paulistano (SP), April 9, ed. 2664, 1865. "Folhetim".
331	1865	RN		23	3		Correio Paulistano (SP), April 21, ed. 2672, 1865. "Noticias das Provincias: Rio Grande do Norte".
332	1865		26	23	2		Correio Paulistano (SP), August 26, ed. 2775, 1865. "Private letter from Botucatu on August 13, 1865".
333	1865		5	23	2		Correio Paulistano (SP), September 15, ed. 2790, 1865. "Private letter from Amparo on September 9, 1865".
334	1865	SP		23	2		Correio Paulistano (SP), September 24, ed. 2798, 1865. "Temporal".
335	1865		268	23	3		Correio Paulistano (SP), September 28, ed. 2801, 1865. "Private letter from Santo Antonio da Caixoeira on September 22, 1865".
336	1865		26	23	2		Correio Paulistano (SP), October 15, ed. 2816, 1865. "Private letter from Botucatu on October 3, 1865".
337	1865		28	23	2		Correio Paulistano (SP), November 26, ed. 2851, 1865. "Noticiário: Água".

338	1865	SP		23	2	Correio Paulistano (SP), December 1st, ed. 2855, 1865. "Noticiário: Efeitos do calor".
339	1865		111	23	3	Correio Paulistano (SP), December 7, ed 2860, 1865. "Private letter from Mogy das Cruzes on December 4, 1865".
340	1865		81	23	2	Correio Paulistano (SP), December 12, ed 2863, 1865. "Private letter Itapetininga on December 2, 1865".
341	1865		143	23	2	Correio Paulistano (SP), December 21, ed 2871, 1865. "Private letter from Porto Feliz on December 10, 1865".
342	1865	CE		23	2	Correio Paulistano (SP), January 14, ed 2889, 1866. "Ceara on December 26, 1865".
343	1865		270	23	2	Correio Paulistano (SP), April 24, ed. 2976, 1866. "News from Santos".
344	1876		296	12	2	Correio Paulistano (SP), February 26, ed. 5814, 1876.
345	1876		314	12	1	Correio Paulistano (SP), May 14, ed. 5873, 1876.
346	1877		197	12	2	Correio Paulistano (SP), April 5, ed. 6125, 1877.
347	1891		327	6	1	Correio Paulistano (SP): Orgam Republicano, July 5, ed. 10444, 1891.
348	1891		329	6	2	Correio Paulistano (SP): Orgam Republicano, July 10, ed. 10448, 1891.
349	1891	BA		23	2	Correio Paulistano (SP): Orgam Republicano, October 6, ed. 10519, 1891.
350	1891	BA		23	2	Correio Paulistano (SP): Orgam Republicano, October 31, ed. 10540, 1891.
351	1892		278	23	2	Correio Paulistano (SP), January 10, ed. 10590, 1892.
352	1892		41	12	1	Correio Paulistano (SP), January 29, ed. 10605, 1892.
353	1892	SP		12	2	Correio Paulistano (SP), March 3, ed. 10631, 1892. "Inundacao"
354	1892		281	12	1	Correio Paulistano (SP), March 22, ed. 10647, 1892. "Grande Enchente"
355	1892		250	12	1	Correio Paulistano (SP), March 23, ed. 10648, 1892. "A Enchente no Rio Tiete"
356	1897		127	23	2	Correio Paulistano (SP), April 14, ed. 12163, 1897.
357	1897		151	23	1	Correio Paulistano (SP), May 12, ed. 12186, 1897.
358	1897		278	23	2	Correio Paulistano (SP), October 29, ed. 12343, 1897.
359	1897		261	23	2	Correio Paulistano (SP), November 7, ed. 12351, 1897.
360	1891	BA		23	1	Correio Portuguez, May 20, ed. 387, 1891.

361	1850	BA		8	4	Correio Sergipense: Folha Official, Politica e Literaria (SE), May 25, ed. 39, 1850.
362	1859		237	7	3	Correio Sergipense: Folha Official, Politica e Literaria (SE), June 15, ed. 39, 1859.
363	1859		202	12	4	Correio Sergipense: Folha Official, Politica e Literaria (SE), June 25, ed. 41, 1859.
364	1891	BA		23	1	Cruzeiro do Norte (AL), June 21, ed. 63, 1891.
365	1892	AL		7	1	Cruzeiro do Norte (AL), July 3, ed. 68, 1892.
366	1891	SE		8		
366	1891	SE		23	2	Democracia: Orgão de Orientação Republicana (RJ), April 13, ed. 85, 1891.
367	1891	BA		23	2	Democracia: Orgão de Orientação Republicana (RJ), April 16, ed. 88, 1891.
368	1859		157	12	3	Dezenove de Dezembro (PR), July 13, ed. 133, 1859.
369	1865		194	23	2	Dezenove de Dezembro (PR), June 26, ed. 599, 1865. "Exploração de rios: Ivahy".
370	1865		194	23	2	Dezenove de Dezembro (PR), October 4, ed. 628, 1865. "Exploração do rio Ivahy".
371	1865		194	23	2	Dezenove de Dezembro (PR), December 6, ed. 645, 1865. "Descrição da viagem para a colônia Thereza e no rio Ivahy".
372	1875	CE		23	2	2 Dezenove de Dezembro (PR), December 25, ed. 1668, 1875.
373	1876	RJ		23	1	Diario de Belém: Folha Politica, Noticiosa e Commercial (PA), February 4, ed. 27, 1876.
374	1876	RJ		23	1	Diario de Belém: Folha Politica, Noticiosa e Commercial (PA), February 8, ed. 30, 1876.
375	1876	RJ	219	23	1	Diario de Belém: Folha Politica, Noticiosa e Commercial (PA), February 16, ed. 37, 1876.
376	1876		212	23	1	Diario de Belém: Folha Politica, Noticiosa e Commercial (PA), February 16, ed. 37, 1876.
376	1876		324	23	1	Diario de Belém: Folha Politica, Noticiosa e Commercial (PA), September 26, ed. 216, 1876.
377	1877	PR		23	1	Diario de Belém: Folha Politica, Noticiosa e Commercial (PA), February 20, ed. 39, 1877.
377	1877	RS		32		
378	1877		319	23	1	Diario de Belém: Folha Politica, Noticiosa e Commercial (PA), March 6, ed. 51, 1877.
379	1877		333	23	1	Diario de Belém: Folha Politica, Noticiosa e Commercial (PA), April 14, ed. 83, 1877.
380	1877	PA		23	1	2 Diario de Belém: Folha Politica, Noticiosa e Commercial (PA), May 27, ed. 119, 1877.
381	1891	SE		23	1	Diario de Manaos: Propriedade de uma Associação (AM), May 18, ed. 311, 1891.
382	1891		331	12	1	Diario de Manaos: Propriedade de uma Associação (AM), August 6, ed. 28, 1891.
383	1891	PI		23	2	Diario de Manaos: Propriedade de uma Associação (AM), September 15, ed. 59, 1891.

384	1891	BA SE RN	23	1		Diario de Manaos: Propriedade de uma Associação (AM), October 15, ed. 85, 1891.	
385	1891	BA	23	2		Diario de Manaos: Propriedade de uma Associação (AM), November 6, ed. 102, 1891.	
386	1891	PE	23	2		Diario de Manaos: Propriedade de uma Associação (AM), November 7, ed. 103, 1891.	
387	1891	PI	23	1		Diario de Manaos: Propriedade de uma Associação (AM), November 29, ed. 122, 1891.	
388	1892		287	23	3	Diario de Manaos: Propriedade de uma Associação (AM), February 14, ed. 181, 1892.	
389	1892		213	12	1	1	Diario de Manaos: Propriedade de uma Associação (AM), May 21, ed. 259, 1892.
390	1892		213	12	1	3	Diario de Manaos: Propriedade de uma Associação (AM), June 2, ed. 268, 1892. “Inundada”
391	1892		213	12	1	5	Diario de Manaos: Propriedade de uma Associação (AM), August 27, ed. 46, 1892. “As Pontes”
392	1892		213	12	1		Diario de Manaos: Propriedade de uma Associação (AM), December 16, ed. 59, 1892. “Servicos Municipaes”
393	1875		78	23	4		Diario de Minas (MG), October 25, ed. 530, 1875.
394	1891	CE		23	2		Diario de Noticias (PA), April 12, ed. 79, 1891.
395	1891	BA		23	3		Diario de Noticias (PA), May 7, ed. 99, 1891.
396	1891	SE		23	2		Diario de Noticias (PA), May 22, ed. 112, 1891.
397	1891		156	6	3	3	Diario de Noticias (PA), June 21, ed. 135, 1891.
398	1891	PB		23	3		Diario de Noticias (PA), July 23, ed. 158, 1891.
399	1891	CE		23	2		Diario de Noticias (PA), August 11, ed. 174, 1891.
400	1891		194	12	2		Diario de Noticias (PA), August 20, ed. 181, 1891.
401	1891	BA		23	2		Diario de Noticias (PA), November 14, ed. 146, 1891.
402	1891		234	12	3		Diario de Noticias (PA), July 10, ed. 149, 1891.
403	1891	BA		23	2		Diario de Noticias (PA), December 30, ed. 280, 1891.
404	1892		281	12	2		Diario de Notícias (PA), April 12, ed. 82, 1892.
405	1897	BA		12	2		Diario de Noticias (PA), July 7, ed. 146, 1897.
406	1891		224	6	1		Diario de Noticias (RJ), January 8, ed. 2019, 1891.
407	1891	BA		23	1		Diario de Noticias (RJ), January 28, ed. 2038, 1891.
408	1891		69	12	1		Diario de Noticias (RJ), June 27, ed. 2181, 1891.
409	1891		331	12	1		Diario de Noticias (RJ), July 27, ed. 2210, 1891.

410	1891	RN SE		23	2		Diario de Noticias (RJ), November 15, ed. 2318, 1891.
411	1892		333	23	1		Diario de Noticias (RJ), October 1, ed. 2637, 1892.
412	1892		308	23	1		Diario de Noticias (RJ), October 5, ed. 2641, 1892.
413	1892		13	23	2		Diario de Noticias (RJ), December 15, ed. 2712, 1892.
414	1829		139	12	4	1	Diario de Pernambuco (PE), March 21, ed. 64, 1829.
415	1833		219	12	1		Diario de Pernambuco (PE), March 28, ed. 71, 1833.
416	1833		219	12	2		Diario de Pernambuco (PE), April 4, ed. 77, 1833.
417	1833	BA MG RJ		23 30	2		Diario de Pernambuco (PE), February 21, ed. 326, 1834.
418	1833	BA PE RJ		23 31	2		Diario de Pernambuco (PE), September 17, ed. 488, 1834. "Importacoes".
419	1839	PE		23	7		Diario de Pernambuco (PE), January 3, ed. 2, 1839. "Correspondencia".
420	1839		258	12	1		Diario de Pernambuco (PE), July 12, ed. 149, 1839.
421	1825	CE		23 29	2		Diario de Pernambuco (PE), February 21, ed. 42, 1846. "Comunicado: O estado faminto do Ceara".
422	1853		147	23	1		Diario de Pernambuco (PE), January 31, ed. 25, 1853. "Retrospecto Semanal".
423	1853	MA	117	23	1		Diario de Pernambuco (PE), February 16, ed. 38, 1853. "Interior: Maranhão, Natal".
424	1853	CE MA RN		23	1		Diario de Pernambuco (PE), February 21, ed. 42, 1853. "Retrospecto Semanal".
425	1853		117	23	2		Diario de Pernambuco (PE), February 25, ed. 46, 1853. "Interior: Correspondência do Diario de Pernambuco (PE). Natal on February 15, 1853".
426	1853	PE		23	2		Diario de Pernambuco (PE), February 26, ed. 47, 1853.
427	1853	PE		23	3		Diario de Pernambuco (PE), March 24, ed. 69, 1853. "A Secca".
428	1853		147	23	3		Diario de Pernambuco (PE), April 9, ed. 75, 1853. "Correspondência ao Publico".
429	1853		147	23	2		Diario de Pernambuco (PE), April 6, ed. 77, 1853. "Comunicado".
430	1853	PE		23	1		Diario de Pernambuco (PE), April 15, ed. 84, 1853.

431	1853	PE		23	2	Diario de Pernambuco (PE), April 18, ed. 86, 1853.
432	1853	CE PB PE RN		23	2	Diario de Pernambuco (PE), April 25, ed. 93, 1853. "Correspondências ao Publico".
433	1853	PE		23	1	Diario de Pernambuco (PE), April 27, ed. 94, 1853.
434	1853		287	23	2	Diario de Pernambuco (PE), May 4, ed. 99, 1853.
435	1853	PB		23	1	Diario de Pernambuco (PE), May 7, ed. 102, 1853. "Parahiba on May 2, 1853".
436	1853		147	23	2	Diario de Pernambuco (PE), May 14, ed. 108, 1853. "Comunicado".
437	1853		239	23	1	Diario de Pernambuco (PE), May 19, ed. 110, 1853. "Exploração do Rio S. Francisco".
438	1853	CE		23	2	Diario de Pernambuco (PE), June 7, ed. 125, 1853. "O contrato das carnes verdes".
439	1853	CE PB RN		23	2	Diario de Pernambuco (PE), June 20, ed. 136, 1853. "O contrato das carnes verdes".
440	1825 1853	PE		23	2	Diario de Pernambuco (PE), June 23, ed. 139, 1853. "O contrato das carnes verdes".
441	1853	PE		23	2	Diario de Pernambuco (PE), July 18, ed. 159, 1853. "O contrato das carnes verdes".
442	1853		113	23	2	Diario de Pernambuco (PE), November 4, ed. 249, 1853.
443	1859		156	12	2	5 Diario de Pernambuco (PE), February 17, ed. 39, 1860.
444	1863	PE		12	2	Diario de Pernambuco (PE), January 22, ed. 17, 1863.
445	1863		196 225	12	2	Diario de Pernambuco (PE), February 14, ed. 36, 1863.
446	1863		225	12	1	Diario de Pernambuco (PE), February 16, ed. 37, 1863.
447	1863		164	23	1	Diario de Pernambuco (PE), May 12, ed. 108, 1863.
448	1863		185	12	8	Diario de Pernambuco (PE), July 30, ed. 172, 1863. "Viagem de exploração aos rios Iguatemy, Escopil e Ivinheima. Relatório apresentado ao ministro da marinha"
449	1863		39 319	23	4	Diario de Pernambuco (PE), December 15, ed. 287, 1863.
450	1863		277	23	2	Diario de Pernambuco (PE), December 30, ed. 299, 1863.
451	1863		324	23	1	Diario de Pernambuco (PE), December 31, ed. 300, 1863.

452	1865		156	12	1	6	Diario de Pernambuco (PE), January 24, ed. 19, 1865. "Amazonas. Manaus, 24 de Dezembro de 1864"
453	1865	PE		23	1		Diario de Pernambuco (PE), February 6, ed. 29, 1865. "Revista Diaria"
454	1865		213	12	1	4	Diario de Pernambuco (PE), January 24, ed. 45, 1865.
455	1865		239	12	1		Diario de Pernambuco (PE), April 24, ed. 93, 1865.
456	1865		170	12	2		Diario de Pernambuco (PE), May 1, ed. 99, 1865.
457	1865		239	12	3		Diario de Pernambuco (PE), May 8, ed. 105, 1865.
458	1865		328	12	1		Diario de Pernambuco (PE), August 4, ed. 177, 1865.
459	1865		328	12	1		Diario de Pernambuco (PE), August 5, ed. 178, 1865.
460	1865		328	12	8		Diario de Pernambuco (PE), September 11, ed. 207, 1865.
461	1865		86	23	8		Diario de Pernambuco (PE), September 15, ed. 210, 1865.
462	1865		142	12	8		Diario de Pernambuco (PE), October 5, ed. 228, 1865.
463	1865	MG		23	1		Diario de Pernambuco (PE), October 16, ed. 237, 1865.
464	1865		10	12	8		Diario de Pernambuco (PE), November 18, ed. 289, 1865.
465	1875	RS		23	1		Diario de Pernambuco (PE), February 10, ed. 32, 1875.
466	1875		266	23	1		Diario de Pernambuco (PE), March 8, ed. 54, 1875.
467	1875	PB	154	6	1		Diario de Pernambuco (PE), April 17, ed. 87, 1875.
468	1875		241	6	2		Diario de Pernambuco (PE), April 27, ed. 95, 1875.
469	1875		72	6	1		Diario de Pernambuco (PE), April 28, ed. 96, 1875.
			154		2		
470	1875		48	6	1		Diario de Pernambuco (PE), May 4, ed. 101, 1875.
471	1875	RS		23	2		Diario de Pernambuco (PE), May 11, ed. 106, 1875.
472	1875		50	6	1		Diario de Pernambuco (PE), May 12, ed. 107, 1875.
			49				
473	1875		190	6	3		Diario de Pernambuco (PE), May 28, ed. 120, 1875.
474	1875		162	6	1		Diario de Pernambuco (PE), August 14, ed. 185, 1875.

475	1875		320	23	2	Diario de Pernambuco (PE), October 5, ed. 228, 1875.
476	1875		33	6	2	Diario de Pernambuco (PE), November 18, ed. 265, 1875.
477	1875	CE		23	2	Diario de Pernambuco (PE), December 6, ed. 280, 1875.
478	1876		88 97 219 302 303	23	2	Diario de Pernambuco (PE), January 21, ed. 16, 1876. "Noticias do Sul do Imperio".
479	1876		16 219 276	23	3	Diario de Pernambuco (PE), January 24, ed. 18, 1876. "Noticias do Sul do Imperio".
480	1876		38	23	2	Diario de Pernambuco (PE), January 28, ed. 22, 1876. "Noticias do Sul do Imperio".
481	1876	MG		23	1	Diario de Pernambuco (PE), January 31, ed. 24, 1876. "Noticias do Sul do Imperio".
482	1876		101	23	2	Diario de Pernambuco (PE), February 4, ed. 27, 1876. "Revista Diaria".
483	1876	PI		23	2	Diario de Pernambuco (PE), February 5, ed. 28, 1876. "Noticias do Norte do Imperio".
484	1876		219	23	1	Diario de Pernambuco (PE), February 9, ed. 31, 1876. "Noticias do Sul do Imperio".
485	1876	PB		23	1	Diario de Pernambuco (PE), February 14, ed. 35, 1876. "Noticias do Norte do Imperio".
486	1876	BA		23	1	Diario de Pernambuco (PE), February 18, ed. 39, 1876. "Noticias do Sul do Imperio".
487	1876		96	23	1	Diario de Pernambuco (PE), February 28, ed. 47, 1876. "Noticias do Sul do Imperio".
488	1876		180	12	8	Diario de Pernambuco (PE), March 6, ed. 53, 1876.
489	1876		36	23	2	Diario de Pernambuco (PE), March 9, ed. 56, 1876. "Noticias do Sul do Imperio".
490	1876		42	23	1	Diario de Pernambuco (PE), March 11, ed. 58, 1876. "Noticias do Sul do Imperio".
491	1876		171	23	2	Diario de Pernambuco (PE), April 30, ed. 98, 1876. "Bahia".
492	1876	PE		23	2	Diario de Pernambuco (PE), June 9, ed. 131, 1876. "Revista Diaria".
493	1876		45	23	2	Diario de Pernambuco (PE), June 27, ed. 144, 1876. "Noticias do Sul do Imperio".
494	1876		315	23	2	Diario de Pernambuco (PE), September 10, ed. 206, 1876.
495	1876		82	23	1	Diario de Pernambuco (PE), December 27, ed. 295, 1876. "Noticias do Sul do Imperio".

496	1877		57	23	3	Diario de Pernambuco (PE), January 3, ed. 2, 1877. "Revista Diaria"
497	1877	RS		23	1	Diario de Pernambuco (PE), January 22, ed. 17, 1877. "Noticias do Sul do Imperio"
498	1877		319	23	3	Diario de Pernambuco (PE), January 20, ed. 23, 1877.
499	1877	PR	131	23	1	Diario de Pernambuco (PE), January 30, ed. 24, 1877 (newapaper).
500	1877	PR RS		23	2	Diario de Pernambuco (PE), February 9, ed. 32, 1877. "Noticias do Sul do Imperio"
501	1877		147	23	8	Diario de Pernambuco (PE), February 10, ed. 33, 1877. "Agricultura"
502	1877		266	23	1	Diario de Pernambuco (PE), February 11, ed. 34, 1877. "Noticias do Sul do Imperio"
503	1877		324	23	1	Diario de Pernambuco (PE), February 15, ed. 37, 1877.
504	1877		131	23	1	Diario de Pernambuco (PE), February 24, ed. 42, 1877. "Noticias do Sul do Imperio"
505	1877	PB RS		23	1	Diario de Pernambuco (PE), February 27, ed. 47, 1877. "Noticias do Sul do Imperio"
506	1877	RS		23	2	Diario de Pernambuco (PE), March 2, ed. 50, 1877 (nespaper). "Noticias do Sul do Imperio"
507	1877	CE		23	1	Diario de Pernambuco (PE), March 7, ed. 54, 1877. "Noticias do Norte do Imperio"
508	1877	RS		23	1	Diario de Pernambuco (PE), March 10, ed. 57, 1877. "Noticias do Sul do Imperio"
509	1877	CE		23	1	Diario de Pernambuco (PE), March 23, ed. 69, 1877. "Noticias do Norte do Imperio"
510	1877	CE		23	1	Diario de Pernambuco (PE), March 24, ed. 70, 1877. "Noticias do Norte do Imperio"
511	1877	RS		23	1	Diario de Pernambuco (PE), March 27, ed. 72, 1877. "Noticias do Sul do Imperio"
512	1877	RS		23	2	Diario de Pernambuco (PE), April 1, ed. 74, 1877. "Noticias do Sul do Imperio"
513	1877		123	23	2	Diario de Pernambuco (PE), April 3, ed. 75, 1877. "Publicacoes a pedido"
514	1877	CE		23	2	Diario de Pernambuco (PE), April 4, ed. 76, 1877. "Ceara"
515	1877	CE PB	197	12	2	Diario de Pernambuco (PE), April 15, ed. 86, 1877. "Ceara" "Parahyba" Both wet and dry Both wet and dry
516	1877	RS		23	1	Diario de Pernambuco (PE), April 21, ed. 91, 1877. "Noticias do Sul do Imperio"
517	1877	CE		23	1	Diario de Pernambuco (PE), April 23, ed. 92, 1877. "Noticias do Norte do Império"

518	1877	CE		23	2	Diario de Pernambuco (PE), April 25, ed. 94, 1877. "Noticias do Norte do Imperio"
519	1877	PE		23	2	Diario de Pernambuco (PE), April 26, ed. 95, 1877. "Revista Diaria"
520	1877	PE		23	2	Diario de Pernambuco (PE), April 30, ed. 98, 1877. "Revista Diaria"
521	1877	CE	117	23	1	Diario de Pernambuco (PE), May 1, ed. 99, 1877. "Revista Diaria"
		PB				
522	1877	PE		23	3	Diario de Pernambuco (PE), May 2, ed. 100, 1877. "Matriz de S. Jose do Recife"
523	1877		271	23	1	Diario de Pernambuco (PE), May 4, ed. 102, 1877 (nespaper). "Noticias do Norte do Imperio"
524	1877	CE		23	1	Diario de Pernambuco (PE), May 7, ed. 104, 1877.
		PB			2	
		PE				
		RN				
		RS				
525	1877	CE		23	1	Diario de Pernambuco (PE), May 14, ed. 109, 1877. "Noticias do Norte do Imperio"
		PB				
		RN				
526	1877	CE		23	2	Diario de Pernambuco (PE), May 15, ed. 110, 1877. "Revista Diaria"
		PB				
		RN				
527	1877	PE		23	2	Diario de Pernambuco (PE), May 17, ed. 112, 1877. "Revista Diaria"
528	1877	CE		23	2	Diario de Pernambuco (PE), May 22, ed. 116, 1877. "Revista Diaria"
529	1877	PE		23	1	Diario de Pernambuco (PE), May 23, ed. 117, 1877. "Revista Diaria"
530	1877		57	23	3	Diario de Pernambuco (PE), May 24, ed. 118, 1877. "Revista Diaria"
531	1877	PE		23	1	Diario de Pernambuco (PE), May 26, ed. 120, 1877. "Parte Oficial"
532	1877	CE		23	2	Diario de Pernambuco (PE), May 28, ed. 121, 1877. "Noticias do Norte do Imperio"
		PB				
		RN				
533	1877	RS		23	1	Diario de Pernambuco (PE), May 30, ed. 123, 1877. "Noticias do Sul do Imperio"
534	1877	PE		23	2	Diario de Pernambuco (PE), June 2, ed. 125, 1877. "Revista Diaria"
535	1877	PE		23	1	Diario de Pernambuco (PE), June 4, ed. 126, 1877. "Revista Diaria"
		RN				
536	1877		75	23	3	Diario de Pernambuco (PE), June 6, ed. 128, 1877. "Victimas da secca em Ingazeira"
537	1877	CE		23	1	Diario de Pernambuco (PE), June 11, ed. 132, 1877. "Comissao Central de Socorros"

538	1877	CE PE		23	1	Diario de Pernambuco (PE), June 14, ed. 135, 1877. "Noticias do Norte do Imperio"
539	1877		57	23	2	Diario de Pernambuco (PE), June 23, ed. 143, 1877. "Revista Diaria"
540	1877	CE PB RN		23	2	Diario de Pernambuco (PE), June 25, ed. 144, 1877. "Noticias do Norte do Imperio"
541	1877	PB		23	2	Diario de Pernambuco (PE), June 28, ed. 147, 1877. "Noticias do Sul do Imperio"
542	1877	CE RN		23	5	Diario de Pernambuco (PE), June 30, ed. 148, 1877. "Revista Diaria"
543	1877	CE PB RN		23	2	Diario de Pernambuco (PE), July 2, ed. 149, 1877. "Noticias do Norte do Imperio"
544	1877	BA		23	1	Diario de Pernambuco (PE), July 6, ed. 153, 1877. "Telegrammas"
545	1877	AL		23	2	Diario de Pernambuco (PE), July 10, ed. 156, 1877. "Noticias do Sul do Imperio"
546	1877	PE		23	1	Diario de Pernambuco (PE), July 14, ed. 160, 1877.
547	1877	CE PB RN		23	3	Diario de Pernambuco (PE), July 16, ed. 161, 1877. "Noticias do Norte do Imperio"
548	1877	CE		23	1	Diario de Pernambuco (PE), July 20, ed. 165, 1877. "Telegrammas"
549	1877	CE		23	8	Diario de Pernambuco (PE), July 22, ed. 167, 1877.
550	1877	CE MG PB PE PI RN		23	2	Diario de Pernambuco (PE), July 27, ed. 171, 1877. "Noticias do Norte do Imperio" "Noticias do Sul do Imperio"
551	1877	CE RN		23	1	Diario de Pernambuco (PE), August 2, ed. 176, 1877. "Interior"
552	1877	CE PB RN		23	3	Diario de Pernambuco (PE), August 24, ed. 194, 1877. "Revista Diaria"
553	1877		61	23	2	Diario de Pernambuco (PE), September 11, ed. 208, 1877. "Revista Diaria"
554	1877	CE PB PE PI		23	2	Diario de Pernambuco (PE), September 14, ed. 211, 1877. "Noticias do Norte do Imperio"
555	1877	CE		23	2	Diario de Pernambuco (PE), September 21, ed. 217, 1877. "Revista Diaria"

556	1877	CE PE PI		23	3		Diario de Pernambuco (PE), September 27, ed. 222, 1877. "Noticias do Norte do Imperio" "Revista Diaria"
557	1877	PE		23	3		Diario de Pernambuco (PE), October 10, ed. 233, 1877. "Revista Diaria"
558	1877		25	23	2		Diario de Pernambuco (PE), October 15, ed. 237, 1877. "Publicacoes a Pedido"
559	1877	CE PE	301	23	1		Diario de Pernambuco (PE), October 17, ed. 239, 1877. "Noticias do Norte do Imperio"
560	1877	AL PE		23	2		Diario de Pernambuco (PE), October 18, ed. 240, 1877.
561	1877	CE PB PE RN		23	3		Diario de Pernambuco (PE), October 25, ed. 246, 1877. "Revista Diaria"
562	1877	PE SE		23	2		Diario de Pernambuco (PE), November 7, ed. 256, 1877. "Noticias de Sergipe e Alagoas" "Revista Diaria"
563	1877	AL		23	3		Diario de Pernambuco (PE), November 13, ed. 261, 1877. "Publicacoes a Pedido"
564	1877	AL PB PE		23	2		Diario de Pernambuco (PE), November 15, ed. 263, 1877. "Noticias do Norte do Imperio"
565	1877	CE PB PE RN		23	2		Diario de Pernambuco (PE), November 21, ed. 268, 1877. "Revista Diaria"
566	1877	CE PB PE PI RN	157	23	1	2 5	Diario de Pernambuco (PE), December 7, ed. 282, 1877. "Noticias do Norte do Imperio"
567	1877		178	12	3		Diario de Pernambuco (PE), December 10, ed. 283, 1877.
568	1877	CE	300 183	12 23	2 3		Diario de Pernambuco (PE), December 16, ed. 289, 1877. "Noticias do Sul do Imperio" Both wet and dry Both wet and dry
569	1877	PB PE RN		23	2		Diario de Pernambuco (PE), December 19, ed. 291, 1877.
570	1877		183	12	3		Diario de Pernambuco (PE), December 21, ed. 293, 1877.
571	1877	CE ES PB PE		23	4		Diario de Pernambuco (PE), December 31, ed. 300, 1877.

572	1791	CE	23	3	Diario de Pernambuco (PE), April 9, ed. 79,	
	1825	PB	26		1885. "Ceara e Rio Grande do Norte".	
		RN				
573	1791	CE	23	1	Diario de Pernambuco (PE), March 25, ed. 69,	
		PE	27		1890. "Correspondencias".	
		RN				
574	1891		291	23	2	Diario de Pernambuco (PE), April 1, ed. 71,
						1891.
575	1891		44	23	2	Diario de Pernambuco (PE), April 16, ed. 84,
						1891.
576	1891		61	23	1	Diario de Pernambuco (PE), April 21, ed. 88,
			307		2	1891.
577	1891	SE		23	2	Diario de Pernambuco (PE), May 9, ed. 103,
						1891.
578	1891		2	23	2	Diario de Pernambuco (PE), May 15, ed. 108,
						1891.
579	1891		131	12	2	Diario de Pernambuco (PE), June 2, ed. 122,
						1891.
580	1891	RS		23	2	Diario de Pernambuco (PE), July 31, ed. 171,
						1891.
581	1891	PE		23	2	Diario de Pernambuco (PE), August 4, ed. 174,
						1891.
582	1891		63	23	3	Diario de Pernambuco (PE), August 18, ed. 185,
						1891.
583	1891		159	23	3	Diario de Pernambuco (PE), August 20, ed. 187,
						1891.
584	1891		2	23	3	Diario de Pernambuco (PE), September 2, ed.
						198, 1891.
585	1891		19	23	2	Diario de Pernambuco (PE), September 17, ed.
						210, 1891.
586	1891	PE		23	2	Diario de Pernambuco (PE), October 15, ed. 234,
						1891.
587	1891		57	23	2	Diario de Pernambuco (PE), October 23, ed. 241,
						1891.
588	1891		63	23	3	Diario de Pernambuco (PE), October 28, ed. 245,
						1891.
589	1891		124	23	3	Diario de Pernambuco (PE), November 3, ed.
						250, 1891.
590	1891	PB		23	2	Diario de Pernambuco (PE), December 25, ed.
		RN				294, 1891.
591	1892		287	23	3	Diario de Pernambuco (PE), January 19, ed. 14,
						1892.
592	1892		275	23	3	Diario de Pernambuco (PE), February 4, ed. 27,
						1892.
593	1892		285	23	3	Diario de Pernambuco (PE), February 17, ed. 38,
						1892.

594	1892	SE	284	23	2	Diario de Pernambuco (PE), February 19, ed. 40, 1892.
595	1892		285	23	1	Diario de Pernambuco (PE), February 21, ed. 42, 1892.
596	1892		218	23	2	Diario de Pernambuco (PE), March 10, ed. 56, 1892.
597	1892		311	7 8	1	Diario de Pernambuco (PE), March 11, ed. 57, 1892.
598	1892		330	23	2	Diario de Pernambuco (PE), March 22, ed. 66, 1892.
599	1892		312	7 8	1	Diario de Pernambuco (PE), March 31, ed. 73, 1892.
600	1892	CE		23	3	Diario de Pernambuco (PE), April 12, ed. 83, 1892.
601	1892		229	12	1	Diario de Pernambuco (PE), June 7, ed. 127, 1892.
602	1892		308	23	1	Diario de Pernambuco (PE), October 15, ed. 234, 1892.
603	1892		51	23	1	Diario de Pernambuco (PE), November 6, ed. 252, 1892.
604	1892		310	23	1	Diario de Pernambuco (PE), November 16, ed. 260, 1892.
605	1897	RS		12	2	Diario de Pernambuco (PE), January 3, ed. 2, 1897.
606	1897	CE		7 8	2	Diario de Pernambuco (PE), January 24, ed. 19, 1897.
607	1897		331	23	2	Diario de Pernambuco (PE), February 13, ed. 35, 1897.
608	1897	CE		7 8	2	Diario de Pernambuco (PE), May 7, ed. 102, 1897.
609	1892 1897		233	12	3	1 Diario de Pernambuco (PE), May 13, ed. 107, 1897.
610	1897		62	12	3	Diario de Pernambuco (PE), June 24, ed. 140, 1897.
611	1897		162	12	2	Diario de Pernambuco (PE), July 2, ed. 145, 1897.
612	1897	PE		12	1	Diario de Pernambuco (PE), July 11, ed. 153, 1897.
613	1897		227	12	2	Diario de Pernambuco (PE), July 29, ed. 167, 1897.
614	1897		17	7 8	3	Diario de Pernambuco (PE), August 4, ed. 172, 1897.
615	1897		254	12	2	Diario de Pernambuco (PE), September 7, ed. 201, 1897.
616	1897		172	7 8	1	Diario de Pernambuco (PE), September 23, ed. 213, 1897.

617	1865		270	23	1	Diario de São Paulo (SP), August 20, ed. 17, 1865. "Private letter from Santos on August 17, 1865".
618	1865	SP		23	2	Diario de São Paulo (SP), September 7, ed. 32, 1865. "Private letter from Porto Feliz on August 23, 1865".
619	1865		290	23	1	Diario de São Paulo (SP), September 13, ed. 35, 1865. "Private letter from Sorocaba on September 5, 1865".
620	1865		81	23	2	Diario de São Paulo (SP), September 19, ed. 40, 1865. "Correspondencias from Itapetininga on September 8, 1865".
621	1865		26	23	2	Diario de São Paulo (SP), September 26, ed. 46, 1865. "Correspondencias ao Diario from Botucatu on September 14, 1865".
622	1865		290	23	1	Diario de São Paulo (SP), September 29, ed. 49, 1865. "Correspondencias ao Diario from Sorocaba on September 25, 1865".
623	1865	SP		23	1	Diario de São Paulo (SP), October 3, ed. 52, 1865. "Correspondencias ao Diario".
624	1865		30	23	2	Diario de São Paulo (SP), November 10, ed. 83, 1865. "Correspondencias from Brotas on October 13, 1865".
625	1865	SP		23	1	Diario de São Paulo (SP), August 28, ed. 314, 1866. "Algodao".
626	1875		282	23	3	Diario de São Paulo (SP), January 30, ed. 2769, 1875.
627	1875		162	6	3	Diario de São Paulo (SP), April 24, ed. 2834, 1875.
628	1875		154	6	2	Diario de São Paulo (SP), May 9, ed. 2841, 1875.
629	1875		314	23	2	Diario de São Paulo (SP), August 20, ed. 2923, 1875.
630	1875	CE	216	23	1	Diario de São Paulo (SP), December 16, ed. 3019, 1875. Both wet and dry Both wet and dry
631	1891	PE		23	2	Diario do Commercio (RJ), July 23, ed. 955, 1891.
632	1891	PE		23	3	Diario do Commercio (RJ), August 27, ed. 989, 1891.
633	1891		63	23	1	Diario do Commercio (RJ), November 7, ed. 1061, 1891.
634	1891	PI	235	12	1	Diario do Commercio (RJ), December 2, ed. 1084, 1891. Both wet and dry Both wet and dry
635	1891	PE		23	2	Diario do Commercio (RJ), December 3, ed. 1085, 1891
636	1892	SP		12	3	Diario do Commercio (RJ), February 7, ed. 60, 1892.

637	1892	SP		12	2	Diario do Commercio (RJ), March 11, ed. 93, 1892.
638	1892		172	12	1	Diario do Commercio (RJ), March 18, ed. 100, 1892.
639	1892		288	23	3	Diario do Commercio (RJ), March 21, ed. 103, 1892.
640	1892		281	7 8	2	Diario do Commercio (RJ), March 23, ed. 105, 1892.
641	1892		156	12	2	Diario do Commercio (RJ), May 27, ed. 168, 1892.
642	1892		213	12	1	Diario do Commercio (RJ), June 15, ed. 186, 1892.
643	1892		156	12	1	Diario do Commercio (RJ), June 25, ed. 196, 1892.
644	1875		304	23	1	Diario do Maranhão (MA), January 30, ed. 447, 1875.
645	1875		282 266	23	1	Diario do Maranhão (MA), March 16, ed. 484, 1875.
646	1875		154	6	2	Diario do Maranhão (MA), April 18, ed. 512, 1875.
647	1875		72	6	2	Diario do Maranhão (MA), April 21, ed. 514, 1875.
648	1875		249	6	2	Diario do Maranhão (MA), April 24, ed. 517, 1875.
649	1875		190	6	3	Diario do Maranhão (MA), May 6, ed. 527, 1875.
650	1875		314	23	2	Diario do Maranhão (MA), September 3, ed. 625, 1875.
651	1875	CE		23	2	Diario do Maranhão (MA), December 4, ed. 701, 1875.
652	1875		192	6	1	Diario do Maranhão (MA), December 16, ed. 710, 1875.
653	1876	RJ		23	2	Diario do Maranhão (MA), January 23, ed. 740, 1876.
654	1876		129 276	23	2	Diario do Maranhão (MA), February 2, ed. 748, 1876.
655	1876		101	23	5	Diario do Maranhão (MA), February 26, ed. 757, 1876.
656	1876		45	23	1	Diario do Maranhão (MA), July 4, ed. 872, 1876.
657	1877		326	12	1	Diario do Maranhão (MA), January 13, ed. 1032, 1877.
658	1877		327	12	5	Diario do Maranhão (MA), April 1, ed. 1096, 1877.
659	1877		178	12	1	Diario do Maranhão (MA), December 18, ed. 1310, 1877.
660	1891	CE	331	12 23	3 2	Diario do Maranhão (MA), August 4, ed. 5372, 1891. Both wet and dry Both wet and dry

661	1891		320 324 333	6	3	Diario do Maranhão (MA), August 8, ed. 5376, 1891.
662	1891	CE		23	3	Diario do Maranhão (MA), August 31, ed. 5395, 1891.
663	1891	PI		23	4	Diario do Maranhão (MA), September 3, ed. 5398, 1891.
664	1891	BA		23	2	Diario do Maranhão (MA), October 10, ed. 5435, 1891.
665	1891	SE		23	2	Diario do Maranhão (MA), November 25, ed. 5467, 1891.
666	1891		189	12	2	Diario do Maranhão (MA), December 1, ed. 5472, 1891.
667	1892		136	23	2	Diario do Maranhão (MA), February 12, ed. 5531, 1892.
668	1892		284	23	2	Diario do Maranhão (MA), March 7, ed. 5550, 1892.
669	1892		245	12	2	Diario do Maranhão (MA), April 29, ed. 5593, 1892.
670	1892		157	12	3	Diario do Maranhão (MA), June 11, ed. 5628, 1892.
671	1825		172	23	1	Diario do Rio de Janeiro (RJ), April 6, ed. 400003, 1825.
672	1833		142	23	2	Diario do Rio de Janeiro (RJ), May 25, ed. 500021, 1833.
673	1833	RJ		23	3	Diario do Rio de Janeiro (RJ), August 20, ed. 800016, 1833. "Notícias Particul."
674	1833		172	23	2	Diario do Rio de Janeiro (RJ), August 24, ed. 800020, 1833. "Editaes".
675	1833		172	23	2	Diario do Rio de Janeiro (RJ), November 18, ed. 1100014, 1833. "Editaes".
676	1839		258	12	1	Diario do Rio de Janeiro (RJ), April 22, ed. 90, 1839.
677	1839		199	23	2	Diario do Rio de Janeiro (RJ), May 28, ed. 119, 1839. "Ministerio do Imperio".
678	1850	SP		14	1	Diario do Rio de Janeiro (RJ), January 12, ed. 8299, 1850.
679	1850		172	22	3	Diario do Rio de Janeiro (RJ), March 6, ed. 8344, 1850.
680	1850		172	22	2	Diario do Rio de Janeiro (RJ), March 22, ed. 8357, 1850.
681	1850		172	23	2	Diario do Rio de Janeiro (RJ), March 26, ed. 8359, 1850.
682	1850	BA		8	3	Diario do Rio de Janeiro (RJ), May 4, ed. 8391, 1850.

683	1853	CE	23	1	Diário do Rio de Janeiro, February 24, ed. 54, 1853.		
684	1853		172	12	2	Diario do Rio de Janeiro (RJ), May 22, ed. 137, 1853.	
685	1853		190	12	2	Diario do Rio de Janeiro (RJ), June 26, ed. 172, 1853.	
686	1853	RN	23	1	Diário do Rio de Janeiro, June 30, ed. 176, 1853.		
687	1853	CE	23	1	Diário do Rio de Janeiro, July 11, ed. 187, 1853.		
688	1853	BA	23	2	Diário do Rio de Janeiro, November 8, ed. 304, 1853. “Interior: Bahia”.		
689	1825	CE	23	2	Diario do Rio de Janeiro (RJ), June 17, ed. 168, 1856. “Ensaio sobre a secca”.		
690	1825	CE	23	2	Diario do Rio de Janeiro (RJ), June 18, ed. 169, 1856. “Será possível no caso da continuação da secca, prevenir a fome”.		
691	1791	CE	23	1	Diario do Rio de Janeiro (RJ), January 4, ed. 4, 1858. “A questão alimentícia”.		
692	1863	RJ	12	1	Diario do Rio de Janeiro (RJ), February 2, ed. 33, 1863.		
693	1863	PI	7	1	Diario do Rio de Janeiro (RJ), May 12, ed. 129, 1863.		
694	1863	CE	7	1	Diario do Rio de Janeiro (RJ), May 25, ed. 142, 1863.		
695	1863		156	12	1	Diario do Rio de Janeiro (RJ), July 14, ed. 191, 1863.	
696	1833		283	23	2	Diario do Rio de Janeiro (RJ), September 27, ed. 264, 1863. “Variedade: Lavras Diamantinas”.	
697	1863		15	23	1	Diario do Rio de Janeiro (RJ), December 21, ed. 351, 1863.	
698	1863	RS	23	1	Diario do Rio de Janeiro (RJ), December 22, ed. 352, 1863.		
699	1863		213	12	1	1	Diario do Rio de Janeiro (RJ), December 27, ed. 356, 1863.
700	1865	RS	23	2	Diario do Rio de Janeiro (RJ), January 27, ed. 23, 1865. “Interior: Rio Grande”.		
701	1825		326	12	1	Diario do Rio de Janeiro (RJ), February 11, ed. 36, 1865.	
702	1865	RN	23	1	Diario do Rio de Janeiro (RJ), April 16, ed. 93, 1865. “Notícias do Norte”.		
703	1865		170	12	1	Diario do Rio de Janeiro (RJ), April 18, ed. 94, 1865.	
704	1865	RS	23	4	Diario do Rio de Janeiro (RJ), May 8, ed. 112, 1865. “Parte commercial: Rio Grande on April 28, 1865”.		
705	1865		239	12	1	Diario do Rio de Janeiro (RJ), May 12, ed. 116, 1865.	

706	1865	CE		23	1	Diario do Rio de Janeiro (RJ), June 28, ed. 155, 1865. "Notícias do Norte".
707	1865	CE		23	1	Diario do Rio de Janeiro (RJ), January 10, ed. 8, 1866. "Ceara on December 26, 1865".
708	1865		24	25	1	5 Diario do Rio de Janeiro (RJ), May 15, ed. 115, 1866. Ycamiaba
709	1875		43	23	1	Diario do Rio de Janeiro (RJ), January 22, ed. 22, 1875.
710	1875	RS		23	1	Diario do Rio de Janeiro (RJ), February 4, ed. 35, 1875.
711	1875	RS		23	3	Diario do Rio de Janeiro (RJ), February 16, ed. 46, 1875.
712	1875	RS		23	1	Diario do Rio de Janeiro (RJ), February 27, ed. 57, 1875.
713	1875		147	6	1	Diario do Rio de Janeiro (RJ), April 20, ed. 108, 1875.
714	1875		267	6	3	Diario do Rio de Janeiro (RJ), May 1, ed. 119, 1875.
715	1875		72 249	6	1	Diario do Rio de Janeiro (RJ), May 7, ed. 125, 1875.
716	1875		48	6	1	Diario do Rio de Janeiro (RJ), May 12, ed. 130, 1875.
717	1875		190	6	1	Diario do Rio de Janeiro (RJ), May 20, ed. 138, 1875.
718	1875		68 85	23	1	Diario do Rio de Janeiro (RJ), June 12, ed. 161, 1875.
719	1875		267	23	1	Diario do Rio de Janeiro (RJ), November 25, ed. 324, 1875.
720	1875		192	6	2	Diario do Rio de Janeiro (RJ), December 11, ed. 340, 1875.
721	1875		42	23	2	Diario do Rio de Janeiro (RJ), December 24, ed. 353, 1875.
722	1876		219	12	2	Diario do Rio de Janeiro (RJ), December 25, ed. 346, 1876.
723	1877		219	12	2	Diario do Rio de Janeiro (RJ), January 4, ed. 3, 1877.
724	1877		212	12	1	Diario do Rio de Janeiro (RJ), January 15, ed. 13, 1877.
725	1877		216 163	12	2	Diario do Rio de Janeiro (RJ), January 25, ed. 23, 1877.
726	1877		42	12	2	Diario do Rio de Janeiro (RJ), February 16, ed. 43, 1877.
727	1833 1877		219	12	2	Diario do Rio de Janeiro (RJ), February 19, ed. 46, 1877.
728	1877		212	12	2	Diario do Rio de Janeiro (RJ), February 23, ed. 50, 1877.

729	1877		327	12	3		Diario do Rio de Janeiro (RJ), March 14, ed. 69, 1877.
730	1877		193	12	3		Diario do Rio de Janeiro (RJ), March 23, ed. 78, 1877.
731	1877		282	12	1		Diario do Rio de Janeiro (RJ), June 21, ed. 166, 1877.
732	1877		328	12	1		Diario do Rio de Janeiro (RJ), August 28, ed. 232, 1877.
733	1833	RJ		23	3		Dom Pedro I (RJ), December 3, ed. 6, 1833. "Artigo".
734	1850		200	12	2		Echo Cuiabano: Throno e Constituição (MT), February 23, ed. 2, 1850.
735	1891	BA		23	1		Estado de Goyaz: Orgam do Partido Republicano Federal (GO), October 31, ed. 22, 1891.
736	1892		284	23	2		Estado de Goyaz: Orgam do Partido Republicano Federal (GO), April 7, ed. 45, 1892.
737	1859		156	12	4		Estrella do Amazonas (AM), November 23, ed. 413, 1859.
738	1859		156	12	3		Estrella do Amazonas (AM), December 10, ed. 417, 1859.
739	1877	RN		22	48	1	** Falla com que o Exm. Sr. Doutor Jose Nicolao Colentino de Carvalho abriu a 2a sessão da 21.a Legislatura da Assembléa Provincial do Rio Grande do Norte em 18 de Outubro de 1877. Pernambuco, 1877. "Secca"
740	1877	PB RN		22	8	1	** Falla com que o Exm. Sr. Doutor Rodrigo Lobato Marcondes Machado, Presidente da Provincia, Abrio a 2ª Sessão da Assembléa Legislativa Provincial do Rio Grande do Norte em 27 de Outubro de 1879. Natal, 1880. "Socorros Publicos".
741	1877	PE		22	52	1	** Falla com que o Exm. Sr. Dr. Adolpho de Barros Cavalcante de Lacerda, Presidente da Provincia, abriu a Sessão da Assembléa Legislativa em 19 de Dezembro de 1878. Recife, 1879. "Socorro As Victimias da Secca"
742	1853		22 23		33	1	** Falla Dirigida A Assembléa Legislativa Provincial do Amazonas, no dia 1.o de Agosto de 1854, em que se abriu a sua 3ª sessão ordinária, pelo Presidente da Provincia, o Conselheiro Herculano Ferreira Penna. Barra do Rio Negro. 1854. "Navegação, Commercio, e Industria."
743	1897		260	23	1		Folha do Norte (PA), January 22, ed. 387, 1897.
744	1897		59	23	2		Folha do Norte (PA), January 28, ed. 393, 1897.
745	1897		134	12	2		Folha do Norte (PA), February 8, ed. 404, 1897.
746	1897	SP		23	2		Folha do Norte (PA), April 10, ed. 465, 1897.

747	1897	CE		12	1	Folha do Norte (PA), April 24, ed. 479, 1897.
748	1897		199	12	1	Folha do Norte (PA), April 26, ed. 481, 1897.
749	1891	BA		23	1	Gazeta da Tarde (RJ), January 30, ed. 28, 1891.
750	1891	BA		23	1	Gazeta da Tarde (RJ), October 9, ed. 279, 1891.
751	1892	RS		23	1	Gazeta da Tarde (RJ), April 23, ed. 113, 1892.
752	1892		308	23	2	Gazeta da Tarde (RJ), August 10, ed. 210, 1892.
753	1875		41	23	1	Gazeta de Campinas (SP), August 25, ed. 584, 1875.
754	1875		41	23	2	Gazeta de Campinas (SP), August 26, ed. 585, 1875.
755	1875		41	23	2	Gazeta de Campinas (SP), October 10, ed. 597, 1875.
756	1875		172	23	3	Gazeta de Noticias (RJ), November 2, ed. 93, 1875.
757	1875		172	23	1	Gazeta de Noticias (RJ), November 29, ed. 120, 1875.
758	1876		266	12	2	Gazeta de Noticias (RJ), January 29, ed. 29, 1876.
759	1876		219	12	1	Gazeta de Noticias (RJ), December 25, ed. 356, 1876.
760	1876		38	12	1	Gazeta de Noticias (RJ), December 31, ed. 361, 1876.
761	1877		219	12	5	Gazeta de Noticias (RJ), January 3, ed. 2, 1877.
762	1877		212	12	1	Gazeta de Noticias (RJ), January 15, ed. 14, 1877.
763	1877		239	12	1	Gazeta de Noticias (RJ), February 15, ed. 44, 1877.
764	1877		212 219	12	2	Gazeta de Noticias (RJ), February 19, ed. 48, 1877.
765	1877		131	12	1	Gazeta de Noticias (RJ), August 1, ed. 211, 1877.
766	1877		198	12	1	Gazeta de Noticias (RJ), October 26, ed. 296, 1877.
767	1877		73	12	1	Gazeta de Noticias (RJ), December 28, ed. 358, 1877.
768	1891	BA		23	1	Gazeta de Noticias (RJ), May 18, ed. 137, 1891.
769	1891	PB RN		23	2	Gazeta de Noticias (RJ), May 23, ed. 142, 1891.
770	1891	BA		23	1	Gazeta de Noticias (RJ), May 25, ed. 144, 1891.
771	1891		47	23	1	Gazeta de Noticias (RJ), July 2, ed. 183, 1891.
772	1891		234	12	1	Gazeta de Noticias (RJ), July 6, ed. 187, 1891.
773	1891		331	12	1	Gazeta de Noticias (RJ), July 27, ed. 208, 1891.
774	1891	BA RN		23	1 2	Gazeta de Noticias (RJ), October 15, ed. 288, 1891.
775	1891	BA		23	1	Gazeta de Noticias (RJ), December 3, ed. 337, 1891.
776	1892		285	23	2	Gazeta de Noticias (RJ), February 1, ed. 32, 1892.
777	1892		285	23	1	Gazeta de Noticias (RJ), February 8, ed. 39, 1892.

778	1892		288	23	1	Gazeta de Noticias (RJ), February 13, ed. 44, 1892.
779	1892		311	23	2	Gazeta de Noticias (RJ), March 14, ed. 74, 1892.
780	1892	SP		12	1	Gazeta de Noticias (RJ), March 23, ed. 83, 1892.
781	1892		311	23	1	Gazeta de Noticias (RJ), June 28, ed. 179, 1892.
782	1892		157	12	1	Gazeta de Noticias (RJ), July 12, ed. 193, 1892.
783	1892		311	23	2	Gazeta de Noticias (RJ), October 6, ed. 279, 1892.
784	1892		308	7	1	Gazeta de Noticias (RJ), October 15, ed. 288, 1892.
785	1892		311	23	1	Gazeta de Noticias (RJ), November 22, ed. 326, 1892.
786	1897		134	12	1	Gazeta de Noticias (RJ), January 14, ed. 14, 1897. "Trombas de Agua em Petropolis"
787	1897		311	23	1	Gazeta de Noticias (RJ), January 21, ed. 21, 1897.
788	1897		311	23	2	Gazeta de Noticias (RJ), January 22, ed. 22, 1897.
789	1897		321	23	1	Gazeta de Noticias (RJ), January 25, ed. 25, 1897.
790	1897		228	12	1	Gazeta de Noticias (RJ), January 27, ed. 27, 1897.
791	1897		319	7	1	Gazeta de Noticias (RJ), January 29, ed. 29, 1897.
			329	8		
792	1897	CE		7	1	Gazeta de Noticias (RJ), February 7, ed. 38, 1897.
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793	1897		226	12	1	Gazeta de Noticias (RJ), February 10, ed. 41, 1897.
794	1897		228	12	1	Gazeta de Noticias (RJ), February 19, ed. 50, 1897.
795	1897		311	7	1	Gazeta de Noticias (RJ), April 2, ed. 92, 1897.
			319	8		
796	1897	RS		12	1	Gazeta de Noticias (RJ), April 13, ed. 103, 1897.
797	1897		227	23	3	Gazeta de Noticias (RJ), April 30, ed. 120, 1897.
798	1897		172	12	1	Gazeta de Noticias (RJ), May 13, ed. 133, 1897.
799	1897		172	12	1	Gazeta de Noticias (RJ), May 18, ed. 138, 1897.
800	1897		172	12	2	Gazeta de Noticias (RJ), August 6, ed. 207, 1897.
801	1897		189	7	1	Gazeta de Noticias (RJ), September 8, ed. 251, 1897.
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802	1897		253	12	1	Gazeta de Noticias (RJ), September 26, ed. 269, 1897.
803	1897		308	23	1	Gazeta de Noticias (RJ), October 5, ed. 278, 1897.
804	1897		172	12	1	Gazeta de Noticias (RJ), December 1, ed. 335, 1897. "Temporal e Enchente"
805	1892		79	12	2	Gazeta de Petropolis (RJ), December 27, ed. 90, 1892.
806	1897		160	12	1	Gazeta de Petropolis (RJ), January 14, ed 6, 1897.
807	1897		172	12	2	Gazeta de Petropolis (RJ), February 18, ed. 21, 1897. "Terrivel Enchente"

808	1897		257	12	1	Gazeta de Petropolis (RJ), July 6, ed. 80, 1897. "Canudos"
809	1791	CE PE PI		23 26	2	Gazeta do Norte: Orgão Liberal (CE), November 12, ed. 129, 1880. "Historia da Patria: Apontamentos para a historia do Ceara".
810	1791	CE		23 26	2	Gazeta do Norte: Orgão Liberal (CE), July 16, ed. 149, 1885. "Noticias".
811	1791	PE		23 26	2	Gazeta do Norte: Orgão Liberal (CE), February 16, ed. 39, 1889.
812	1891		40	23	2	Gazeta do Sertão: Orgão Democrata (PB), April 3, ed. 12, 1891.
813	1859	RJ		7 8	1	Gazeta Official (PA), January 25, ed. 19, 1859.
814	1859		157	12	1	Gazeta Official (PA), June 15, ed. 132, 1859.
815	1859		157	12	2	Gazeta Official (PA), July 13, ed. 153, 1859.
816	1859		157 156	12	2	Gazeta Official (PA), July 23, ed. 162, 1859.
817	1826	CE		23	461 1	* Imperio do Brasil : Diario da Camara dos Deputados (RJ), à Assembleia Geral Legislativa do Brasil. 1826, ed. 00081, Sessão de 21 de Agosto de 1826.
818	1825	CE		23	14 1	* Imperio do Brasil : Diario da Camara dos Deputados (RJ), a Assembleia Geral Legislativa do Imperio do Brasil, ed. 00081, 1826. "Officios: Segundo".
819	1825	CE		23 29	13 1	* Imperio do Brasil : Diario da Camara dos Deputados (RJ), a Assembleia Geral Legislativa do Imperio do Brasil, ed. 00083, 1827. "Emenda de Redacção".
820	1825	CE		23 29	4 1	* Imperio do Brasil : Diario da Camara dos Deputados (RJ), a Assembleia Geral Legislativa do Imperio do Brasil, ed. 00103, 1830. "Requerimento".
821	1825	CE		23	507	Imperio do Brasil: Diario Fluminense (RJ), June 11, ed. 5 (127), 1825. "Repartição dos negócios da guerra".
822	1825	CE		23	21	Imperio do Brasil: Diario Fluminense (RJ), July 7, ed. 6 (6), 1825. "Repartição dos negócios da Fazenda".
823	1825	CE RN		23	374	Imperio do Brasil: Diario Fluminense (RJ), October 20, ed. 6 (93), 1825. "Repartição dos negócios do Imperio".
824	1825	PB		23	137	Imperio do Brasil: Diario Fluminense (RJ), February 14, ed. 7 (35), 1826.
825	1826	RJ		23 29	137 2	Imperio do Brasil: Diario Fluminense (RJ), February 14, ed. 7, 1826.

826	1826		87	23	453	1	Imperio do Brasil: Diario Fluminense (RJ), May 23, ed. 7, 1826.
827	1825	CE		23	463	1	Imperio do Brasil: Diario Fluminense (RJ), May 26, ed. 7 (116), 1826.
	1826			29			
828	1826	CE		23	461	2	Imperio do Brasil: Diario Fluminense (RJ), May 27 ed. 7, 1826.
829	1826	CE		23	465	1	Imperio do Brasil: Diario Fluminense (RJ), May 29 ed. 7, 1826.
830	1826		277	23	15	1	Imperio do Brasil: Diario Fluminense (RJ), July 5 ed. 8, 1826.
831	1865	PE		23	2		Jornal da Victoria (ES), August 20, ed. 39, 1864. "Pernambuco".
832	1897		321	23	2		Jornal de Caxias: Orgão Commercial e Noticioso (MA), March 6, ed. 70, 1897.
833	1891		34	23	2		Jornal de Noticias (BA), January 17, ed. 3357, 1891.
834	1891		34	23	1		Jornal de Noticias (BA), March 5, ed. 3394, 1891.
835	1891	BA		23	1		Jornal de Noticias (BA), March 6, ed. 3395, 1891.
836	1891	BA		23	1		Jornal de Noticias (BA), March 7, ed. 3396, 1891.
837	1891		272	23	1		Jornal de Noticias (BA), September 12, ed. 3545, 1891.
838	1892		284	23	1		Jornal de Noticias (BA), February 8, ed. 3664, 1892.
839	1892		262	23	1		Jornal de Noticias (BA), February 10, ed. 3666, 1892.
840	1892	RN	11	23	1		Jornal de Noticias (BA), February 18, ed. 3673, 1892.
			68				
			70				
			279				
841	1892		267	7	1		Jornal de Noticias (BA), June 23, ed. 3774, 1892.
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842	1892		33	23	1		Jornal de Noticias (BA), August 3, ed. 3806, 1892.
843	1892		34	23	1		Jornal de Noticias (BA), November 10, ed. 3888, 1892.
844	1892		216	12	1		Jornal de Noticias (BA), December 29, ed. 3928, 1892.
845	1865		147	23	1	4	Jornal de Recife (PE), February 7, ed. 30, 1865 (newspaper). "Chuvas".
846	1865		142	23	2	1	Jornal de Recife (PE), April 10, ed. 82, 1865. "Queimadas".
847	1865	RN		23	1	5	Jornal de Recife (PE), May 15, ed. 112, 1865. "Inverno".
848	1865	RN		23	2	2	Jornal de Recife (PE), June 12, ed. 135, 1865. "Rio Grande do Norte".

849	1865		333	7	2	1	Jornal de Recife (PE), August 16, ed. 188, 1865.
				8			
850	1865	RS		23	1	6	Jornal de Recife (PE), September 13, ed. 212, 1865. "Rio grande do Sul".
851	1865		328	12	2	2	Jornal de Recife (PE), November 17, ed. 267, 1865.
852	1865		231	23	2	2	Jornal de Recife (PE), December 20, ed. 294, 1865. "Navegação por vapor do rio Pirahy".
853	1875		282	23	1	5	Jornal de Recife (PE), January 30, ed. 24, 1875.
854	1875	RS		23	1	3	Jornal de Recife (PE), February 10, ed. 32, 1875.
855	1875		266	23	1	3	Jornal de Recife (PE), March 8, ed. 54, 1875.
856	1875		162	6	1	6	Jornal de Recife (PE), April 5, ed. 76, 1875.
			159				
857	1875		162	6	1	2	Jornal de Recife (PE), April 6, ed. 77, 1875.
858	1875		156	6	1	3	Jornal de Recife (PE), April 15, ed. 85, 1875.
			244				Both wet and dry Both wet and dry
			181				
859	1875		162	6	1	5	Jornal de Recife (PE), April 17, ed. 87, 1875.
860	1875		72	6	1	2	Jornal de Recife (PE), April 28, ed. 96, 1875.
			154				
			37				
861	1875		50	6	1	5	Jornal de Recife (PE), May 12, ed. 107, 1875.
862	1876		314	12	1	2	Jornal de Recife (PE), May 15, ed. 110, 1876.
863	1877		216	12	1	7	Jornal de Recife (PE), January 9, ed. 6, 1877.
864	1877		216	12	1	6	Jornal de Recife (PE), January 22, ed. 17, 1877.
865	1877		216	12	1	6	Jornal de Recife (PE), February 10, ed. 33, 1877.
866	1877		216	12	1	3	Jornal de Recife (PE), February 12, ed. 34, 1877.
867	1877		14	12	1	3	Jornal de Recife (PE), February 15, ed. 37, 1877.
868	1877		327	12	1	3	Jornal de Recife (PE), March 21, ed. 66, 1877.
869	1877		193	12	1	6	Jornal de Recife (PE), April 2, ed. 74, 1877.
870	1877		161	12	1	6	Jornal de Recife (PE), July 16, ed. 161, 1877.
871	1877		324	12	1	3	Jornal de Recife (PE), August 10, ed. 183, 1877.
872	1877		42	12	1	5	Jornal de Recife (PE), November 14, ed. 262, 1877.
873	1877		183	12	1	2	Jornal de Recife (PE), December 16, ed. 289, 1877.
874	1891		319	23	2	5	Jornal de Recife (PE), February 4, ed. 27, 1891.
875	1891	BA		23	2	7	Jornal de Recife (PE), April 2, ed. 72, 1891.
876	1891	PE		23	3	6	Jornal de Recife (PE), April 10, ed. 79, 1891.
877	1891		307	23	2	7	Jornal de Recife (PE), April 21, ed. 88, 1891.
878	1891	RN	44	6	2	2	Jornal de Recife (PE), April 23, ed. 90, 1891.
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879	1891	BA		23	2	5	Jornal de Recife (PE), May 6, ed. 101, 1891.
880	1891		251	6	2	6	Jornal de Recife (PE), May 20, ed. 112, 1891.
881	1891	BA		23	2	2	Jornal de Recife (PE), May 30, ed. 120, 1891.
882	1891		131	12	2	4	Jornal de Recife (PE), June 2, ed. 122, 1891.

883	1891	BA		23	2	7	Jornal de Recife (PE), June 11, ed. 130, 1891.
884	1891	PB		23	2	3	Jornal de Recife (PE), June 14, ed. 133, 1891.
885	1891	PB		23	2	6	Jornal de Recife (PE), June 21, ed. 139, 1891.
886	1891	BA		23	2	4	Jornal de Recife (PE), June 26, ed. 142, 1891.
887	1891	RJ		23	2	2	Jornal de Recife (PE), June 27, ed. 143, 1891.
888	1891	RN		23	2	5	Jornal de Recife (PE), July 1, ed. 145, 1891.
889	1891		189	12	2	4	Jornal de Recife (PE), July 4, ed. 148, 1891.
890	1891	RN		23	2	7	Jornal de Recife (PE), July 9, ed. 152, 1891.
891	1891	CE		23	2	5	Jornal de Recife (PE), July 12, ed. 155, 1891.
892	1891		323 327	6	2	7	Jornal de Recife (PE), July 22, ed. 163, 1891.
893	1891	PB		23	2	7	Jornal de Recife (PE), August 9, ed. 179, 1891.
894	1891	CE		23	2	7	Jornal de Recife (PE), August 12, ed. 181, 1891.
895	1891		31	23	2	4	Jornal de Recife (PE), August 28, ed. 194, 1891.
896	1891	PI		23	2	4	Jornal de Recife (PE), September 29, ed. 220, 1891.
897	1891	RN		23	2	7	Jornal de Recife (PE), October 9, ed. 229, 1891.
898	1891	SE		23	2	5	Jornal de Recife (PE), October 10, ed. 230, 1891.
899	1891	SE		23	2	5	Jornal de Recife (PE), October 23, ed. 241, 1891.
900	1891	BA		23	2	8	Jornal de Recife (PE), November 4, ed. 251, 1891.
901	1891	BA		23	2	4	Jornal de Recife (PE), November 8, ed. 255, 1891.
902	1891	BA		23	3	1	Jornal de Recife (PE), November 12, ed. 258, 1891.
903	1892		156 213	12	2	2	Jornal de Recife (PE), June 18, ed. 136, 1892. "Amazonas"
904	1897		187	12	2	7	Jornal de Recife (PE), April 1, ed. 73, 1897.
905	1897	SP		23	3	1	Jornal de Recife (PE), April 25, ed. 92, 1897.
906	1897		246	12	3	2	Jornal de Recife (PE), June 22, ed. 138, 1897.
907	1897	RS		12	2	6	Jornal de Recife (PE), July 24, ed. 163, 1897.
908	1791	BA		23	1	3	Jornal de Recife (PE), December 1, ed. 271, 1909. "Datas celebres: As secas".
		MA		26			
		PE					
		PI					
		SE					
909	1791	CE		23 26	1	3	Jornal de Recife (PE), April 22, ed. 108, 1919. "A secca".
910	1791	CE		23 26	2	4	Jornal de Recife (PE), February 28, ed. 48, 1931. "A secca".
911	1876	RJ		23	2		Jornal do Amazonas (AM), February 24, ed. 79, 1876. "Rio de Janeiro"
912	1876		171	23	2		Jornal do Amazonas (AM), June 11, ed. 104, 1876. "Bahia"
913	1876		207	23	1		Jornal do Amazonas (AM), July 25, ed. 117, 1876. "Noticias do Rio Madeira"

914	1876	RS		23	3	Jornal do Amazonas (AM), December 30, ed. 154, 1876. "O Uruguay Livre"
915	1877	CE		23	3	Jornal do Amazonas (AM), June 14, ed. 188, 1877.
916	1877	CE PB RN		23	2	Jornal do Amazonas (AM), July 23, ed. 197, 1877.
917	1877		131	23	3	Jornal do Aracaju (SE), February 14, ed. 773, 1877.
918	1877	CE		23	4	Jornal do Aracaju (SE), May 18, ed. 804, 1877.
919	1877	CE		23	3	Jornal do Aracaju (SE), May 30, ed. 807, 1877. "Noticias do Norte"
920	1877	CE PB		23	2	Jornal do Aracaju (SE), June 9, ed. 810, 1877. "Noticias do Norte" "A Secca"
921	1877	SE		23	2	Jornal do Aracaju (SE), August 22, ed. 831, 1877. "Victimas da Secca"
922	1877	SE		23	2	Jornal do Aracaju (SE), October 28, ed. 865, 1877. "Nova Aterradora"
923	1877	CE SE		23	2	Jornal do Aracaju (SE), December 4, ed. 895, 1877.
924	1891	BA		23	1	Jornal do Brasil (RJ), April 16, ed. 8, 1891.
925	1891	BA		23	1	Jornal do Brasil (RJ), May 14, ed. 36, 1891.
926	1891	BA		23	1	Jornal do Brasil (RJ), May 16, ed. 38, 1891.
927	1891	AL		23	3	Jornal do Brasil (RJ), May 17, ed. 39, 1891.
928	1891	RS		12	3	Jornal do Brasil (RJ), May 20, ed. 42, 1891.
929	1891	SE		23	2	Jornal do Brasil (RJ), May 24, ed. 46, 1891.
930	1891		172	23	1	Jornal do Brasil (RJ), June 9, ed. 62, 1891.
931	1891	PB		23	2	Jornal do Brasil (RJ), June 30, ed. 84, 1891.
932	1891	PB		23	1	Jornal do Brasil (RJ), July 2, ed. 85, 1891.
933	1891	RN		23	3	Jornal do Brasil (RJ), July 9, ed. 92, 1891.
934	1891		189	12	2	Jornal do Brasil (RJ), July 15, ed. 98, 1891.
935	1891		334	6	1	Jornal do Brasil (RJ), July 21, ed. 104, 1891.
936	1891		331	12	1	Jornal do Brasil (RJ), July 27, ed. 110, 1891.
937	1891		194	12	2	Jornal do Brasil (RJ), July 28, ed. 111, 1891.
938	1891	RS		23	1	Jornal do Brasil (RJ), August 8, ed. 122, 1891.
939	1891	PE		23	2	Jornal do Brasil (RJ), August 11, ed. 125, 1891.
940	1891	PI		23	2	Jornal do Brasil (RJ), August 19, ed. 133, 1891.
941	1891	PI		23	2	Jornal do Brasil (RJ), September 18, ed. 163, 1891.
942	1891	CE PE		23	2	Jornal do Brasil (RJ), September 20, ed. 165, 1891.
943	1891	CE PB PE RN		23	2	Jornal do Brasil (RJ), September 23, ed. 168, 1891.
944	1891	BA		23	1	Jornal do Brasil (RJ), October 8, ed. 183, 1891.

945	1891	BA RN		23	2	Jornal do Brasil (RJ), October 16, ed. 191, 1891.
946	1891	BA		23	1	Jornal do Brasil (RJ), October 21, ed. 196, 1891.
947	1891		33	23	1	Jornal do Brasil (RJ), October 23, ed. 203, 1891.
948	1891		267	23	4	Jornal do Brasil (RJ), October 29, ed. 204, 1891.
949	1891	BA		23	1	Jornal do Brasil (RJ), November 5, ed. 211, 1891.
950	1891	MA	126	23	1 2	Jornal do Brasil (RJ), November 15, ed. 221, 1891.
951	1891	BA		23	1	Jornal do Brasil (RJ), November 23, ed. 227, 1891.
952	1891		267	23	1	Jornal do Brasil (RJ), November 22, ed. 228, 1891.
953	1891		189	12	2	Jornal do Brasil (RJ), November 24, ed. 230, 1891.
954	1892		284	23	2	Jornal do Brasil (RJ), January 18, ed. 18, 1892.
955	1892		319	23	1	Jornal do Brasil (RJ), February 21, ed. 52, 1892.
956	1892		288	23	2	Jornal do Brasil (RJ), March 2, ed. 62, 1892.
957	1892		319	23	2	Jornal do Brasil (RJ), March 11, ed. 71, 1892.
958	1892		311	23	1	Jornal do Brasil (RJ), March 14, ed. 74, 1892.
959	1892		333	23	1	Jornal do Brasil (RJ), October 1, ed. 274, 1892.
960	1892		308	23	1	Jornal do Brasil (RJ), October 6, ed. 279, 1892.
961	1892		322	12	2	Jornal do Brasil (RJ), October 31, ed. 304, 1892.
962	1897		311	23	1	Jornal do Brasil (RJ), January 22, ed. 22, 1897.
963	1897		321	23	1 2 4	Jornal do Brasil (RJ), January 25, ed. 25, 1897.
964	1897		310	23	1 1	Jornal do Brasil (RJ), February 14, ed. 45, 1897.
965	1897		309	23	1 2	Jornal do Brasil (RJ), April 2, ed. 92, 1897.
966	1897		162	12	1 2	Jornal do Brasil (RJ), June 24, ed. 175, 1897. "As Inundacoes Desgracas Prejuizos"
967	1897		257	12	1 6	Jornal do Brasil (RJ), July 6, ed. 187, 1897.
968	1897		58	12	1 1	Jornal do Brasil (RJ), August 21, ed. 233, 1897. "Chuvas"
969	1833		221	23	1 1	Jornal do Commercio (RJ), February 20, ed. 47, 1833. "Campos on February 5, 1833".
970	1833		153	23	1 1	Jornal do Commercio (RJ), February 23, ed. 50, 1833.
971	1833		221	12	1 3	Jornal do Commercio (RJ), February 27, ed. 53, 1833.
972	1833		327	12	1 2	Jornal do Commercio (RJ), August 22, ed. 190, 1833.
973	1833		172	23	2 3	Jornal do Commercio (RJ), November 7, ed. 254, 1833.
974	1833		172	23	4 2	Jornal do Commercio (RJ), November 18, ed. 263, 1833. "Declaracoes"
975	1833		172	23	2 2	Jornal do Commercio (RJ), November 19, ed. 264, 1833. "Declaracoes"

976	1833		125	23	2	3	Jornal do Commercio (RJ), December 5, ed. 278, 1833. "Interior: Minas Geraes"
977	1833	MG		23	1	6	Jornal do Commercio (RJ), November 27, ed. 328, 1833. "Interior: Minas Gerais".
978	1833		109	23	2	1	Jornal do Commercio (RJ), January 15, ed. 11, 1834. "Minas Novas".
979	1833	RJ		23	3	1	Jornal do Commercio (RJ), January 7, ed. 4,
				30		2	1835. "Revista comercial da praça do Rio de Janeiro durante o anno de 1834".
980	1839		247	12	6	3	Jornal do Commercio (RJ), August 30, ed. 200 (Suplemento), 1839.
981	1825	GO		23	1	2	Jornal do Commercio (RJ), August 21, ed. 220,
	1839	PB		30			1840. "Camara dos Srs. Deputados".
982	1833		221	23	3	2	Jornal do Commercio (RJ), January 7, ed. 6,
				30			1842. "A inundaç�o em Campos".
983	1825	CE		23	1	4	Jornal do Commercio (RJ), June 20, ed. 164,
				29			1845. "Interior: Ceara".
984	1791	CE		23	2	2	Jornal do Commercio (RJ), June 25, ed. 174,
		MA		26			1846. "Segunda parte da ordem do dia:
		PB					Orcamento da reparti�o da fazenda".
		PE					
		RN					
985	1833		221	23	2	1	Jornal do Commercio (RJ), March 1, ed. 60,
				30			1849. "Le-se em o monitor campista o seguinte".
986	1850		281	12	1	1	Jornal do Commercio (RJ), January 11, ed. 11,
							1850. "Inunda�o em S. Paulo"
987	1850		178	23	3	3	Jornal do Commercio (RJ), March 26, ed. 84,
							1850.
988	1850		172	23	3	3	Jornal do Commercio (RJ), May 22, ed. 138,
							1850.
989	1850		RioP	12	3	4	Jornal do Commercio (RJ), July 26, ed. 203,
			araP				1850.
			Aw				
990	1804	PB	32	23	1	3	Jornal do Commercio (RJ), August 4, ed. 212,
		PE	177				1850.
991	1850		60	6	1	5	Jornal do Commercio (RJ), October 24, ed. 292,
							1850.
992	1853		172	23	1	2	Jornal do Commercio (RJ), January 17, ed. 17,
						6	1853. "Povo de Nitherohy Morre de Sede".
993	1853	BA		23	1	4	Jornal do Commercio (RJ), January 21, ed. 21,
							1853. "Bahia on January 11, 1853".
994	1850	SP		12	1	6	Jornal do Commercio (RJ), January 29, ed. 29,
							1853.
995	1853	CE		23	1	1	Jornal do Commercio (RJ), March 13, ed. 72,
		RN					1853.

996	1853		222	12	2	1	Jornal do Commercio (RJ), March 14, ed. 73, 1853.
997	1853		222 230 250	12	2	3	Jornal do Commercio (RJ), March 26, ed. 85, 1853.
998	1853		147	23	6	4	Jornal do Commercio (RJ), April 8, ed. 97, 1853. "Interior: Pernambuco, Recife on April 1, 1853".
999	1853	BA		23	2	2	Jornal do Commercio (RJ), April 9, ed. 98, 1853. "Interior: Bahia. S. Salvador on April 4, 1853".
1000	1853		239	23	1	1	Jornal do Commercio (RJ), April 22, ed. 111, 1853. "Exploração do rio S. Francisco".
1001	1853	BA	147	23	1	4 5	Jornal do Commercio (RJ), April 24, 113, 1853. "Pernambuco", "Bahia".
1002	1853		239	23	6	1 2	Jornal do Commercio (RJ), June 14, ed. 164, 1853. "Interior: Bahia".
1003	1825		68	23	2	2	Jornal do Commercio (RJ), June 25, ed. 175, 1853.
1004	1853	CE		23	1	4	Jornal do Commercio (RJ), July 8, ed. 188, 1853.
1005	1853	CE		23	2	1	Jornal do Commercio (RJ), July 25, ed. 205, 1853. "Discurso proferido pelo Sr. Paula Fonseca na sessão de 22 de Julho".
1006	1825	CE		23	1	5	Jornal do Commercio (RJ), August 27, ed. 237, 1853. "Camara dos Srs. Deputados".
1007	1853	RN		23	2	1	Jornal do Commercio (RJ), September 20, ed. 261, 1853. "Senado".
1008	1853	CE		23	1	2	Jornal do Commercio (RJ), October 9, ed. 280, 1853. "Ministério do Império".
1009	1853	BA		23	1	2	Jornal do Commercio (RJ), November 8, ed. 309, 1853. "Bahia".
1010	1853		125	23	1	6	Jornal do Commercio (RJ), November 27, ed. 328, 1853. "Minas Gerais: Ouro Preto on November 20, 1853".
1011	1853		219	23	1	6	Jornal do Commercio (RJ), December 21, ed. 352, 1853. "Le-se na Revista Commercial de Santos on December 19, 1853".
1012	1833 1859		179 219	23 30 12	1	4 5	Jornal do Commercio (RJ), January 12, ed. 12, 1859. "Diz a ordem da mesma data".
1013	1859		103	12	2	2	Jornal do Commercio (RJ), January 14, ed. 14, 1859.
1014	1859		219	12	1	2	Jornal do Commercio (RJ), January 27, ed. 27, 1859.
1015	1859	BA		23	2	2	Jornal do Commercio (RJ), February 14, ed. 45, 1859.
1016	1859	BA		23	1	1	Jornal do Commercio (RJ), February 26, ed. 57, 1859.

1017	1859	BA		23	2	2	Jornal do Commercio (RJ), March 8, ed. 67, 1859.
1018	1859	BA	158	12	1	6	Jornal do Commercio (RJ), March 28, ed. 86, 1859. Both wet and dry Both wet and dry
1019	1859	BA		23	1	4	Jornal do Commercio (RJ), April 1, ed. 90, 1859.
1020	1859	SP		12	5	5	Jornal do Commercio (RJ), April 15, ed. 103, 1859.
1021	1859		156	1	1	6	Jornal do Commercio (RJ), April 16, ed. 104, 1859.
1022	1859		172	12	1	3	Jornal do Commercio (RJ), April 19, ed. 108, 1859.
1023	1859	RJ		8	1	7	Jornal do Commercio (RJ), May 2, ed. 120, 1859.
1024	1859		149	12	1	7	Jornal do Commercio (RJ), May 7, ed. 125, 1859.
1025	1859	BA		23	1	5	Jornal do Commercio (RJ), May 30, ed. 148, 1859.
1026	1859	BA		23	5	7	Jornal do Commercio (RJ), June 3, ed. 152, 1859.
1027	1859		157	12	2	3	Jornal do Commercio (RJ), June 26, ed. 175, 1859.
1028	1859	MT MT		23	1	4	Jornal do Commercio (RJ), July 18, ed. 197, 1859. Both wet and dry Both wet and dry
1029	1859		178	7 8	3	2	Jornal do Commercio (RJ), July 27, ed. 206, 1859.
1030	1859	BA		23	2	1	Jornal do Commercio (RJ), August 8, ed. 218, 1859.
1031	1863		128	12	2	5	Jornal do Commercio (RJ), January 30, ed. 30, 1863.
1032	1863		173	12	2	3	Jornal do Commercio (RJ), February 2, ed. 33, 1863.
1033	1863		225	12	1	2	Jornal do Commercio (RJ), February 17, ed. 38, 1863.
1034	1863	RJ		12	1	5	Jornal do Commercio (RJ), February 8, ed. 39, 1863.
1035	1863		171	23	2	2	Jornal do Commercio (RJ), February 17, ed. 48, 1863.
1036	1863		56	23	6	4	Jornal do Commercio (RJ), March 7, ed. 65, 1863.
1037	1863	BA		23	1	6	Jornal do Commercio (RJ), April 9, ed. 97, 1863.
1038	1863		193	12	1	3	Jornal do Commercio (RJ), April 10, ed. 98, 1863.
1039	1863		284	23	2	7	Jornal do Commercio (RJ), April 13, ed. 101, 1863.
1040	1863		267	12	1	3	Jornal do Commercio (RJ), June 11, ed. 160, 1863.
1041	1863		162	12	1	3	Jornal do Commercio (RJ), July 14, ed. 193, 1863.

1042	1863	RS		12	1	3	Jornal do Commercio (RJ), September 5, ed. 245, 1863.
1043	1863		308	23	5	8	Jornal do Commercio (RJ), December 5, ed. 335, 1863.
1044	1863		270	23	1	7	Jornal do Commercio (RJ), December 7, ed. 337, 1863.
1045	1863	RS		23	1	2	Jornal do Commercio (RJ), December 22, ed. 352, 1863.
1046	1833		221	23 30	5	7	Jornal do Commercio (RJ), May 31, ed. 151, 1864.
1047	1865		269	23	1	5	Jornal do Commercio (RJ), February 28, ed. 59, 1865.
1048	1865		170	12	6	6	Jornal do Commercio (RJ), April 17, ed. 107, 1865.
1049	1865		239	12	1	4	Jornal do Commercio (RJ), June 10, ed. 160, 1865.
1050	1863		134	12	3	6	Jornal do Commercio (RJ), December 14, ed. 346, 1865.
1051	1865		206	12	1	3	Jornal do Commercio (RJ), December 22, ed. 354, 1865.
1052	1865		24	25	5	6	Jornal do Commercio (RJ), December 25, ed. 357, 1865.
1053	1875		147	23	3	1	Jornal do Commercio (RJ), January 16, ed. 16, 1875.
1054	1875		43	23	3	1	Jornal do Commercio (RJ), January 22, ed. 22, 1875.
1055	1875		13	23	2	6	Jornal do Commercio (RJ), February 4, ed. 35, 1875.
1056	1875		266	23	3	6	Jornal do Commercio (RJ), February 27, ed. 58, 1875.
1057	1875		162	6	3	4	Jornal do Commercio (RJ), April 20, ed. 109, 1875.
1058	1875		156 244 181	6	1	3	Jornal do Commercio (RJ), April 26, ed. 115, 1875. Both wet and dry Both wet and dry
1059	1875		282	23	3	4	Jornal do Commercio (RJ), May 5, ed. 124, 1875.
1060	1875		72	6	3	8	Jornal do Commercio (RJ), May 7, ed. 126, 1875.
1061	1875		242 252 57 190 199	6	3	8	Jornal do Commercio (RJ), May 20, ed. 139, 1875.
1062	1795 1875	CE	99	23	2	3	Jornal do Commercio (RJ), June 17, ed. 167, 1875.
1063	1875		216 267	23	3	1	Jornal do Commercio (RJ), November 21, ed. 323, 1875 Both wet and dry Both wet and dry

1064	1875		200	6	3	5	Jornal do Commercio (RJ), November 25, ed. 327, 1875.
1065	1875		192	6	3	5	Jornal do Commercio (RJ), December 11, ed. 343, 1875.
1066	1876		42 294	23	6	6	Jornal do Commercio (RJ), January 7, ed. 7, 1876. "Piauhy" "Campos"
1067	1876		219	23	3	5	Jornal do Commercio (RJ), January 11, ed. 11, 1876. "Grande Secca"
1068	1876		129	23	1	1	Jornal do Commercio (RJ), January 17, ed. 17, 1876. "Secca"
1069	1876		38 42	23	3	4	Jornal do Commercio (RJ), January 18, ed. 18, 1876 (newspaper). "Gazetilha"
1070	1876		120	23	2	2	Jornal do Commercio (RJ), January 20, ed. 20, 1876. "Publicações a pedido"
1071	1876		42	23	4	3	Jornal do Commercio (RJ), January 21, ed. 21, 1876. "Gazetilha"
1072	1876		80	23	3	1	Jornal do Commercio (RJ), January 30, ed. 30, 1876. "Gazetilha"
1073	1876		96 100	23	3	3	Jornal do Commercio (RJ), February 13, ed. 44, 1876. "Gazetilha"
1074	1876		101	23	3	2	Jornal do Commercio (RJ), March 3, ed. 63, 1876. "Gazetilha"
1075	1876		314	12	3	4	Jornal do Commercio (RJ), May 7, ed. 127, 1876.
1076	1876	MG RJ		23	3	7	Jornal do Commercio (RJ), August 21, ed. 233, 1876. "Gazetilha"
1077	1876		42	12	6	1	Jornal do Commercio (RJ), December 25, ed. 358, 1876.
1078	1877	CE PB PE RN		23	5	2	Jornal do Commercio (RJ), December 31, ed. 363, 1876. "Phenomenos Meteorologicos observados no Brazil"
1079	1876		303	12	2	6	Jornal do Commercio (RJ), January 3, ed. 3, 1877.
1080	1877		42	12	5	8	Jornal do Commercio (RJ), January 5, ed. 5, 1877.
1081	1876	MG		23	2	6	Jornal do Commercio (RJ), January 13, ed. 13, 1877. "A S. Ex. o Sr. Ministro da Agricultura"
1082	1877	RS	212	23 12	6	1 2	Jornal do Commercio (RJ), January 15, ed. 15, 1877. Both wet and dry Both wet and dry
1083	1877		104	12	3	8	Jornal do Commercio (RJ), January 21, ed. 21, 1877.
1084	1877		319	23	3	1	Jornal do Commercio (RJ), January 22, ed. 22, 1877.
1085	1877		94	23	3	6	Jornal do Commercio (RJ), January 23, ed. 23, 1877.

1086	1877		94	23	3	5	Jornal do Commercio (RJ), January 29, ed. 29, 1877.
1087	1877		319	23	3	1	Jornal do Commercio (RJ), February 3, ed. 34, 1877.
1088	1877	BA		12	1	4	Jornal do Commercio (RJ), February 4, ed. 35, 1877.
1089	1877		266	23	3	7	Jornal do Commercio (RJ), February 5, ed. 36, 1877.
1090	1877		239	23	3 4	7	Jornal do Commercio (RJ), February 15, ed. 46, 1877. Both wet and dry Both wet and dry
1091	1877		319	12		1	
1091	1877		266	23	3	8	Jornal do Commercio (RJ), February 16, ed. 47, 1877.
1092	1877		212	12	1	3	Jornal do Commercio (RJ), February 19, ed. 50, 1877.
1093	1877	RS		23	3	4	Jornal do Commercio (RJ), February 20, ed. 51, 1877.
1094	1877		227	23	3	5	Jornal do Commercio (RJ), February 22, ed. 53, 1877.
1095	1877	RS	266	23	3	5	Jornal do Commercio (RJ), February 27, ed. 58, 1877.
1096	1877		212	12	3	7	Jornal do Commercio (RJ), March 2, ed. 61, 1877.
1097	1877	CE		23	4	3	Jornal do Commercio (RJ), March 8, ed. 67, 1877.
1098	1877	PB		23	4	8	Jornal do Commercio (RJ), March 13, ed. 72, 1877.
1099	1877	CE		23	4	3	Jornal do Commercio (RJ), March 14, ed. 73, 1877. "Interior"
1100	1877	RS		23	1	1	Jornal do Commercio (RJ), March 16, ed. 75, 1877. "Rio Grande"
1101	1877		324	23	3	4	Jornal do Commercio (RJ), March 19, ed. 78, 1877.
1102	1877	PB		23	3	6	Jornal do Commercio (RJ), March 21, ed. 80, 1877.
1103	1877	RS		23	3		
1103	1877	CE	319	23	4	7	Jornal do Commercio (RJ), March 22, ed. 81, 1877. "Interior: Ceara"
1104	1877	RS	193	23	5	1	Jornal do Commercio (RJ), March 23, ed. 82, 1877. Both wet and dry Both wet and dry
1105	1877	RS		12		3	
1105	1877	RS		23	4	1	Jornal do Commercio (RJ), March 25, ed. 84, 1877.
1106	1877	CE		23	1	5	Jornal do Commercio (RJ), March 31, ed. 90, 1877.
1107	1877		240	12	4	7	Jornal do Commercio (RJ), April 1, ed. 91, 1877.
1108	1877	RS		23	4	6	Jornal do Commercio (RJ), April 5, ed. 94, 1877.
1109	1877	CE		23	4	6	Jornal do Commercio (RJ), April 7, ed. 96, 1877. "Interior: Ceara"

1110	1877		197	12	3	8	Jornal do Commercio (RJ), April 8, ed. 97, 1877.
1111	1877	CE		23	4	7	Jornal do Commercio (RJ), April 11, ed. 100, 1877.
		PB					
1112	1877	RS		23	1	1	Jornal do Commercio (RJ), April 14, ed. 103, 1877.
1113	1877	CE		23	2	3	Jornal do Commercio (RJ), April 16, ed. 104, 1877. "Secca no Ceara"
1114	1877	RS		23	3	3	Jornal do Commercio (RJ), April 21, ed. 110, 1877.
1115	1877	CE		23	4	5	Jornal do Commercio (RJ), April 22, ed. 112, 1877.
		PB					
1116	1877	CE		23	2 3	8	Jornal do Commercio (RJ), April 25, ed. 114, 1877. "Negocios do Ceara"
		PB				4	
		PE					
		RN					
		RS					
1117	1877	CE		23	5	2	Jornal do Commercio (RJ), April 28, ed. 117, 1877.
		PE					
1118	1877	RS		23	4	6	Jornal do Commercio (RJ), April 29, ed. 118, 1877.
1119	1877	CE		23	4	7	Jornal do Commercio (RJ), May 1, ed. 120, 1877.
		MA					
1120	1877	CE		23	3	3	Jornal do Commercio (RJ), May 11, ed. 130, 1877.
		RS					
1121	1877	CE		23	5	1	Jornal do Commercio (RJ), May 15, ed. 134, 1877. "Secca no Ceara" "Secca no Rio Grande"
		RN					
1122	1877	CE		23	2	6	Jornal do Commercio (RJ), May 17, ed. 136, 1877.
		MA					
		PB					
		PE					
		PI					
		RN					
		RS					
1123	1877	CE		23	2	6	Jornal do Commercio (RJ), May 18, ed. 137, 1877. "Secca do Norte"
		MA					
		PA					
		PB					
		PE					
		PI					
		RN					
1124	1877		180	12	5	1	Jornal do Commercio (RJ), May 29, ed. 148, 1877.
1125	1877		180	12	3	7	Jornal do Commercio (RJ), June 6, ed. 156, 1877.
1126	1877	CE		23	3	7	Jornal do Commercio (RJ), June 25, ed. 175, 1877.
		PB					
		PE					

1127	1877	PI RN MA		23	2	4	Jornal do Commercio (RJ), June 30, ed. 180, 1877.
1128	1877	AL BA CE PB PE	256	23 12	2 3	6 6	Jornal do Commercio (RJ), July 6, ed. 186, 1877. Both wet and dry Both wet and dry
1129	1877		256	12	4	2	Jornal do Commercio (RJ), July 21, ed. 201, 1877.
1130	1877		311	12	3	8	Jornal do Commercio (RJ), August 1, ed. 212, 1877.
1131	1877		236	12	3	2	Jornal do Commercio (RJ), September 21, ed. 262, 1877.
1132	1877	AL BA CE PB PE PI RN SE		23	5	1	Jornal do Commercio (RJ), October 12, ed. 284, 1877.
1133	1877		206	12	3	8	Jornal do Commercio (RJ), October 24, ed. 295, 1877.
1134	1877		326	12	2	6	Jornal do Commercio (RJ), November 1, ed. 303, 1877.
1135	1877	CE PA PB PE RN		23	3	5	Jornal do Commercio (RJ), November 22, ed. 324, 1877.
1136	1877		183	12	4	2	Jornal do Commercio (RJ), December 6, ed. 338, 1877.
1137	1877		157 328	12	4 5	7 4	Jornal do Commercio (RJ), December 14, ed. 346, 1877. "A vasante do Amazonas" Both wet and dry Both wet and dry
1138	1877		53	23	3	7	Jornal do Commercio (RJ), December 30, ed. 362, 1877.
1139	1791	CE		23 26	3	1	Jornal do Commercio (RJ), September 26, ed. 268, 1881. "Ceara".
1140	1891		224	6	1	1	Jornal do Commercio (RJ), January 8, ed. 8, 1891.
1141	1891		311	23	1	3	Jornal do Commercio (RJ), January 10, ed. 10, 1891.

1142	1891		84	23	1	1	Jornal do Commercio (RJ), February 2, ed. 33, 1891. Both wet and dry Both wet and dry
1143	1891	BA		23	1	4	Jornal do Commercio (RJ), February 3, ed. 34, 1891.
1144	1891		131	23	5	4	Jornal do Commercio (RJ), February 24, ed. 55, 1891.
1145	1891	PE	13	23	1	3	Jornal do Commercio (RJ), February 26, ed. 57, 1891.
1146	1891	CE		23	2	2	Jornal do Commercio (RJ), March 1, ed. 60, 1891.
1147	1891	BA		23	1	8	Jornal do Commercio (RJ), March 11, ed. 70, 1891.
1148	1891	BA		23	1	8	Jornal do Commercio (RJ), March 25, ed. 84, 1891.
1149	1891	BA		23	3	3	Jornal do Commercio (RJ), March 31, ed. 90, 1891.
1150	1891	BA		23	4	7	Jornal do Commercio (RJ), April 1, ed. 91, 1891.
1151	1891		6	23	1	1	Jornal do Commercio (RJ), April 13, ed. 102, 1891.
1152	1891	BA		23	1	7	Jornal do Commercio (RJ), April 16, ed. 105, 1891.
1153	1891		33	23	1	4	Jornal do Commercio (RJ), April 22, ed. 111, 1891.
1154	1891		6	23	1	1	Jornal do Commercio (RJ), May 9, ed. 128, 1891.
1155	1891		84	12	1	3	Jornal do Commercio (RJ), May 12, ed. 131, 1891.
1156	1891		93	6	2	3	Jornal do Commercio (RJ), May 22, ed. 141, 1891.
1157	1891		234	6	1	1	Jornal do Commercio (RJ), June 27, ed. 177, 1891.
1158	1891	PE		23	1	7	Jornal do Commercio (RJ), August 11, ed. 222, 1891.
1159	1891	PE		6	2	4	Jornal do Commercio (RJ), September 16, ed. 257, 1891.
1160	1891	BA		23	2	6	Jornal do Commercio (RJ), September 20, ed. 261, 1891.
1161	1891		34	23	1	3	Jornal do Commercio (RJ), September 21, ed. 262, 1891.
1162	1891	BA SE		23	2	7	Jornal do Commercio (RJ), October 13, ed. 284, 1891.
1163	1791	CE PB RN		23 26	2	5	Jornal do Commercio (RJ), October 28, ed. 300, 1891. "Noticia sobre a Parahyba".
1164	1891		267	23	2	7	Jornal do Commercio (RJ), October 29, ed. 301, 1891.

1165	1891		56	23	2	6	Jornal do Commercio (RJ), October 30, ed. 302, 1891.
1166	1891	BA		23	1	4	Jornal do Commercio (RJ), November 9, ed. 312, 1891.
1167	1891		189	12	1	3	Jornal do Commercio (RJ), November 14, ed. 317, 1891.
1168	1891	BA		23	1	3	Jornal do Commercio (RJ), November 20, ed. 323, 1891.
1169	1891	BA		23	1	4	Jornal do Commercio (RJ), November 21, ed. 324, 1891.
1170	1891	PB RN		23	1	2	Jornal do Commercio (RJ), December 12, ed. 350, 1891.
1171	1891		334	12	1	4	Jornal do Commercio (RJ), December 18, ed. 351, 1891.
1172	1892	BA		23	7	6	Jornal do Commercio (RJ), January 18, ed. 18, 1892.
1173	1892		284	23	3	5	Jornal do Commercio (RJ), February 14, ed. 45, 1892.
1174	1892		118	23	1	1	Jornal do Commercio (RJ), February 19, ed. 50, 1892.
1175	1892		250	12	1	7	Jornal do Commercio (RJ), March 8, ed. 68, 1892.
1176	1892		218	12	1	2	Jornal do Commercio (RJ), March 19, ed. 79, 1892.
1177	1892		226	12	1	5	Jornal do Commercio (RJ), April 26, ed. 116, 1892.
1178	1892	BA		7 8	3	2	Jornal do Commercio (RJ), May 8, ed. 128, 1892.
1179	1892		156	12	1	3	Jornal do Commercio (RJ), July 12, ed. 193, 1892. "Estados do Norte"
1180	1892		308	23	2	4	Jornal do Commercio (RJ), October 10, ed. 283, 1892.
1181	1892		13	23	1	5	Jornal do Commercio (RJ), December 14, ed. 348, 1892.
1182	1897		311	23	1	3	Jornal do Commercio (RJ), January 21, ed. 21, 1897.
1183	1897		331	23	3	3	Jornal do Commercio (RJ), January 25, ed. 25, 1897.
1184	1897		319	23	2	2	Jornal do Commercio (RJ), February 4, ed. 35, 1897.
1185	1897		192	12	1	6	Jornal do Commercio (RJ), February 22, ed. 53, 1897.
1186	1897		297	7 8	1	4	Jornal do Commercio (RJ), February 24, ed. 55, 1897.
1187	1897		84	23	1	7	Jornal do Commercio (RJ), March 13, ed. 72, 1897.

1188	1897		318	7	2	1	Jornal do Commercio (RJ), March 14, ed. 73, 1897.
1189	1897		308 319	7 8	2	2	Jornal do Commercio (RJ), April 2, ed. 92, 1897.
1190	1897	RS		23	2	7	Jornal do Commercio (RJ), April 9, ed. 99, 1897.
1191	1897		131	23	5	6	Jornal do Commercio (RJ), April 23, ed. 112, 1897.
1192	1897		213	12	4	4	Jornal do Commercio (RJ), June 11, ed. 161, 1897.
1193	1897		142	12	1	4	Jornal do Commercio (RJ), June 27, ed. 177, 1897.
1194	1897	PE		12	1	4	Jornal do Commercio (RJ), July 2, ed. 182, 1897. "Enchente em Pernambuco"
1195	1897		297	23	3	1	Jornal do Commercio (RJ), August 31, ed. 241, 1897.
1196	1897	RJ		23	1	4	Jornal do Commercio (RJ), December 7, ed. 339, 1897.
1197	1791	BA CE PE		23 26	2	7	Jornal do Commercio (RJ), January 26, ed. 26, 1899. "Le-se no Diário da Bahia".
1198	1791	RN		23 26	3	2	Jornal do Commercio (SC), January 18, ed. 13, 1881. "Curioso documento".
1199	1891		131	12	2	2	Jornal do Commercio (SC), May 17, ed. 73, 1891.
1200	1891	AL		23	2	2	Jornal do Commercio (SC), May 30, ed. 83, 1891.
1201	1891	BA		23	2	3	Jornal do Commercio (SC), June 9, ed. 91, 1891.
1202	1891		189	12	1	1	Jornal do Commercio (SC), June 16, ed. 97, 1891.
1203	1891		189	12	1	5	Jornal do Commercio (SC), June 20, ed. 101, 1891.
1204	1891		189	12	1	1	Jornal do Commercio (SC), June 21, ed. 102, 1891.
1205	1891		189	12	2	2	Jornal do Commercio (SC), July 8, ed. 114, 1891.
1206	1891		189	12	1	3	Jornal do Commercio (SC), July 10, ed. 115, 1891.
1207	1891	PB		23	2	1	Jornal do Commercio (SC), November 1, ed. 210, 1891.
1208	1891		189	12	1	1	Jornal do Commercio (SC), November 10, ed. 216, 1891.
1209	1891	BA		23	1	5	Jornal do Commercio (SC), November 28, ed. 232, 1891.
1210	1892		213	12	1	2	Jornal do Commercio (SC), June 23, ed. 100, 1892. "Os Desterrados"
1211	1877	PA		23	2	2	Jornal do Pará : Orgão Official (PA), June 21, ed. 139, 1877.
1212	1877	PA PB RN		23	1	5	Jornal do Pará : Orgão Official (PA), Junho 22, ed. 140, 1877.

1213	1877	CE PA PB RN	23	3	1	Jornal do Pará : Órgão Oficial (PA), July 18, ed. 161, 1877.	
1214	1877	CE PA PB RN	23	2	1	Jornal do Pará : Órgão Oficial (PA), August 25, ed. 193, 1877.	
1215	1877		71 90 130	12	1	4	Jornal do Pará : Órgão Oficial (PA), October 27, ed. 245, 1877.
1216	1877	RN		33	10	1	** Mensagem apresentada ao Congresso Legislativo na abertura da Primeira Sessão da Nona Legislatura Em 1º de Novembro de 1916, pelo governador Desembargador Joaquim Ferreira Chaves. Natal, 1916.
1217	1877	RN		22	13	1	** Mensagem apresentada pelo Governador Alberto Maranhão ao passar o Governo do Estado ao Dr. Augusto Tavares de Lyra no dia 25 de Março de 1904. Natal. “Secca e Socorros”.
1218	1877	RN		22	89	1	** Mensagem dirigida pelo Governador Dr. Joaquim Ferreira Chaves Filho ao Congresso Legislativo do Estado do Rio Grande do Norte ao abrir-se a 2ª Sessão ordinária da 2ª Legislatura em 15 de Julho de 1896 acompanhada do relatório da secretaria e anexos. Natal, 1896.
1219	1865	PE		23	1	2	Mercante: Publica-se em dias intercalados sob a direcção de Boaventura José de Castro e Azevêdo (AL), October 31, ed. 131, 1864. “De que estamos ameaçados”.
1220	1892		310	23	3	2	Minas Geraes: Orgam Oficial dos Poderes do Estado (MG), November 7, ed. 195, 1892.
1221	1897	PR		23	7	4	Minas Geraes: Orgam Oficial dos Poderes do Estado (MG), May 16, ed. 128, 1897.
1222	1897		80	23	6	2	Minas Geraes: Orgam Oficial dos Poderes do Estado (MG), May 30, ed. 142, 1897.
1223	1897		248	12	2	2	Minas Geraes: Orgam Oficial dos Poderes do Estado (MG), August 18, ed. 219, 1897.
1224	1897		214	7 8	2	2	Minas Geraes: Orgam Oficial dos Poderes do Estado (MG), August 20, ed. 221, 1897.
1225	1891	BA		23	1	6	Monitor Campista (RJ), April 18, ed. 89, 1891.
1226	1891	AL		23	1	2	Monitor Campista (RJ), May 19, ed. 114, 1891.
1227	1891	RS		12	1	7	Monitor Campista (RJ), May 23, ed. 118, 1891.
1228	1891		328	12	1	2	Monitor Campista (RJ), June 28, ed. 147, 1891.

1229	1891		320 327 333	6	2	1	Monitor Campista (RJ), July 5, ed. 153, 1891.
1230	1891		323 327	6	1	4	Monitor Campista (RJ), July 13, ed. 161, 1891.
1231	1891	BA		23	1	2	Monitor Campista (RJ), October 8, ed. 232B, 1891.
1232	1865		226	12	1	3	Monitor Machadense: Jornal Politico, Litterario, Commercial e Agricola (RJ), October 31, ed. 340, 1865.
1233	1891		224	6	2	4	Novidades (RJ), January 8, ed. 7, 1891.
1234	1891	SE		23	2	2	Novidades (RJ), April 13, ed. 84, 1891.
1235	1891		334	12	1	7	Novidades (RJ), May 22, ed. 209, 1891.
1236	1891	BA		23	2	1	Novidades (RJ), June 17, ed. 227, 1891.
1237	1891		234	12	2	3	Novidades (RJ), July 9, ed. 247, 1891.
1238	1891	BA RN		23	1	3	Novidades (RJ), October 16, ed. 344, 1891.
1239	1891	SE		23	1	3	Novidades (RJ), October 19, ed. 346, 1891.
1240	1891	BA		23	1	5	Novidades (RJ), October 21, ed. 348, 1891.
1241	1891	BA		23	1	7	Novidades (RJ), November 20, ed. 372, 1891.
1242	1892	SP		12	2	3	Novidades (RJ), March 11, ed. 58, 1892.
1243	1892	SP	219	12	2	4	Novidades (RJ), March 23, ed. 68, 1892.
1244	1875		142	23	2	5	O Apostolo: Periodico religioso, moral e doutrinário, consagrado aos interessados da religião e da sociedade (RJ), February 17, ed. 36, 1875.
1245	1875		218 209	6	2	5	O Apostolo: Periodico religioso, moral e doutrinário, consagrado aos interessados da religião e da sociedade (RJ), May 9, ed. 89, 1875.
1246	1875		155	6	1	5	O Apostolo: Periodico religioso, moral e doutrinário, consagrado aos interessados da religião e da sociedade (RJ), June 13, ed. 104, 1875.
1247	1875	PB		6	1	5	O Apostolo: Periodico religioso, moral e doutrinário, consagrado aos interessados da religião e da sociedade (RJ), August 25, ed. 135, 1875.
1248	1891	BA		23	3	3	O Apostolo: Periodico religioso, moral e doutrinário, consagrado aos interesses da religião e da sociedade (RJ), January 30, ed. 10, 1891.
1249	1891	CE		23	2	5	O Apostolo: Periodico religioso, moral e doutrinário, consagrado aos interesses da religião e da sociedade (RJ), April 17, ed. 42, 1891.
1250	1891	BA		23	2	4	O Apostolo: Periodico religioso, moral e doutrinário, consagrado aos interesses da religião e da sociedade (RJ), April 19, ed. 43, 1891.

1251	1891		327	6	2	2	O Apostolo: Periodico religioso, moral e doutrinário, consagrado aos interesses da religião e da sociedade (RJ), July 10, ed. 76, 1891.
1252	1891		323 327	6	2	5	O Apostolo: Periodico religioso, moral e doutrinário, consagrado aos interesses da religião e da sociedade (RJ), July 15, ed. 78, 1891.
1253	1891	BA		23	2	2	O Apostolo: Periodico religioso, moral e doutrinário, consagrado aos interesses da religião e da sociedade (RJ), October 9, ed. 113, 1891.
1254	1859		76	23	1	1	O Araripe, February 12, ed. 176, 1859.
1255	1859	CE		7 8	3	1	O Araripe, March 5, ed. 179, 1859.
1256	1859	BA		23	2	1	O Argos da Provincia de Santa Catarina (SC), July 14, ed. 466, 1859.
1257	1833	RJ		23	25	1	O Auxiliador da Industria Nacional: Ou Collecção de memorias e Noticias interessantes (RJ), ed. 10, 1833. "Correspondencia".
1258	1833	RJ		23 30	7	1	O Auxiliador da Industrial Nacional: Ou Collecção de memorias e Noticias interessantes (RJ), ed. 5, 1834. "reflexões extrahidas de hum Relatorio feito a sociedade de agricultura de Antigua, sobre a cultura das terras com arados; emprego de cavalos no mesmo serviço, e methodo de os tratar; assim como sobre a cultura do capim, e uso do mesmo depois de maduro, e posto em estado de feno; tudo applicado ao Brazil".
1259	1850	SP		14	1	1	O Brasil: Vestra res agitur (RJ), January 15, ed. 1562, 1850. "Calamidade Publica"
1260	1891		131	23	2	6	O Brazil: Folha Diaria (RJ), January 8, ed. 229, 1891.
1261	1891	BA		23	1	5	O Brazil: Folha Diaria (RJ), June 20, ed. 364, 1891.
1262	1891	PB		23	2	4	O Brazil: Folha Diaria (RJ), June 28, ed. 370, 1891.
1263	1891	AL		23	2	1	O Brazil: Folha Diaria (RJ), July 29, ed. 395, 1891.
1264	1891	CE		23	2	2	O Brazil: Folha Diaria (RJ), July 31, ed. 397, 1891.
1265	1891		194	6	2	5	O Brazil: Folha Diaria (RJ), August 2, ed. 399, 1891.
1266	1891	PB		23	3	5	O Brazil: Folha Diaria (RJ), August 10, ed. 406, 1891.
1267	1891	PB		23	3	3	O Brazil: Folha Diaria (RJ), August 18, ed. 408, 1891.

1268	1791	CE	23	2	6	O Brazil: Folha Diaria (RJ), November 3, ed. 476, 1891. "Breve noticia sobre a Parahyba".
		PB	26			
1269	1791	CE	23	3	5	O Brazil: Folha Diaria (RJ), November 25, ed. 479, 1891. "Breve noticia sobre a Parahyba".
		PB	26			
1270	1891		191	12	1	3 O Cachoeirano: Orgão do Povo - Columnas francas a todas as intelligencias (ES), December 21, ed. 40, 1891.
1271	1892	CE	23	1	4	O Cachoeirano: Orgão do Povo - Columnas francas a todas as intelligencias (ES), June 19, ed. 24, 1892.
		PB				
		PE				
		RN				
1272	1825	PE	23	14	2	O Carapuceiro: Periodico semper moral, e so'per accidens Politico (PE), May 7, ed. 1, 1832. "A religião".
1273	1825	CE	23	2	2	O Cearense (CE), August 5, ed. 73, 1847. "Falla".
			29			
1274	1825	CE	23	2	4	2 O Cearense (CE), January 21, ed. 300, 1850. "As
	1850	BA	29		2	nossas matas".
			14			
1275	1850	BA	23	2	2	O Cearense (CE), May 30, ed. 334, 1850. Both
		RS			3	wet and dry Both wet and dry
1276	1825		145	23	3	3 O Cearense (CE), August 23, ed. 358, 1850.
			29			"Necrologia".
1277	1853		110	23	4	2 O Cearense (CE), February 8, ed. 601, 1853.
						"Notícias da Província: Missão-Velha on January 26, 1853".
1278	1853		64	23	4	3 O Cearense (CE), February 11, ed. 602, 1853.
			145			"Notícias da Província: Granja, Queixeramobim".
1279	1853		147	23	1	3 O Cearense (CE), February 15, ed. 603, 1853.
						"Correspondência do Cearense: Recife on February 5, 1853".
1280	1825	CE	23	1	1	O Cearense (CE), February 18, ed. 604, 1853. "A
	1853					Secca".
1281	1853		148	23	4	1 O Cearense (CE), March 1, ed. 607, 1853. "Vapor
						do Sul".
1282	1853		77	23	3	2 O Cearense (CE), March 4, ed. 608, 1853.
						"Notícias da Província: Ipu".
1283	1853	BA	23	1	1	O Cearense (CE), March 18, ed. 612, 1853.
		MA				"Corresponds. do Cearense: Rio de Janeiro on February 27, 1853".
1284	1853	CE	23	3	1	O Cearense (CE), March 29, ed. 614, 1853.
						"Correspond. Do Cearense: Rio on March 10, 1853".
1285	1853		59	23	3	4
			147		1	2
						O Cearense (CE), April 1, ed. 615, 1853. "Recife on March 21, 1853", "Notícias da Província: Fortalesa on April 1, 1853".

1286	1853		77	23	4	1	O Cearense (CE), April 5, ed. 616, 1853. "Correspondência da Providência: Ipu on March 18, 1853".
1287	1853	CE	219	23	3	1	O Cearense (CE), April 12, ed. 618, 1853. "Vapor do Sul", "Corresponds do Cearense: Rio on March 24, 1853". Both wet and dry Both wet and dry
1288	1853	CE RN		23	1	1 3	O Cearense (CE), April 15, ed. 619, 1853. "Interior: Rio de Janeiro", "Correspond. Do Cearense".
1289	1853	CE		23	1	1	O Cearense (CE), April 22, ed. 621, 1853. "Ensaio sobre a secca".
1290	1825	CE		23	2	1	O Cearense (CE), April 26, ed. 622, 1853. "Ensaio sobre a secca".
1291	1853	CE		23	1	1	O Cearense (CE), May 3, ed. 624, 1853. "Correspond. Do Cearense: Rio on April 10, 1853".
1292	1853	CE		23	1	1	O Cearense (CE), May 13, ed. 627, 1853. "Correspond. Do Cearense: Rio on April 25, 1853".
1293	1853		147	23	3	1	O Cearense (CE), May 17, ed. 628, 1853. "Recife on May 7, 1853".
1294	1825 1853	CE		23	3	2	O Cearense (CE), May 24, ed. 630, 1853. "Ensaio sobre a secca".
1295	1825 1853	MA PA	289	23	3	3	O Cearense (CE), June 3, ed. 633, 1853. "Sobral, 25 de Maio de 1853".
1296	1853	CE		23	3	2	O Cearense (CE), June 7, ed. 634, 1853. "Comunicados: Proibição do despacho de mercadorias estrangeiras com cartas de guia".
1297	1853		76	23	3	3	O Cearense (CE), June 10, ed. 635, 1853. "Inhamuns on May 28, 1853".
1298	1853	MA		23	3	2	O Cearense (CE), June 14, ed. 636, 1853. "Vapor do Norte".
1299	1853	CE		23	2	2	O Cearense (CE), June 17, ed. 637, 1853. "A colheita deste anno".
1300	1853		76	23	4	1	O Cearense (CE), July 8, ed. 643, 1853. "Notícias da provincial".
1301	1853		145	23	3	2	O Cearense (CE), July 26, ed. 648, 1853. "Publicações a pedido".
1302	1853	CE		23	2	1	O Cearense (CE), September 20, ed. 664, 1853.
1303	1853	CE		23	3	2	O Cearense (CE), November 1, ed. 676, 1853. "A lei do dízimo".
1304	1825	CE		23 29	2	2	O Cearense (CE), January 4, ed. 895, 1856. "Ensaio sobre a secca".
1305	1791 1825	CE		23 29	1	2	O Cearense (CE), December 15, ed. 1084, 1857. "A questao alimenticia".

1306	1825	CE		23	1	3	O Cearense (CE), July 29, ed. 1246, 1859.
				29			
1307	1791	CE		23	4	1	O Cearense (CE), August 30, ed. 1255, 1859.
	1825			29		2	"Seccas no Ceara".
1308	1863		68	23	1	4	O Cearense (CE), January 16, ed. 1559, 1863.
			74				
1309	1863		59	23	2	2	O Cearense (CE), February 6, ed. 1562, 1863.
1310	1863		213	12	1	1	O Cearense (CE), March 6, ed. 1566, 1863.
1311	1863	AL		12	1	3	O Cearense (CE), May 29, ed. 1578, 1863.
							"Enchente"
1312	1825	CE		23	2	4	O Cearense (CE), December 8, ed. 1759, 1864.
				29			
1313	1865	PB		23	3	1	O Cearense (CE), January 12, ed. 1774, 1865.
							"Correspondencia do Cearense: Parahyba on January 1, 1865".
1314	1865	CE		23	3	2	O Cearense (CE), January 26, ed. 1780, 1865.
							"Comunicado".
1315	1865		147	23	2	3	O Cearense (CE), February 16, ed. 1789, 1865.
							"Chuvas".
1316	1865		305	23	3	2	O Cearense (CE), March 2, ed. 1795, 1865.
							"Correspondências: Viçosa on February 8, 1865".
1317	1865	CE		23	3	4	O Cearense (CE), April 22, ed. 1815, 1865. "Le-se no Progressista".
1318	1865	CE		23	2	4	O Cearense (CE), May 4, ed. 1820, 1865.
1319	1865		64	23	4	3	O Cearense (CE), June 27, ed. 1842, 1865.
							"Private letter from Cidade da Granja on April 12, 1865".
1320	1865	CE		23	1	1	O Cearense (CE), July 11, ed. 1850, 1865.
							"Rendas Geraes".
1321	1865		305	23	2	1	O Cearense (CE), November 19, ed. 1956, 1865.
							"Correspondências: Viçosa on November 9, 1865".
1322	1865		52	23	1	1	O Cearense (CE), February 2, ed. 2010, 1866.
							"Noticiario: Crato on January 10, 1866".
1323	1865	CE		23	1	4	O Cearense (CE), January 8, ed. 3, 1871. "A criação do gado bovino na província do Ceara".
				32			
1324	1825	CE		23	1	4	O Cearense (CE), May 17, ed. 56, 1871. "A conquista do Caninde".
				29			
1325	1875		162	6	2	1	O Cearense (CE), April 18, ed. 30, 1875.
1326	1875		255	6	2	3	O Cearense (CE), May 2, ed. 34, 1875.
			199			4	
1327	1875	MA		6	3	2	O Cearense (CE), May 9, ed. 36, 1875.
1328	1825	CE	99	6	2	2	O Cearense (CE), May 20, ed. 39, 1875.
	1875						
1329	1875	RS		23	2	2	O Cearense (CE), May 27, ed. 41, 1875.

1330	1825	CE		23 29	2	4	O Cearense (CE), May 30, ed. 42, 1875. "Para a historia do Ceara".
1331	1825	CE		23 29	3	4	O Cearense (CE), June 10, ed. 45, 1875. "Para a historia do Ceara".
1332	1875	CE		23	2	4	O Cearense (CE), November 28, ed. 94, 1875.
1333	1875		192	6	3	1	O Cearense (CE), December 16, ed. 99, 1875.
1334	1791	BA		23	2	3	O Cearense (CE), May 28, ed. 49, 1876.
	1825	CE		29			"Apontamentos para a historia do Ceara".
		PE					
1335	1825	CE		23 29	1	2	O Cearense (CE), July 21, ed. 70, 1876. "Relatorios de 1850 a 1853".
1336	1825	BA		23 29	3	2	O Cearense (CE), February 18, ed. 14, 1877. "Secca".
1337	1865		239	23 32	2	2	O Cearense (CE), April 5, ed. 29, 1877. "Bahia".
1338	1825	CE		23 29	1	2	O Cearense (CE), May 3, ed. 38, 1877. "O Conselheiro Alencar".
1339	1825	CE		23 29	4	1	O Cearense (CE), May 10, ed. 40, 1877. "Jose d'Alencar, a proposito da secca".
1340	1825	CE		23 29	4	2	O Cearense (CE), May 24, ed. 44, 1877. "A respeito da secca".
1341	1825	CE		23 29	2	3	O Cearense (CE), May 27, ed. 45, 1877. "Secca".
1342	1825	CE		23 29	2	1	O Cearense (CE), June 10, ed. 49, 1877. "Secca".
1343	1825	CE		23 29	2	2	O Cearense (CE), July 1, ed. 55, 1877. "Secca".
1344	1825	CE		23 29	1	3	O Cearense (CE), July 5, ed. 56, 1877. "Emigração para o Amazonas".
1345	1825		107	23 29	2	2	O Cearense (CE), October 4, ed. 84, 1877. "Secca".
1346	1825	CE		23 29	3	1	O Cearense (CE), March 16, ed. 30, 1879.
1347	1825	CE		23 29	3	4	O Cearense (CE), May 13, ed. 50, 1879. "Eleicao do Ceara".
1348	1825	CE		23 29	2	4	O Cearense (CE), September 19, ed. 102, 1879. "Assembleia Legislativa Provincial".
1349	1825	CE		23 29	2	1	O Cearense (CE), October 10, ed. 111, 1879. "Os açudes".
1350	1791	CE		23 26	2	2	O Cearense (CE), February 16, ed. 16, 1880. "Seccas no Ceara".
1351	1791	CE		23 29	2	4	O Cearense (CE), February 19, ed. 17, 1880. "Seccas no Ceara".
	1825						
	1833						
1352	1791	CE		23 26	2	2	O Cearense (CE), February 22, ed. 18, 1880. "Seccas no Ceara".

1353	1825	CE		23	2	3	O Cearense (CE), March 14, ed. 27, 1880.
				29			“Memorias sobre o clima e as seccas do Ceara”.
1354	1825	CE		23	3	2	O Cearense (CE), September 22, ed. 181, 1882.
				29			“Camara dos Srs Deputados”.
1355	1825	CE		23	2	2	O Cearense (CE), April 24, ed. 86, 1884. “A
				29			historia da secca do Ceara”.
1356	1825	CE		23	2	2	O Cearense (CE), October 16, ed. 233, 1887.
				29			“Discurso pronunciado na sessao de 24 de
							Setembro de 1887”.
1357	1891	BA		23	2	2	O Cearense (CE), May 30, ed. 111, 1891.
1358	1891	BA		23	2	3	O Cearense (CE), June 27, ed. 134, 1891.
1359	1892		169	12	1	6	O Combate (RJ), June 22, ed. 153, 1892.
1360	1850		273	23	1	2	O Commercial: Jornal dos Interesses Comerciaes,
							Agricolas, Industriaes e de Literatura (PE), April
							16, ed. 73, 1850.
1361	1897		162	12	2	3	O Commercio de São Paulo (SP), June 26, ed.
							1245, 1897.
1362	1897		328	12	2	3	O Commercio de São Paulo (SP), September 10,
							ed. 1310, 1897.
1363	1853	CE RN		23	1	1	O Constitucional: Folha Politica, Litteraria e
							Commercial (BA), March 18, ed. 16, 1853.
							“Maranhão on March 17, 1853”.
1364	1825		68	23	1	4	O Constitucional (RJ), June 28, ed. 45, 1853.
							“Maranhao, 27 de Junho de 1853”.
1365	1853		113	23	3	2	O Constitucional: Folha Politica, Litteraria e
							Commercial (BA), November 12, ed. 84, 1853.
1366	1863		250	12	3	2	O Constitucional: Jornal Politico (SP), February
							21, ed. 134, 1863.
1367	1850		281	12	2	2	O Correio da Tarde: Jornal Politico, Litterario,
							Commercial (RJ), January 12, ed. 588, 1850.
							“Inundacao na capital d’esta Provincia”
1368	1850	BA		7	1	3	O Correio da Tarde: Jornal Politico, Litterario,
				8			Commercial (RJ), May 3, ed. 677, 1850.
1369	1850		311	12	3	1	O Correio da Tarde: Jornal Politico, Litterario,
							Commercial (RJ), August 27, ed. 767, 1850.
1370	1850		198	12	3	4	O Correio da Tarde: Jornal Politico, Litterario,
							Commercial (RJ), October 11, ed. 805, 1850.
1371	1833		221	23	3	3	O Correio da Tarde: Jornal Politico, Litterario,
				30			Commercial (RJ), March 28, ed. 936, 1851.
1372	1859	CE		23	3	1	O Correio da Tarde: Jornal Commercial, Politico,
							Litterario e Noticioso (RJ), January 7, ed. 5,
							1859.
1373	1859	CE	219	23	3	1	O Correio da Tarde: Jornal Commercial, Politico,
							Litterario e Noticioso (RJ), January 8, ed. 6,
							1859. Both wet and dry Both wet and dry

1374	1859		188 219	12	3	1	O Correio da Tarde: Jornal Commercial, Politico, Litterario e Noticioso (RJ), January 11, ed. 8, 1859.
1375	1859		219	12	3	2	O Correio da Tarde: Jornal Commercial, Politico, Litterario e Noticioso (RJ), January 13, ed. 10, 1859.
1376	1859		219	12	3	2	O Correio da Tarde: Jornal Commercial, Politico, Litterario e Noticioso (RJ), January 22, ed. 18, 1859.
1377	1859	BA		23	3	3	O Correio da Tarde: Jornal Commercial, Politico, Litterario e Noticioso (RJ), February 12, ed. 36, 1859.
1378	1859	BA	7	23	3	2	O Correio da Tarde: Jornal Commercial, Politico, Litterario e Noticioso (RJ), February 14, ed. 37, 1859.
1379	1859	BA	7	23	3	4	O Correio da Tarde: Jornal Commercial, Politico, Litterario e Noticioso (RJ), February 25, ed. 47, 1859.
1380	1859		178	23	3	1	O Correio da Tarde: Jornal Commercial, Politico, Litterario e Noticioso (RJ), March 24, ed. 70, 1859.
1381	1859	BA		23	2	1	O Correio da Tarde: Jornal Commercial, Politico, Litterario e Noticioso (RJ), April 6, ed. 80, 1859.
1382	1859	BA		23	3	2	O Correio da Tarde: Jornal Commercial, Politico, Litterario e Noticioso (RJ), April 12, ed. 85, 1859.
1383	1859		267	12	1	3	O Correio da Tarde: Jornal Commercial, Politico, Litterario e Noticioso (RJ), June 15, ed. 137, 1859.
1384	1859		162	12	2	4	O Correio da Tarde: Jornal Commercial, Politico, Litterario e Noticioso (RJ), July 8, ed. 154, 1859.
1385	1859	SE		7 8	3	2	O Correio da Tarde: Jornal Commercial, Politico, Litterario e Noticioso (RJ), July 13, ed. 158, 1859.
1386	1859		172	7 8	2	6	O Correio da Tarde: Jornal Commercial, Politico, Litterario e Noticioso (RJ), November 21, ed. 269, 1859.
1387	1825		102	23 29	2	1	O Cruzeiro: Jornal Politico, Literario e Mercantil (PE), September 30, ed. 114, 1829. "Correspondencias".
1388	1892	PA		12	2	2	O Democrata: Orgao do Partido Republicano Democratico (PA), April 28, ed. 92, 1892. "Inundacoes"
1389	1892		169	12	1	6	O Democrata Orgao do Partido Republicano Democratico (PA), June 28, ed. 139, 1892.

1390	1892	AM		12	1	4	O Democrata Orgao do Partido Republicano Democratico (PA), July 14, ed. 152, 1892.
1391	1892		3	12	2	5	O Democrata Orgao do Partido Republicano Democratico (PA), July 27, ed. 162, 1892.
1392	1839		258	12	2	2	O Despertador (RJ), April 20, ed. 313, 1839.
1393	1863	PR RS SC		23	1	3	O Despertador (SC), December 22, ed. 98, 1863.
1394	1863		58	23	1	1	O Despertador (SC), December 25, ed. 99, 1863.
1395	1863		58	7	1	1	O Despertador (SC), January 26, ed. 108, 1863.
				8			
1396	1865		168	8	2	3	O Despertador (SC), February 17, ed. 219, 1865.
1397	1865		170	12	1	3	O Despertador (SC), May 2, ed. 240, 1865.
1398	1865		333	8	2	2	O Despertador (SC), August 8, ed. 268, 1865.
1399	1865		58	23	1	2	O Despertador (SC), December 19, ed. 306, 1865.
							“Aguas”.
1400	1875	PR	308	23	1	2	O Despertador (SC), January 26, ed. 1247, 1875.
1401	1876		313	23	3	1	O Despertador (SC), December 5, ed. 1439, 1876.
1402	1877		131	23	1	3	O Despertador (SC), January 26, ed. 1453, 1877.
1403	1877	RS		23	1	2	O Despertador (SC), February 2, ed. 1457, 1877.
1404	1877		319	23	2	3	O Despertador (SC), February 13, ed. 1460, 1877.
1405	1877	RS		23	1	2	O Despertador (SC), March 6, ed. 1465, 1877.
1406	1877		319	23	2 3	3	O Despertador (SC), March 13, ed. 1467, 1877.
			331			1	
1407	1877		142	23	3	2	O Despertador (SC), April 24, ed. 1478, 1877.
							“Cartas do Sul”
1408	1877		333	23	2	2	O Despertador (SC), May 15, ed. 1484, 1877.
1409	1877	AL PE		23	3	2	O Despertador (SC), May 25, ed. 1487, 1877.
							“Norte do Imperio”
1410	1877	CE BA PB PE RN		23	2	1	O Despertador (SC), December 11, ed. 1544,
						3	1877.
1411	1877		314	23	1	3	O Despertador (SC), December 21, ed. 1547, 1877.
1412	1875		154	6	3	2	O Espirito-Santense, Jornal Politico, Scientifico, Litterario e Noticioso (ES), June 8, ed. 68, 1875.
1413	1875		192	6	4	1	O Espirito-Santense, Jornal Politico, Scientifico, Litterario e Noticioso (ES), December 30, ed. 156, 1875.
1414	1877		319	12	2	1	O Espirito-Santense (ES), February 20, ed. 22, 1877.
1415	1877		174	12	2	1	O Espirito-Santense (ES), February 27, ed. 25, 1877.

1416	1877	CE MA PB RN	23	3	2	O Espirito-Santense (ES), May 5, ed. 54, 1877. “Secca”	
1417	1877	SE	23	2	2	O Espirito-Santense (ES), December 11, ed. 148, 1877. “A Secca em Sergipe”	
1418	1791	RN	23 26	2	3	O Espirito-Santense (ES), April 27, ed. 34, 1881. “Historiographia: Documentos interessantes”.	
1419	1891	BA	333	23	1	3	O Estado da Parahyba : Periodico Politico, Social e Noticioso – Orgão Republicano (PB), March 6, ed. 181, 1891.
1420	1891		298	23	2	1	O Estado da Parahyba : Periodico Politico, Social e Noticioso – Orgão Republicano (PB), March 25, ed. 197, 1891.
1421	1891		189	12	2	5	O Estado da Parahyba : Periodico Politico, Social e Noticioso – Orgão Republicano (PB), July 2, ed. 274, 1891.
1422	1891		47	23	1	1	O Estado da Parahyba : Periodico Politico, Social e Noticioso – Orgão Republicano (PB), July 17, ed. 287, 1891.
1423	1891		47	23	1	2	O Estado da Parahyba : Periodico Politico, Social e Noticioso – Orgão Republicano (PB), October 10, ed. 358, 1891.
1424	1891	BA		23	1	4	O Estado da Parahyba : Periodico Politico, Social e Noticioso – Orgão Republicano (PB), October 20, ed. 365, 1891.
1425	1891	BA		23	2	3	O Estado da Parahyba : Periodico Politico, Social e Noticioso – Orgão Republicano (PB), November 4, ed. 377, 1891.
1426	1891	RN		23	2	4	O Estado da Parahyba : Periodico Politico, Social e Noticioso – Orgão Republicano (PB), November 6, ed. 379, 1891. "Retirantes"
1427	1891	BA		23	1	3	O Estado da Parahyba : Periodico Politico, Social e Noticioso – Orgão Republicano (PB), November 8, ed. 381, 1891.
1428	1891	BA		23	4	1	O Estado de Minas Geraes : Orgão Official (MG), October 19, ed. 230, 1891.
1429	1891	CE PE		23	2	1	O Estado do Ceará: Publicação Diaria (CE), October 13, ed. 343, 1891.
1430	1891	BA		23	2	1	O Estado do Ceará: Publicação Diaria (CE), October 31, ed. 359, 1891.
1431	1897		67	12	1	1	O Estado do Espirito-Santo: Ordem e Progresso (ES), February 28, ed. 50, 1897.
1432	1897		257	12	1	3	O Estado do Espirito-Santo: Ordem e Progresso (ES), July 6, ed. 154, 1897.

1433	1791	BA	23 26	2	3	O Estado do Espirito-Santo: Ordem e Progresso (ES), February 2, ed. 27, 1899. “Le-se no Diario da Bahia”.
1434	1891	CE	23	2	2	O Estado do Espirito Santo: Orgão do Partido Republicano Constructor, March 1, ed. 2445, 1891.
1435	1891		65	23	2	4 O Estado do Espirito Santo: Orgão do Partido Republicano Constructor, April 3, ed. 2471, 1891.
1436	1825	CE RN	23 29	2	2	O Farol Paulistano: Là liberté est une enclum qui userà tous les marteaux (SP), September 26, ed. 49, 1827. “Provincias do Ceara e Rio Grande do Norte”.
1437	1825	CE	23 29	2	1	O Farol Paulistano : Là liberté est une enclum qui userà tous les marteaux (SP), October 10, ed. 53, 1827.
1438	1829		141	12	2	1 O Farol Paulistano : Là liberté est une enclum qui userà tous les marteaux (SP), February 25, ed. 192, 1829.
1439	1829		141	12	2	2 O Farol Paulistano : Là liberté est une enclum qui userà tous les marteaux (SP), March 7, ed. 195, 1829.
1440	1829		141	12	6	1 O Farol Paulistano : Là liberté est une enclum qui userà tous les marteaux (SP), April 4, ed. 203, 1829.
1441	1897		160	12	2	2 O Fluminense (RJ), January 16, ed. 3243, 1897.
1442	1897	RJ	12	2	1	O Fluminense (RJ), January 17, ed. 3244, 1897. “Temporal”
1443	1897		257	12	2	2 O Fluminense (RJ), July 6, ed. 3384, 1897. “Canudos”
1444	1897		257	12	1	1 O Fluminense (RJ), July 11, ed. 3389, 1897.
1445	1853		113	23	1	2 O Globo (RJ), November 16, ed. 197, 1853.
1446	1859	RJ	7 8	1	3	O Globo (RJ), January 7, ed. 55, 1859.
1447	1853	CE	23	4	2	O Grito Nacional (RJ), April 8, ed. 528, 1853. “Para a secca – chuva!”.
1448	1850		311 319	14	2	2 O Guaycuru : Os principios são tudo, os homens pouco (BA), October 5, ed. 25, 1850.
1449	1891	BA	23	4	1	O Horisonte : Orgão Litterario e Noticioso (AL), November 1, ed. 27, 1891.
1450	1850		186	12	2	3 O Itamontano : Periódico Politico, Industrial e Litterario de Minas Geraes (MG), February 6, ed. 239, 1850.
1451	1863		87	23	4	1 O Jequitinhonha (MG), August 1, ed. 128, 1863.
1452	1863		177	23	3	3 O Liberal : Periodico Politico, Judiciario e Litterario (PE), May 26, ed. 44, 1863.
1453	1875		190	6	1	5 O Liberal do Para (PA), June 4, ed. 125, 1875.

1454	1877		311	23	2	1	O Liberal do Para (PA), February 25, ed. 44, 1877.
1455	1877		316	23	2	2	O Liberal do Para (PA), April 8, ed. 78, 1877.
1456	1877		27	23	2	3	O Liberal do Para (PA), April 12, ed. 81, 1877.
1457	1877	MA PA		23	1	1	O Liberal do Para (PA), April 17, ed. 85, 1877.
1458	1825 1853	PE		23	2	2	O Liberal Pernambucano (PE), January 10, ed. 94, 1853. "Correio da Província".
1459	1853	CE		23	3	3	O Liberal Pernambucano (PE), January 17, ed. 100, 1853. "Vapor do Norte".
1460	1853	CE		23	2	3	O Liberal Pernambucano (PE), March 4, ed. 138, 1853. "Vapor do Norte: Ceara".
1461	1853	CE		23	2	4	O Liberal Pernambucano (PE), March 5, ed. 139, 1853. "Fortaleza on February 25, 1853".
1462	1825 1853	CE		23	2	2	O Liberal Pernambucano (PE), March 10, ed. 143, 1853. "A Secca".
1463	1853	PE		23	4	1	O Liberal Pernambucano (PE), March 22, ed. 152, 1853. "Contracto das carnes verdes".
1464	1853	PE		23	4	1	O Liberal Pernambucano (PE), March 23, ed. 153, 1853. "Contracto das carnes verdes".
1465	1853	PE		23	2	4	O Liberal Pernambucano (PE), March 26, ed. 155, 1853. "Ao Publico".
1466	1853	PE	62	23	1	4	O Liberal Pernambucano (PE), March 30, ed. 156, 1853.
1467	1853	PE		23	3	3	O Liberal Pernambucano (PE), April 8, ed. 163, 1853. "Publicação a pedido".
1468	1853	PE		23	4	1	O Liberal Pernambucano (PE), April 9, ed. 164, 1853. "Contrato das carnes verdes".
1469	1853	PE		23	3	1	O Liberal Pernambucano (PE), April 15, ed. 169, 1853. "Ainda o contrato das carnes verdes".
1470	1853	RN		23	3	3	O Liberal Pernambucano (PE), April 22, ed. 175, 1853. "Correspondência do liberal pernambucano".
1471	1853	CE PB PE RN		23	2	3	O Liberal Pernambucano (PE), April 28, ed. 180, 1853. "Correspondência: Ao Publico".
1472	1853		239	23	2	1	O Liberal Pernambucano (PE), May 30, ed. 202, 1853. "Exploração do rio S. Francisco".
1473	1825		68	23	2	1	O Liberal Pernambucano (PE), June 8, ed. 209, 1853. "Continuação das noticias do Norte".
1474	1853		76	23	2	1	O Liberal Pernambucano (PE), June 17, ed. 216, 1853. "Vapor do norte".
1475	1853	CE PE RN		23	2	3	O Liberal Pernambucano (PE), July 16, ed. 239, 1853. "Notícias da Província".

1476	1825 1853	CE		23	2	4	O Liberal Pernambucano (PE), September 14, ed. 285, 1853. "Um deputado de Matto-Grosso, e o Ceara".
1477	1853	PE		23	1	4	O Liberal Pernambucano (PE), September 20, ed. 290, 1853. "Ainda o velho Brasil julgando os negócios de Pernambuco".
1478	1863	MT		23	1	1	O Matto-Grosso (MT), November 1, ed. 40, 1863.
1479	1825	CE		23 29	1	2	O Mercantil (MG), February 24, ed. 55, 1846. "Atraso e decrescimento de nossa populacao e diminuta agricultura".
1480	1850	SP		7 8	3	1	O Mercantil (SP), October 26, ed. 21, 1850.
1481	1850	SP		7 8	5	1	O Mercantil (SP), November 30, ed. 26, 1850.
1482	1863	SC		23	1	1	O Mercantil (SC), December 29, ed. 300, 1863.
1483	1833		221	12	4	1	O Noticiador (RS), March 7, ed. 120, 1833.
1484	1833	MG		23	4	1	O Novo Argos (MG), November 23, ed. 189, 1833.
1485	1833	RJ		23	4	1	O Novo Farol Paulistano (SP), March 8, ed. 155, 1833. "Correspondencia".
1486	1897	AL		7 8	2	1	O Orbe (AL), April 23, ed. 43, 1898.
1487	1877		21	23	2	5	O Paiz (MA), December 25, ed. 291, 1877. "Secca no Para"
1488	1891	CE		23	1	5	O Paiz (RJ), March 1, ed. 3232, 1891.
1489	1891		172	23	3	2	O Paiz (RJ), March 12, ed. 3243, 1891.
1490	1891	BA		23	2	8	O Paiz (RJ), March 31, ed. 3261, 1891.
1491	1891	BA		23	2	5	O Paiz (RJ), April 1, ed. 3262, 1891.
1492	1891		198	12	1	5	O Paiz (RJ), May 12, ed. 3303, 1891.
1493	1891	PE		23	1	6	O Paiz (RJ), June 2, ed. 3324, 1891.
1494	1891	SE		23	3	1	O Paiz (RJ), June 22, ed. 3344, 1891.
1495	1891		46	12	1	4	O Paiz (RJ), June 23, ed. 3345, 1891.
1496	1891	CE		23	2	3	O Paiz (RJ), July 23, ed. 3374, 1891.
1497	1891	PE		23	1	8	O Paiz (RJ), August 11, 3393, 1891.
1498	1891	RN		23	2	3	O Paiz (RJ), August 24, ed. 3406, 1891.
1499	1891	CE PB		23	2	7	O Paiz (RJ), September 20, ed. 3433, 1891.
1500	1891	BA		23	1	3	O Paiz (RJ), September 23, ed. 3436, 1891.
1501	1891	PI		23	1	2	O Paiz (RJ), October 13, ed. 3457, 1891.
1502	1891	BA		23	1	3	O Paiz (RJ), October 14, ed. 3458, 1891.
1503	1891	SE		23	1	4	O Paiz (RJ), October 16, ed. 3460, 1891.
1504	1891	BA	328	12 23	1	7 4	O Paiz (RJ), October 26, ed. 3469, 1891. Both wet and dry Both wet and dry
1505	1891		35	23	2	5	O Paiz (RJ), December 21, ed. 3525, 1891.
1506	1892	RS		23	1	1	O Paiz (RJ), February 2, ed. 3567, 1892.

1507	1892		176	12	1	8	O Paiz (RJ), February 3, ed. 3568, 1892.
1508	1892		284	23	1	3	O Paiz (RJ), February 9, ed. 3574, 1892.
1509	1892	RS		12	4	7	O Paiz (RJ), February 20, ed. 3585, 1892.
1510	1892		288	23	2	4	O Paiz (RJ), March 2, ed. 3596, 1892.
1511	1892	SP		12	2	3	O Paiz (RJ), March 11, ed. 3605, 1892.
1512	1892	PA		7	1	3	O Paiz (RJ), March 27, ed. 3621, 1892.
		PE		8			
1513	1892		332	7	1	3	O Paiz (RJ), June 1, ed. 3683, 1892.
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1514	1892	PE		7	1	4	O Paiz (RJ), June 26, ed. 3708, 1892.
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1515	1892	ES		7	1	3	O Paiz (RJ), December 11, ed. 3875, 1892.
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1516	1892		216	12	1	3	O Paiz (RJ), December 30, ed. 3891, 1892.
1517	1897		18	12	2	5	O Paiz (RJ), February 21, ed. 4524, 1897.
1518	1897		95	12	2	8	O Paiz (RJ), February 27, ed. 4530, 1897.
1519	1897		320	23	2	4	O Paiz (RJ), April 18, ed. 4580, 1897.
1520	1897		180	12	1	2	O Paiz (RJ), June 26, ed. 4649, 1897.
1521	1897		142	12	1	2	O Paiz (RJ), July 17, ed. 4670, 1897.
1522	1897		189	12	2	7	O Paiz (RJ), October 8, ed. 4753, 1897.
			253				"Temporal em Santa Catarina"
1523	1891	BA		23	2	4	O Pharol (MG), October 6, ed. 252, 1891.
1524	1891	BA		23	3	1	O Pharol (MG), October 9, ed. 255, 1891.
1525	1891	RN		23	2	6	O Pharol (MG), October 16, ed. 262, 1891.
1526	1891	BA		23	2	1	O Pharol (MG), October 29, ed. 275, 1891.
1527	1892		213	12	1	4	O Pharol (MG), June 13, ed. 159, 1892.
1528	1897		257	12	1	7	O Pharol (MG), July 6, ed. 78, 1897.
1529	1850	SP		12	1	2	O Piratininga (SP), January 8, ed. 45, 1850.
1530	1891	BA		23	2	3	O Povo (RN), March 15, ed. 11, 1891. "A Fome"
1531	1891	RN		23	2	3	O Povo (RN), March 29, ed. 13, 1891.
1532	1891	BA		23	1 2	1	O Povo (RN), May 31, ed. 18, 1891.
		RN				1	
1533	1891	BA		23	2	4	O Povo (RN), July 26, ed. 21, 1891.
1534	1891		234	12	2	2	O Povo (RN), August 2, ed. 22, 1891.
1535	1891	RN		23	1	1	O Povo (RN), October 18, ed. 33, 1891.
1536	1891	RN		23	1	1	O Povo (RN), November 29, ed. 39, 1891. "A Fome"
1537	1891	RN		23	1	4	O Povo (RN), December 6, ed. 40, 1891.
1538	1892		242	7	1	4	O Povo (RN), February 28, ed. 9, 1892.
				8			
1539	1892		242	7	2	5	O Povo (RN), March 6, ed. 10, 1892.
				8			
1540	1865		9	23	3	2	O Publicador (PB), August 28, ed. 1190, 1866.
				32			"Aos senhores deputados provinciaes da Parahyba".

1541	1833	MA	23	1	2	O Publicador Official (MA), May 11, ed. 158, 1833. “Maranhao: Artigos D’Officio”.	
1542	1833	MG	23 30	3	1	O Recopilador Mineiro (MG), February 22, ed. 106, 1834. “Representacao que o Conselho Geral desta Provincia dirigio aos Poderes Legislativos, e Executivo”.	
1543	1891	BA	23	2	5	O Republicano: Orgão do Partido Republicano (SE), January 15, ed. 5, 1891.	
1544	1891	SE	23	2	5	O Republicano: Orgão do Partido Republicano (SE), February 4, ed. 22, 1891.	
1545	1891	SE	23	2	2	O Republicano: Orgão do Partido Republicano (SE), March 26, ed. 65, 1891.	
1546	1891	SE	23	3	1	O Republicano: Orgão do Partido Republicano (SE), April 7, ed. 72, 1891.	
1547	1891	PB	23	2	4	O Republicano: Orgão do Partido Republicano (SE), April 12, ed. 77, 1891.	
1548	1891	BA	23	2	1	O Republicano: Orgão do Partido Republicano (SE), April 15, ed. 79, 1891.	
1549	1891	SE	23	2	1	O Republicano: Orgão do Partido Republicano (SE), April 18, ed. 82, 1891.	
1550	1891	BA	23	1	5	O Republicano: Orgão do Partido Republicano (SE), April 24, ed. 86, 1891.	
1551	1891	SE	23	3	2	O Republicano: Orgão do Partido Republicano (SE), April 25, ed. 87, 1891.	
1552	1891	PB	23	2	1	O Republicano: Orgão do Partido Republicano (SE), April 26, ed. 88, 1891.	
1553	1891	AL	23	3	1	O Republicano: Orgão do Partido Republicano (SE), April 28, ed. 89, 1891.	
1554	1891		243	6	2	4	O Republicano: Orgão do Partido Republicano (SE), April 29, ed. 90, 1891.
1555	1891	SE	23	2	1	O Republicano: Orgão do Partido Republicano (SE), May 5, ed. 93, 1891.	
1556	1891	SE	23	2	4	O Republicano: Orgão do Partido Republicano (SE), May 6, ed. 94, 1891.	
1557	1891		84	12	2	5	O Republicano: Orgão do Partido Republicano (SE), May 31, ed. 113, 1891.
1558	1853	CE	23	2	3	O Republico (RJ), October 15, ed. 28, 1853. “O governo e o paiz”.	
1559	1850		84	23	1	4	O Rio-Grandense: periodico commercial (RS), February 7, ed. 572, 1850.
1560	1850		282	23	4	2	O Rio-Grandense: periodico commercial (RS), March 5, ed. 583, 1850.
1561	1833		172	23	3	2	O Sete d’Abril (RJ), March 5, ed. 20, 1833. “Correspondencias”.
1562	1833		172	23	1	2	O Sete d’Abril (RJ), May 21, ed. 42, 1833.

1563	1833	RJ		23	4	1	O Sete d'Abril (RJ), November 9, ed. 92, 1833. "Carapucas".
1564	1825	CE		23	4	1	O Spectador Brasileiro (RJ), July 6, ed. 146, 1825. "Rio de Janeiro: Continuação do numero antecedente".
1565	1826		125	14	4	2	O Spectador Brasileiro (RJ), January 16, ed. 224, 1826.
1566	1891	BA		23	1	6	O Tempo (RJ), June 1, ed. 12, 1891.
1567	1891	PB		23	1	6	O Tempo (RJ), June 16, ed. 27, 1891.
1568	1891	RN		23	1	6	O Tempo (RJ), June 17, ed. 28, 1891.
1569	1891	BA		23	1	7	O Tempo (RJ), June 20, ed. 31, 1891.
1570	1891		327	6	1	3	O Tempo (RJ), July 20, ed. 61, 1891.
1571	1891		327	6	1	3	O Tempo (RJ), July 27, ed. 68, 1891.
1572	1891	SE		23	1	4	O Tempo (RJ), September 16, ed. 118, 1891.
1573	1891	BA		23	1	4	O Tempo (RJ), October 5, ed. 137, 1891.
1574	1891	SE		23	1	3	O Tempo (RJ), October 6, ed. 138, 1891.
1575	1891	SE		23	1	4	O Tempo (RJ), October 14, ed. 146, 1891.
1576	1891	PB		23	2	3	O Tempo (RJ), October 25, ed. 157, 1891.
1577	1891		6	23	1	4	O Tempo (RJ), October 27, ed. 159, 1891.
1578	1891	BA		23	1	3	O Tempo (RJ), November 2, ed. 166, 1891.
1579	1891		83	23	1	3	O Tempo (RJ), November 5, ed. 169, 1891.
1580	1891	SE		23	1	4	O Tempo (RJ), December 24, ed. 214, 1891.
1581	1892		284 286	23	2	6	O Tempo (RJ), January 15, ed. 234, 1892.
1582	1892		172	12	2	2	O Tempo (RJ), January 28, ed. 247, 1892. "Chuva"
1583	1892	SE		23	1	3	O Tempo (RJ), February 8, ed. 257, 1892.
1584	1892		281	12	1	3	O Tempo (RJ), March 3, ed. 281, 1892.
1585	1892		250	12	1	5	O Tempo (RJ), March 11, ed. 289, 1892.
1586	1892		281	7	3	1	O Tempo (RJ), March 18, ed. 296, 1892.
1587	1892		314	12	1	3	O Tempo (RJ), July 29, ed. 429, 1892.
1588	1897	AL SE		7 8	3	1	O Trabalho (AL), April 10, ed. 709, 1897.
1589	1897		238	12	3	2	O Trabalho (AL), April 24, ed. 710, 1897.
1590	1826		87	23	1	1	O Universal (MG), June 16, ed. 144, 1826.
1591	1833		172	23	4	1	O Universal (MG), September 2, ed. 923, 1833. "Rio de Janeiro".
1592	1833	MG		23	3	2	O Universal (MG), November 15, ed. 955, 1833. "Comunicado".
1593	1833	MG		23	1	2	O Universal (MG), November 20, ed. 957, 1833. "Interior".
1594	1833		306	23	1	2	O Universal (MG), December 4, ed. 963, 1833.
1595	1833		55 306	23	2	1	O Universal (MG), December 18, ed. 968, 1833.

1596	1833	MG		23	4	1	O Universal (MG), January 22, ed. 982, 1834. "Anno de 1834".
1597	1833	MG		23	3	2	O Universal (MG), February 13, ed. 992, 1834. "Correspondencias".
1598	1833		172	23	1	1	O Verdadeiro Caramuru (RJ), August 14, ed. 23, 1833. "Rio de Janeiro: Os planos d'aqueductos a moderna".
1599	1833	CE		23	3	1	O Verdadeiro Caramuru (RJ), October 23, ed. 38, 1833. "Noticias vindas de Pernambuco ate 30 de Setembro".
1600	1891	BA		23	2	6	Pacotilha (MA), May 18, ed. 135, 1891.
1601	1891	PB		23	2	1	Pacotilha (MA), July 5, ed. 182, 1891.
1602	1891	RN		23	2	5	Pacotilha (MA), July 10, ed. 187, 1891.
1603	1891	PE		23	2	5	Pacotilha (MA), August 19, ed. 227, 1891.
1604	1891	CE		23	3	4	Pacotilha (MA), August 31, ed. 239, 1891.
1605	1891		146	23	3	3	Pacotilha (MA), September 12, ed. 250, 1891.
1606	1891	SE		23	2	4	Pacotilha (MA), October 2, ed. 269, 1891.
1607	1891	BA		23	3	1	Pacotilha (MA), October 9, ed. 275, 1891.
1608	1891		135	23	3	2	Pacotilha (MA), October 15, ed. 280, 1891.
1609	1891	BA		23	2	6	Pacotilha (MA), October 16, ed. 281, 1891.
1610	1891	BA		23	2	5	Pacotilha (MA), October 20, ed. 284, 1891.
1611	1891	SE		23	2	4	Pacotilha (MA), October 21, ed. 285, 1891.
1612	1891	BA		23	2	1	Pacotilha (MA), October 24, ed. 288, 1891.
1613	1891	SE		23	3	1	Pacotilha (MA), October 30, ed. 293, 1891.
1614	1891	RN		23	2	2	Pacotilha (MA), November 2, ed. 295, 1891.
1615	1891	BA		23	3	1	Pacotilha (MA), November 11, ed. 303, 1891.
1616	1892	SP	284	23	2	3	Pacotilha (MA), March 7, ed. 56, 1892.
1617	1892		213	12	2	1	Pacotilha (MA), August 3, ed. 182, 1892.
1618	1897		257	12	2	3	Pacotilha (MA), July 14, ed. 163, 1897.
1619	1897		257	12	3	1	Pacotilha (MA), September 24, ed. 225, 1897.
1620	1897	SP		23	2	5	Pacotilha (MA), October 18, ed. 245, 1897.
1621	1853		150	23	4	1	Pedro II (CE), February 19, ed. 1211, 1853. "Publicação a pedido".
1622	1853		292	23	2	2	Pedro II (CE), March 9, ed. 1216, 1853. "Tauha on February 25, 1853".
1623	1853		117	23	2	2	Pedro II (CE), March 16, ed. 1218, 1853. "Natal on March 13, 1853".
1624	1853		289	23	2	3	Pedro II (CE), March 23, ed. 1220, 1853. "Sobral on March 15, 1853".
1625	1825 1853		145	23	4	2	Pedro II (CE), May 7, ed. 1233, 1853. "Queixeramobim on April 15, 1853".
1626	1853	CE		23	2	1	Pedro II (CE), May 11, ed. 1234, 1853. "Notícias Diversas".
1627	1853		145	23	3	1	Pedro II (CE), May 28, ed. 1239, 1853. "Queixeramobim on May 17, 1853".
1628	1853	CE		23	2	3	Pedro II (CE), June 8, ed. 1242, 1853.

1629	1853		289	23	3	3	Pedro II (CE), July 9, ed. 1251, 1853. “Sobral on June 24, 1853”.
1630	1853		292	23	3	1	Pedro II (CE), July 20, ed. 1254, 1853. “Tauha on June 8, 1853”.
1631	1853		260	23	4	3	Pedro II (CE), July 27, ed. 1256, 1853.
1632	1853		145	23	4	2	Pedro II (CE), July 30, ed. 1257, 1853. “Queixeramobim on July 22, 1853”.
1633	1853	CE		23	1	3	Pedro II (CE), August 10, ed. 1260, 1853.
1634	1853		145	23	3	3	Pedro II (CE), August 27, ed. 1265, 1853. “Queixeramobim on August 16, 1853”.
1635	1853	CE		23	3	3	Pedro II (CE), September 8, ed. 1269, 1853.
1636	1853		145	23	3	1	Pedro II (CE), September 15, ed. 1272, 1853.
1637	1853	CE		23	2	3	Pedro II (CE), September 24, ed. 1276, 1853.
1638	1853	CE		23	1	2	Pedro II (CE), October 1, ed. 1279, 1853.
1639	1853	CE		23	1	1	Pedro II (CE), October 6, ed. 1281, 1853. “Secca”.
1640	1853	CE		23	4	1	Pedro II (CE), October 15, ed. 1285, 1853. “O Ceara e o Sr. Joaquim Vilella”.
1641	1859		260	23	1	4	Pedro II (CE), January 13, ed. 1880, 1859.
1642	1859	RJ		12	3	3	Pedro II (CE), January 22, ed. 1882, 1859.
1643	1863		260	23	3	3	Pedro II (CE), February 25, ed. 45, 1863.
1644	1863	PB		23	2	2	Pedro II (CE), March 1, ed. 49, 1863.
1645	1863	AL	211	12	3	2	Pedro II (CE), May 31, ed. 122, 1863.
			217				
1646	1863		320	8	2	1	Pedro II (CE), June 7, ed. 127, 1863.
1647	1863		200	8	2	1	Pedro II (CE), June 24, ed. 141, 1863.
1648	1877	AL	282	23	1	4	Pedro II (CE), June 14, ed. 46, 1877. “Revista do Sul” Both wet and dry Both wet and dry
		CE					
		PB					
		PE					
		RN					
1649	1891		29	23	1	5	Pequeno Jornal (BA), May 22, ed. 375, 1891.
1650	1891	PB		23	1	5	Pequeno Jornal (BA), July 7, ed. 410, 1891.
1651	1891	BA		23	1	3	Pequeno Jornal (BA), July 23, ed. 424, 1891.
1652	1891	BA		23	1	5	Pequeno Jornal (BA), October 21, ed. 493, 1891.
1653	1891	BA		23	2	1	Pequeno Jornal (BA), December 4, ed. 529, 1891.
1654	1892		105	23	2	4	Pequeno Jornal (BA), February 9, ed. 578, 1892.
1655	1853	CE		23	3	2	Periodico dos Pobres (RJ), April 7, ed. 36, 1853. “Notícias do Norte”.
		RN					
1656	1853	BA		23	2	3	Periodico dos Pobres (RJ), May 10, ed. 49, 1853. “Bahia on April 18”.
1657	1853		172	12	3	3	Periodico dos Pobres (RJ), May 21, ed. 54, 1853.
1658	1853		172	12	1	2	Periodico dos Pobres (RJ), June 18, ed. 64, 1853.
1659	1892		286	23	1	4	Pharol (MG), January 16, ed. 15, 1892.
1660	1892	SP		7	1	5	Pharol (MG), February 8, ed. 38, 1892.
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1661	1865		147	22	22	1	** Província de Pernambuco. Anexos ao Relatório da Presidência apresentado a Assembleia Provincial a 19 de Dezembro de 1878. Anexo N. 4. "Abastecimento d'agua potavel"
1662	1850		178	23	3	2	Publicador Maranhense (MA), April 23, ed. 949, 1850.
1663	1853	PE		23	3	3	Publicador Maranhense (MA), April 13, ed. 1389, 1853.
1664	1859		157	12	2	1	Publicador Maranhense (MA), May 21, ed. 115, 1859.
1665	1859		157	12	3	1	Publicador Maranhense (MA), November 29, ed. 270, 1859.
1666	1863		157	12	2	2	Publicador Maranhense (MA), August 26, ed. 192, 1863. "Correspondencia particular ao publicador maranhense"
1667	1865		190	23	3	5	Publicador Maranhense (MA), July 6, ed. 151, 1865. "Vapor Caxias".
1668	1865	SP		23	1	4	Publicador Maranhense (MA), October 20, ed. 238, 1865. "Continuação das notícias do paquete, São Paulo".
1669	1875		266	23	2	2	Publicador Maranhense (MA), March 16, ed. 61, 1875.
1670	1875		181	6	2	2	Publicador Maranhense (MA), April 10, ed. 81, 1875.
1671	1875		48	6	2	5	Publicador Maranhense (MA), May 4, ed. 101, 1875.
1672	1875		190	6	3	1	Publicador Maranhense (MA), May 8, ed. 104, 1875.
1673	1875		190	6	1	3	Publicador Maranhense (MA), May 13, ed. 108, 1875.
1674	1875		50	6	1	3	Publicador Maranhense (MA), May 20, ed. 114, 1875.
1675	1875		266	23	2	2	Publicador Maranhense (MA), May 26, ed. 119, 1875.
1676	1875		190	6	1	1	Publicador Maranhense (MA), June 8, ed. 129, 1875.
1677	1875		182	6	1	4	Publicador Maranhense (MA), June 10, ed. 131, 1875.
1678	1876	RJ		23	2	3	Publicador Maranhense (MA), January 22, ed. 17, 1876. "Phenomeno Astronomico"
1679	1876	SP		23	1	4	Publicador Maranhense (MA), March 7, ed. 54, 1876.
1680	1876		36	23	2	3	Publicador Maranhense (MA), March 15, ed. 61, 1876.

1681	1876		184	13	2	2	Publicador Maranhense (MA), April 28, ed. 96, 1876. "Amazonas"
1682	1877		324	23 32	2	1	Publicador Maranhense (MA), February 24, ed. 44, 1877.
1683	1877		333	23	2	1	Publicador Maranhense (MA), March 6, ed. 52, 1877.
1684	1877		333	23	2	2	Publicador Maranhense (MA), April 3, ed. 74, 1877.
1685	1825	CE		23 29	1	5	Publicador Maranhense (MA), September 1, ed. 199, 1877. "Uma relíquia do século passado".
1686	1877		42	23	3	2	Publicador Maranhense (MA), October 10, ed. 230, 1877.
1687	1876	ES		22	137	1	** Relatório apresentado a Assembleia Legislativa da Provincia do Espirito-Santo em a 2. Sessão Ordinaria da Vigesima Primeira Legislatura Provincial pelo Presidente desta Provincia Dr. Antonio Joaquim de Miranda Nogueira da Gama, aos 3 de Março de 1877. Victoria, 1877. "Estado financeiro da Provincia"
1688	1876 1877	RS PE	277	23 12	62 63	1	** Relatório com que o Exm. Sr. Desembargador Francisco de Faria Lemos passou a Administração desta província ao Exm. Sr. Dr. João Chaves Campello, segundo Vice-Presidente, no dia 10 de Fevereiro de 1878, Porto Alegre, 1878. "Secca" "Enchente"
1689	1876	PE		23	4	1	** Relatório com que o Exm Sr. Dr. Adelino Antonio de Luna Freire, 1.o Vice-Presidente, passou ao Exmo. Sr. Dr. Adolpho de Barros Cavalcante de Lacerda, presidente effectivo, a administração desta província, a 20 de Maio de 1878. Pernambuco, 1878. "Secca"
1690	1877	PE		23	6	1	** Relatorio com que o Exm. Sr. Dr. Adolpho de Barros Cavalcanti de Lacerda passou ao Exm. Sr. Dr. Adelino Antonio de Luna Freire, primeiro Vice-Presidente, a Administração desta Provincia em 18 de Setembro de 1879. Recife, 1879. "Secca".
1691	1876 1877	PE		23	3	1	** Relatório com que o Exm Sr. Dr. Manoel Clementino Carneiro da Cunha passou a administração desta província ao Exmo Sr. Desembargador Francisco de Assis Oliveira Maciel, a 15 de Novembro de 1877. Pernambuco, 1878. "Secca"
1692	1876		114 121		6	1	** Relatório da repartição de colonisação, Porto Alegre, 1876. "Colonia Monte'Alverne"

1693	1865	RJ	175 297	23	131	1	* Relatório : Ministerio da Guerra (RJ), Relatório da repartição dos negócios da guerra. 1867. “Relatório Geral: Comissão de engenheiros junto as forcas em expedição para a província de Mato Grosso, 1865-1866”
1694	1891		232	6	651	1	* Relatórios do Ministério da Agricultura (RJ), Relatório Apresentado ao Presidente da Republica dos Estados Unidos do Brazil pelo Ministro D’Estado dos Negocios da Agricultura, Commercio e Obras Publicas Barão de Lucena em Junho de 1891. Rio de Janeiro, 1891.
1695	1865		121	23	53	1	* Relatorios dos Presidentes das Provincias Brasileiras : Imperio (RS), Relatório apresentado ao Exm Sr. Vice-Presidente da Província de S. Pedro do Rio Grande do Sul Dr. Antonio Augusto Pereira da Cunha pelo Visconde da Boa-Vista ao passar-lhe a administração da mesma província no dia 16 de abril de 1866, Porto Alegre. “Colonia Nova Petropolis”.
1696	1865	RS		23	20	1	* Relatorios dos Presidentes das Provincias Brasileiras : Imperio (RS), Relatório com que o Bacharel Joao Marcellino de Souza Gonzaga entregou a administração da província de S. Pedro do Rio Grande do Sul ao ILLmo e EXmo Sr. Visconde da Boa-Vista. Rio de Janeiro, 1865. “Cavalhadas”
1697	1875		142	23	36	1	* Relatório dos Presidentes das Provincias Brasileiras : Imperio (RS), Falla Dirigida à Assembléia Legislativa da Província de S. Pedro do Rio Grande do Sul pelo presidente Dr. João Pedro Carvalho de Moraes, em primeira sessão da 16.a Legislatura. Porto Alegre, ed. 00002, 1875.
1698	1891		156	6	48	1	* Relatorios dos Presidentes dos Estados Brasileiros (PA), Relatório com que o capitão-tenente Duarte Huet de Bacellar Pinto Guedes passou a administração do estado do Pará em 24 de Junho de 1891 ao Governador Dr. Lauro Sodré, eleito pelo congresso constituinte em 23 do mesmo, ed. 1.
1699	1833 1853		210	12	75	1	* Relatorios dos Presidentes das Provincias Brasileiras : Imperio (RS), Relatorios com que o conselheiro Joaquim Antao Fernandes Leao entregou a presidência da província de S. Pedro do Rio Grande do Sul ao Exmo Sr. Vice-Presidente Commendador Patricio Correa da Camara. Porto Alegre, 1861. “Relatorio sobre

							diversos trabalhos preparatórios de canalização do rio Mampituba, reconhecimento de seus tributários, e outros trabalhos executados no districto da Conceição do Arroio”
1700	1850		195	12	100	1	* Relatorios dos Presidentes das Provincias Brasileiras : Imperio (RS), Relatorio do presidente da provincia de S. Pedro do Rio Grande do Sul, o Conselheiro José Antonio Pimenta Bueno, na Abertura da Assembléa Legislativa provincial no 1.o de Outubro de 1850, acompanhado do orçamento da receita e despeza para o anno de 1851. Porto Alegre, 1850.
1701	1853		301	23	86	1	* Relatorio dos Trabalhos do Conselho Interino de Governo (BA), Falla que recitou o Exm.o Presidente da Província da Bahia, Dr. Joao Mauricio Wanderley n’abertura da Assembleia Legislativa da mesma província no 1.o de Março de 1853, ed. 00001, Bahia, 1853
1702	1891		189	12	2	1	Republica (SC), June 20, ed. 459, 1891.
1703	1891		189	12	2	1	Republica (SC), June 23, ed. 461, 1891.
1704	1891		189	12	1	1	Republica (SC), June 24, ed. 462, 1891.
1705	1891		333	12	2	3	Republica (SC), August 13, ed. 511, 1891.
1706	1897		192	12	2	3	Republica (SC), February 24, ed. 42, 1897.
1707	1897	PR		23	2	5	Republica (SC), May 27, ed. 108, 1897.
1708	1897		257	12	2	5	Republica (SC), July 23, ed. 150, 1897.
1709	1897		89	12	2	1	Republica (SC), August 20, ed. 176, 1897.
1710	1897	RS		12	1	4	Republica (SC), September 21, ed. 200, 1897.
1711	1897		189	12	1	5	Republica (SC), September 25, ed. 204, 1897. “Temporal”
1712	1897		253	12	1	6	Republica (SC), September 28, ed. 206, 1897. “O Tempo”
1713	1897		8	12	1	5	Republica (SC), October 3, ed. 210, 1897. “O Tempo”
1714	1850		198	12	1	2	Revista Commercial (SP), October 14, ed. 5, 1850.
1715	1850		41	8	2	2	Revista Commercial (SP), October 21, ed. 6, 1850.
1716	1859	RJ		8	2	1	Revista Commercial (SP), ed. 36, 1859.
1717	1859		69	7	1	1	Revista Commercial (SP), ed. 37, 1859.
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1718	1863		225	12	2	2	Revista Commercial (SP), February 5, ed. 64, 1863.
1719	1863		193	12	1	3	Revista Commercial (SP), March 31, ed. 85, 1863.
1720	1865		81	23	1	2	Revista Commercial (SP), December 16, ed. 45, 1865.
				32			

1721	1865		81	23	3	1	Revista Commercial (SP), January 6, ed. 52, 1866. "Itapetininga, 27 de Dezembro de 1865".
1722	1865	SC		23	2	1	Revista Commercial (SP), February 15, ed. 68, 1866. "Transcrição. Assembleia Legislativa Provincial".
1723	1791	CE		23	6	2	Revista de Engenharia (RJ), May 14, ed. 00113-00114-00115-00116, 1885. "Meteorologia: As manchas solares e as secas pelo professor Orville A. Derby".
1724	1791	CE		23	77	1	Revista Trimensal do Instituto do Ceará (CE), ed. 00001-00003, 1º, 2º, 3º e 4º Trimestres, Anno 1, Tomo 1, 1887. "Registro de memoria dos principaes estabelecimentos".
1725	1791	CE		23	13	1	Revista Trimensal do Instituto do Ceará (CE), ed. 00001, 1º Trimestre, 1890. "Luiz da Motta Feo e Torres e seu governo no Ceara".
1726	1791	CE		23	108	1	Revista Trimensal do Instituto do Ceará (CE), ed. 00002-00003, 2º, 3º Trimestres, Anno V, Tomo V, 1891.
1727	1791	CE		23	6	1	Revista Trimensal do Instituto do Ceará (CE), sob a direção do Dr. Guilherme Studart, ed. 00001-00002, 1º e 2º Trimestres, Anno IX, Tomo IX, 1895. "Juizo histórico do senador Pompeu sobre factos do Ceara: Seca e fome de 1825, 1826 e 27".
1728	1791	CE		23	10	1	Revista Trimensal do Instituto do Ceará (CE), sob a direção do Dr. Guilherme Studart, ed. 00001, 1º Trimestre, Anno XII, Tomo XII, 1898. "Descripcao geográfica abreviada da capitania do Ceara pelo coronel de engenheiros Antonio Joze da Silva Paulet".
1729	1791	CE		23	15	1	Revista Trimensal do Instituto do Ceará (CE), sob a direção do Dr. Guilherme Studart, ed. 00003-00004, 3º e 4º Trimestres, Anno XIV, Tomo XIV, 1900. "Ephemerides do Ceara por J. Brigido".
1730	1859		320	23	4	3	Semanario de Avisos Y Conocimientos Utiles (Assunção, PAR), September 10, ed. 286, 1859.
1731	1859		320	23	4	3	Semanario de Avisos Y Conocimientos Utiles (Assunção, PAR), September 17, ed. 287, 1859.
1732	1825	CE		23	2	2	Treze de Maio (PA), June 21, ed. 517, 1845. "Artigo de huma carta de pessoa fidedigna do Ceara".
1733	1825	CE PB RN		23	2	1	Treze de Maio (PA), January 28, ed. 575, 1846.
1734	1877	PA		23	2	1	A Constituição, 1877. February 19, ed. 39.

1735	1896	AM	2 18 19	1	2	A Federação: Órgão do Partido Republicano Federal (AM), 1896. March 21, ed. 423.
1736	1881	AM	18	3	2	Amasonas, 1881a. February 20, ed. 535.
1737	1881	AM	18 3	4	1	Amasonas, 1881b. May 18, ed. 572.
1738	1881	AM	15	3	3	Amasonas, 1881c. June 15, ed. 585.
1739	1892	AM	18 3	3	3	Amasonas, 1892a. September 13, ed. 3555.
1740	1892	AM	18 3	3	3	Amasonas, 1892b. September 15, ed. 3557.
1741	1892	AM	18 3	3	2	Amasonas, 1892c. September 17, 1892, ed. 3559.
1742	1892	AM	18 3	3	1	Amasonas, 1892d. December 4, 1892, ed. 3622.
1743	1899	CE	23 26	220	1	Camara J, 1899. Almanach administrativo, Estatístico, Mercantil, Industrial e Litterario do Estado do Ceará para o anno de 1899. Ceará. (42)
1744	1862	RJ	24 25	1	3	Correio Mercantil, 1862. February 26, ed. 57.
1745	1865	PE	12	2	2	Diario de Pernambuco, 1865a. June 10, ed. 133.
1746	1865	PE	23	2	3	Diario de Pernambuco, 1865b. June 12, ed. 134.
1747	1865	PE	23	8	1	Diario de Pernambuco, 1865c. November 14, ed. 261.
1748	1866	PE	1	8	5	Diario de Pernambuco, 1866a. January 25, ed. 20.
1749	1866	PE	12	1	2	Diario de Pernambuco, 1866b. February 23, ed. 44.
1750	1926	PE	11	4	6	Diario de Pernambuco, 1926. November 2, ed. 253.
1751	1866	RJ	24 25	1	1	Diario do Rio de Janeiro, 1866. January 9, ed. 7.
1752	1896	AM	2 18 19	6	1	Diario Official (AM), 1896. March 1, ed. 656.
1753	1861	AM	9	4	1	Estrella do Amazonas, 1861a. June 12, ed. 551.
1754	1861	AM	9	4	1	Estrella do Amazonas, 1861b. June 15, ed. 552.
1755	1861	AM	9	4	1	Estrella do Amazonas, 1861c. June 19, ed. 553.
1756	1861	AM	9	4	1	Estrella do Amazonas, 1861d. June 22, ed. 554.
1757	1861	AM	9	4	1	Estrella do Amazonas, 1861e. July 6, ed. 558.
1758	1861	AM	9	4	2	Estrella do Amazonas, 1861f. September 25, ed. 581.
1759	1861	AM	9	4	2	Estrella do Amazonas, 1861g. October 5, ed. 584.
1760	1861	AM	9	4	1	Estrella do Amazonas, 1861h. October 19, ed. 587.
1761	1861	AM	9	4	2	Estrella do Amazonas, 1861i. October 30, ed. 590.

1762	1861	AM	9	2	1	Estrella do Amazonas, 1861j. November 20, ed. 596.
1763	1861	AM	24 25	1	2	Estrella do Amazonas, 1861k. November 23, ed. 597.
1764	1862	AM	9	4	1	Estrella do Amazonas, 1862a. January 8, ed. 608.
1765	1862	AM	9	4	2	Estrella do Amazonas, 1862b. January 11, ed. 609.
1766	1862	AM	9	4	2	Estrella do Amazonas, 1862c. January 18, ed. 611.
1767	1862	AM	9	4	1	Estrella do Amazonas, 1862d. June 28, ed. 650.
1768	1876	AM	4	3	4	Jornal do Amazonas, 1876. February 20, ed. 78.
1769	1861	RJ	16 21	1	5	Jornal do Commercio, 1861. December 28, ed. 357.
1770	1925	RJ	11	2	7	Jornal do Commercio, 1925. August 18, ed. 7638.
1771	1926	RJ	11	1	2	Jornal do Commercio, 1926a. January 19, ed. 7772.
1772	1926	RJ	11	2	4	Jornal do Commercio, 1926b. September 29, ed. 7990.
1773	1926	RJ	11	2	2	Jornal do Commercio, 1926c. November 11, ed. 8028.
1774	1865	AM	12	27	1	Lacerda ABCA, 1865. Relatório com que o Exm. Snr. Dr. Adolpho de Barros Cavalcanti de A. Lacerda entregou a administração da província do Amazonas ao ILLM. E Exm. Sr. Tenente Coronel Innocencio Eustaquio Ferreira de Araujo. Recife, Typ. Do Jornal do Recife.
1775	1866	AM	10	49	1	Mello AE, 1866. Relatório com que o Exm. Snr. Dr. Antonio Epaminondas de Mello entregou a administração da província do Amazonas ao Exm. Snr. Dr. Gustavo Adolpho Ramos Ferreira, vice-presidente da mesma, em 24 de Junho de 1866.
1776	1877	CE	23 32	3	4	O Cearense, 1877. December 16, ed. 106.
1777	1851	SP	6 1	1	1	Revista Commercial, 1851. March 17, ed. 27.

Table 2. The 307 Brazilian cities, drainage basins, or regions where historical climate information was found in the BDL are listed below (column 1 is the number for the location listed in column 4 of Table 1). Other specific locations cited in South America are also identified (column 1, numbers 308-334). The state and country abbreviations are defined in the caption to Table 1.

No.	Location	State
1	Acarape	CE
2	Águas Belas	PE
3	Alenquer	PA
4	Amarante	PI
5	Amparo	SP
6	Aracaju	SE
7	Aracati	CE
8	Araranguá	SC
9	Araruna	PB
10	Arroio Garupá	RS
11	Assaré	CE
12	Atibaia	SP
13	Bagé	RS
14	Barra do Rio São Francisco	BA
15	Barra do Sul	SC
16	Barra Mansa	RJ
17	Beberibe	CE
18	Belém	PA
19	Belmonte	BA
20	Benevides	PA
21	Between Bragança and Óbidos	PA
22	Between Foz do Madeira and Serpa/ Rio Amazonas	AM
23	Between Peru and Manaus/Rio Solimões	AM
24	Between Tabatinga and Manaus/Rio Solimões	AM
25	Bonito	MS
26	Botucatu	SP
27	Bragança	PA
28	Brás	SP
29	Brejo Grande	BA
30	Brotas	SP
31	Buíque	PE
32	Cabo Ipojuca	PE
33	Cachoeira	BA
34	Caetité	BA
35	Caicó	RN
36	Caldas	MG
37	Camocim	CE
38	Campanha	MG

39	Campanha Gaucha	RS
40	Campina Grande	PB
41	Campinas	SP
42	Campos dos Goytacazes	RJ
43	Canguçu	RS
44	Canhotinho	PE
45	Capivari	SP
46	Castro	PR
47	Catolé	PB
48	Choró	CE
49	Codó	MA
50	Coroatá	MA
51	Corumbá	MS
52	Crato	CE
53	Cuiabá	MT
54	Curitiba	PR
55	Diamantina	MG
56	Feira de Santana	BA
57	Fernando de Noronha	PE
58	Florianópolis	SC
59	Fortaleza	CE
60	Fortaleza de Macapá	AP
61	Garanhuns	PE
62	Goiania	GO
63	Granito	PE
64	Granja	CE
65	Guarapari	ES
66	Ibiapina	CE
67	Ibiraçu	ES
68	Icó	CE
69	Iguapé	SP
70	Iguatu	CE
71	Ilha das Araras	AM
72	Ilha de Marajó	PA
73	Ilha Grande/Uruguiana	RS
74	Imperatriz	MA
75	Ingazeira	PE
76	Inhamuns	CE
77	Ipu	CE
78	Itabira	MG
79	Itaipava	RJ
80	Itajubá	MG
81	Itapetininga	SP
82	Itú	SP
83	Jacobina	BA
84	Jaguarão	RS

85	Jaguaribe Mirim	CE
86	Jaguaribe	PE
87	Jequitinhonha	MG
88	Juiz de Fora	MG
89	Lages	SC
90	Lago Grande/Vila Franca	PA
91	Lagoa da Manguaba	AL
92	Lagoa do Norte	AL
93	Lagoa Rodrigo de Freitas	RJ
94	Lagoa Vermelha	RS
95	Lambari	MG
96	Lençóis Paulista	SP
97	Leopoldina	MG
98	Limeira	SP
99	Limoeiro do Norte	CE
100	Lorena	SP
101	Macaé	RJ
102	Maceió	AL
103	Magé	RJ
104	Manga	MG
105	Maragogipe	BA
106	Mato Grosso	MT
107	Meruoca	CE
108	Mina Gongo Soco	MG
109	Minas Novas	MG
110	MisSão Velha	CE
111	Mogy das Cruzes	SP
112	Moju	PA
113	Monte Alto	BA
114	Monte Alverne	RS
115	Monte Santo	BA
116	Morretes	PR
117	Natal	RN
118	Nazaré	BA
119	Niteroi	RJ
120	Nova Friburgo	RJ
121	Nova Petrópolis	RS
122	Oeiras	PI
123	Olinda	PE
124	Ouricuri	PE
125	Ouro Preto	MG
126	Palmeiras	BA
127	Paraibuna	SP
128	Parati	RJ
129	Passa Três	RJ
130	Pedra das Abelhas/Rio Madeira	AM

131	Pelotas	RS
132	Pernambuco	PE
133	Petrolina	PE
134	Petrópolis	RJ
135	Pindaré	MA
136	Piracuruca	PI
137	Pirassununga	SP
138	Piripiri	PI
139	Poço da Panela	PE
140	Ponte do Sapucaí	MG
141	Ponte Rio Cubatão	SP
142	Porto Alegre	RS
143	Porto Feliz	SP
144	Quixada	CE
145	Quixeramobim	CE
146	Raimundo Nonato	PI
147	Recife	PE
148	Recôncavo Baiano	BA
149	Resende	RJ
150	Riacho do Sangue	CE
151	Ribeirão Bonito	SP
152	Ribeirão das Lajes	RJ
153	Rio Abaeté	MG
154	Rio Acaraú	CE
155	Rio Açu	RN
156	Rio Amazonas	AM
157	Rio Amazonas	PA
158	Rio Baependi	MG
159	Rio Beberibe	PE
160	Rio Bingen	RJ
161	Rio Cambaí	RS
162	Rio Capibaribe	PE
163	Rio Carangola	RJ
164	Rio Ceará-Mirim	RN
165	Rio Claro	RJ
166	Rio Corrente-Rio Mundaú	PE
167	Rio Cubatão	SP
168	Rio Cubatão	SC
169	Rio Cucuí	AM
170	Rio Cuiabá	MT
171	Rio de Contas	BA
172	Rio de Janeiro	RJ
173	Rio do Bonga	RJ
174	Rio Doce	ES
175	Rio dos Bois	GO
176	Rio Dourado	RJ

177	Rio Formoso	PE
178	Rio Grande	RS
179	Rio Grande/Niteroi	RJ
180	Rio Guaíba	RS
181	Rio Guamá	PA
182	Rio Gurupi	MA
183	Rio Ibirapuitã	RS
184	Rio Ica	AM
185	Rio Iguatemi	MS
186	Rio Ipiranga	SP
187	Rio Ipojuca	PE
188	Rio Itabapoana	ES
189	Rio Itajaí	SC
190	Rio Itapecuru	MA
191	Rio Itapemirim	ES
192	Rio Itapicuru	BA
193	Rio Itapitanguí	SP
194	Rio Ivaí	PR
195	Rio Jacui	RS
196	Rio Jacui	SP
197	Rio Jacupiranga	SP
198	Rio Jaguarão	RS
199	Rio Jaguaribe	CE
200	Rio Jaguaripe	BA
201	Rio Jaibaras	CE
202	Rio Japaratuba	SE
203	Rio Jequitinhonha	BA
204	Rio Jequitinhonha	MG
205	Rio Jurubatuba	SP
206	Rio Macaé	RJ
207	Rio Madeira	AM
208	Rio Madeira	RO
209	Rio Mamanguape	PB
210	Rio Mampituba	RS
211	Rio Mundaú	AL
212	Rio Muriaé	RJ
213	Rio Negro	AM
214	Rio Pará	MG
215	Rio Pará	PA
216	Rio Paraguaçu	BA
217	Rio Paraíba	AL
218	Rio Paraíba	PB
219	Rio Paraíba do Sul	RJ
220	Rio Paraíba do Sul	SP
221	Rio Paraíba do Sul/Campos	RJ
222	Rio Paraíba do Sul/Pindamonhangaba	SP

223	Rio Paraíba do Sul/São Fidelis	RJ
224	Rio Paraibuna	MG
225	Rio Paraitinga	SP
226	Rio Paraná	PR
227	Rio Pardo	RS
228	Rio Piabanha	RJ
229	Rio Pindaré	MA
230	Rio Pinheiros	SP
231	Rio Pirai	RJ
232	Rio Piranji	CE
233	Rio Purus	AM
234	Rio Ribeira do Iguapé	SP
235	Rio Salgado	CE
236	Rio Santa Maria	RS
237	Rio Santana	SE
238	Rio São Francisco	AL
239	Rio São Francisco	BA
240	Rio São Francisco/Propiá	SE
241	Rio Sergi	BA
242	Rio Seridó	RN
243	Rio Sitiá	CE
244	Rio Solimões	AM
245	Rio Tamanduteí	SP
246	Rio Tapacurá	PE
247	Rio Taquari	RS
248	Rio Taquaruçu	MG
249	Rio Tocantins	PA
250	Rio Tietê	SP
251	Rio Tracunhaém	PE
252	Rio Trairi	RN
253	Rio Tubarão	SC
254	Rio Una	PE
255	Rio Upanema	RN
256	Rio Vacaí	RS
257	Rio Vaza-Barris	BA
258	Rio Vermelho	GO
259	Sabará	MG
260	Saboeiro	CE
261	Santa Cruz do Rio Pardo	SP
262	Santa Luzia	BA
263	Santa Quitéria	CE
264	Santa Rita do Passa Quatro	SP
265	Santa Vitória do Palmar	RS
266	Santana do Livramento	RS
267	Santo Amaro	BA
268	Santo Antônio da Cachoeira	SP

269	Santo Antônio de Pádua	RJ
270	Santos	SP
271	São Bento	MA
272	São Félix	BA
273	São Gabriel	RS
274	São João do Príncipe	ES
275	São José do Belmonte	PE
276	São José do Ribeirão	RJ
277	São Leopoldo	RS
278	São Luiz da Paraitinga	SP
279	São Mateus	CE
280	São Mateus	ES
281	São Paulo	SP
282	São Pedro do Sul	RS
283	Serro	MG
284	Sertão Baiano	BA
285	Sertão Ceará	CE
286	Sertão Minas Gerais	MG
287	Sertão Paraíba	PB
288	Sertão Rio Grande do Norte	RN
289	Sobral	CE
290	Sorocaba	SP
291	Surubim	PE
292	Tauá	CE
293	Tefê	AM
294	Teresina	PI
295	Tocantins	TO
296	Ubatuba	SP
297	Uberaba	MG
298	Umbuzeiro	PB
299	Uruburetama	CE
300	Vale do São Francisco	BA
301	Valença	BA
302	Valença	RJ
303	Vassouras	RJ
304	Viana	MA
305	Viçosa	MG
306	Vila do Príncipe	MG
307	Vitoria	ES

No.	Location	Country
308	Argentina	AR
309	Asuncion	PY
310	Bolivia	BO
311	Buenos Aires	AR

312	Chile	CL
313	Colonia Esperanza	AR
314	Cordoba	AR
315	Corrientes	AR
316	Durazno	UY
317	Entre Rios	AR
318	Mendoza	AR
319	Montevideo	UY
320	Paraguay	PY
321	Peru	PE
322	Río Aji	AR
323	Río Bermejo	AR
324	Río de La Plata	AR
325	Río Dulce	AR
326	Río Paraguay	PY
327	Río Paraná	AR
328	Río Uruguay	UY
329	Salta	AR
330	San Luis	AR
331	Santa Fe	AR
332	Santiago	CL
333	Uruguay	UY
334	Valparaiso	CL

Table 3. The sources for citations to dry and wet conditions are summarized by state in Brazil, followed by the few available reports from other South American countries (sources numbered sequentially in Table 1, column 1). The full bibliographic citations for the sources are also listed by number in Table 1 (column 8, including the specific locations, when known).

States	Sources
Alagoas, dry	101, 545, 560, 563, 564, 927, 1128, 1132, 1200, 1226, 1263, 1387, 1409, 1553, 1648
Alagoas, wet	275, 276, 323, 365, 1311, 1486, 1588, 1589, 1645
Amapá, dry	
Amapá, wet	991
Amazonas, dry	18, 452, 454, 708, 742, 858, 913, 1052, 1058, 1215, 1681, 1735, 1736, 1737, 1738, 1739, 1740, 1741, 1742, 1752, 1753, 1754, 1755, 1756, 1757, 1758, 1759, 1760, 1761, 1762, 1763, 1764, 1765, 1766, 1767, 1773, 1774
Amazonas, wet	102, 116, 179, 259, 277, 321, 389, 390, 391, 392, 397, 443, 609, 641, 642, 643, 695, 699, 737, 738, 816, 903, 1021, 1179, 1192, 1210, 1310, 1359, 1389, 1390, 1527, 1617, 1698
Bahia, dry	16, 24, 25, 27, 31, 34, 35, 91, 105, 114, 141, 160, 165, 178, 187, 196, 205, 212, 215, 218, 243, 245, 272, 297, 310, 315, 320, 349, 350, 360, 364, 367, 384, 385, 395, 401, 403, 407, 417, 418, 437, 442, 486, 491, 544, 559, 568, 585, 594, 664, 688, 719, 735, 749, 750, 768, 770, 774, 775, 833, 834, 835, 836, 837, 838, 839, 843, 875, 879, 881, 883, 886, 900, 901, 902, 908, 912, 924, 925, 926, 944, 945, 946, 947, 948, 949, 950, 951, 952, 954, 993, 999, 1000, 1001, 1002, 1009, 1015, 1016, 1017, 1018, 1019, 1035, 1036, 1037, 1039, 1063, 1128, 1132, 1143, 1147, 1148, 1149, 1150, 1152, 1153, 1160, 1161, 1162, 1164, 1165, 1166, 1168, 1169, 1172, 1173, 1174, 1197, 1201, 1209, 1225, 1231, 1236, 1238, 1240, 1241, 1248, 1250, 1253, 1261, 1281, 1283, 1334, 1336, 1357, 1358, 1365, 1377, 1378, 1379, 1381, 1382, 1410, 1419, 1424, 1425, 1427, 1428, 1430, 1433, 1445, 1449, 1472, 1490, 1491, 1500, 1502, 1504, 1508, 1523, 1524, 1526, 1530, 1532, 1533, 1543, 1548, 1550, 1566, 1569, 1573, 1578, 1579, 1600, 1607, 1609, 1610, 1612, 1615, 1649, 1651, 1652, 1653, 1654, 1656, 1701
Bahia, wet	103, 193, 265, 286, 288, 319, 361, 405, 455, 457, 468, 476, 630, 652, 668, 682, 705, 714, 720, 725, 734, 736, 763, 808, 841, 842, 844, 863, 864, 865, 866, 867, 967, 1025, 1026, 1030, 1040, 1049, 1063, 1064, 1065, 1088, 1090, 1178, 1185, 1256, 1274, 1275, 1333, 1337, 1368, 1383, 1413, 1432, 1443, 1444, 1516, 1528, 1581, 1616, 1618, 1619, 1647, 1706, 1708
Ceará, dry	1, 2, 3, 4, 19, 41, 47, 60, 82, 91, 100, 120, 127, 132, 134, 140, 141, 146, 150, 151, 153, 154, 157, 158, 159, 161, 166, 169, 170, 171, 172, 178, 185, 187, 188, 206, 207, 209, 210, 211, 212, 213, 214, 216, 217, 219, 225, 226, 227, 228, 229, 230, 231, 235, 240, 241, 266, 316, 342, 372, 399, 421, 424, 432, 438, 439, 477, 507, 509, 510, 514, 515, 517, 518, 521, 524, 525, 526, 528, 532, 537, 538, 540, 542, 543, 547, 548,

	549, 550, 551, 552, 554, 555, 556, 559, 561, 565, 566, 568, 571, 572, 573, 593, 595, 630, 651, 660, 662, 683, 687, 689, 690, 691, 706, 707, 718, 743, 776, 777, 809, 810, 817, 818, 819, 820, 821, 822, 823, 827, 828, 829, 840, 891, 894, 909, 910, 915, 916, 918, 919, 920, 923, 942, 943, 983, 984, 995, 1003, 1004, 1005, 1006, 1008, 1062, 1078, 1097, 1098, 1099, 1103, 1106, 1109, 1111, 1113, 1115, 1116, 1117, 1119, 1120, 1121, 1122, 1123, 1126, 1128, 1132, 1135, 1139, 1146, 1163, 1197, 1213, 1214, 1249, 1254, 1264, 1268, 1269, 1271, 1273, 1274, 1276, 1277, 1278, 1280, 1282, 1284, 1285, 1286, 1287, 1288, 1289, 1290, 1291, 1292, 1294, 1295, 1296, 1297, 1299, 1300, 1301, 1302, 1303, 1304, 1305, 1306, 1307, 1312, 1314, 1317, 1318, 1319, 1320, 1322, 1323, 1324, 1328, 1330, 1331, 1332, 1334, 1335, 1338, 1339, 1340, 1341, 1342, 1343, 1344, 1345, 1346, 1347, 1348, 1349, 1350, 1351, 1352, 1353, 1354, 1355, 1356, 1363, 1364, 1372, 1373, 1378, 1379, 1410, 1416, 1429, 1434, 1436, 1437, 1447, 1459, 1460, 1461, 1462, 1471, 1473, 1474, 1475, 1476, 1479, 1488, 1496, 1499, 1558, 1564, 1599, 1604, 1621, 1622, 1624, 1625, 1626, 1627, 1628, 1629, 1630, 1631, 1632, 1633, 1634, 1635, 1636, 1637, 1638, 1639, 1640, 1641, 1648, 1655, 1685, 1723, 1724, 1725, 1726, 1727, 1728, 1729, 1732, 1733, 1743, 1775
Ceará, wet	39, 67, 68, 69, 72, 118, 119, 121, 122, 123, 124, 135, 276, 318, 394, 467, 469, 470, 600, 606, 608, 614, 628, 634, 646, 677, 694, 716, 744, 747, 748, 792, 860, 1061, 1062, 1255, 1308, 1309, 1326, 1328, 1412, 1554, 1643, 1671, 1694
Espírito, Santo, dry	571, 576, 877, 1435, 1687
Espírito, Santo, wet	180, 181, 233, 247, 1270, 1374, 1415, 1431, 1515
Goiás, dry	1466, 1693
Goiás, wet	317, 420, 610, 676, 981, 1392
Maranhão, dry	19, 22, 61, 91, 141, 144, 212, 216, 225, 423, 424, 523, 644, 685, 908, 950, 984, 1119, 1122, 1123, 1127, 1283, 1295, 1298, 1416, 1457, 1541, 1608, 1667
Maranhão, wet	95, 96, 98, 276, 472, 473, 601, 649, 717, 861, 1061, 1308, 1327, 1453, 1672, 1673, 1674, 1676, 1677
Mato Grosso, dry	1028, 1138, 1478
Mato Grosso, wet	59, 172, 183, 291, 456, 703, 1028, 1048, 1397
Mato Grosso, do, Sul, dry	58, 558, 603
Mato Grosso, do, Sul, wet	448
Minas Gerais, dry	12, 13, 14, 63, 142, 148, 156, 310, 311, 313, 314, 320, 393, 417, 478, 480, 481, 489, 550, 696, 826, 970, 976, 977, 978, 1010, 1069, 1072, 1076, 1081, 1195, 1222, 1316, 1321, 1484, 1542, 1590, 1592, 1593, 1594, 1595, 1596, 1597, 1680, 1693
Minas Gerais, wet	43, 137, 163, 164, 248, 249, 267, 406, 463, 760, 1018, 1083, 1140, 1186, 1223, 1224, 1233, 1451, 1518, 1565, 1581, 1659
Pará, dry	21, 23, 167, 380, 566, 1123, 1135, 1137, 1211, 1212, 1213, 1214, 1215, 1295, 1456, 1457, 1487, 1734

Pará, wet	28, 93, 97, 245, 253, 254, 256, 257, 260, 368, 469, 647, 648, 670, 715, 782, 814, 815, 816, 858, 860, 1027, 1058, 1060, 1388, 1391, 1512, 1517, 1664, 1665, 1666, 1670
Paraíba, dry	1, 2, 4, 19, 47, 49, 145, 146, 147, 150, 152, 153, 155, 162, 187, 188, 227, 266, 388, 398, 432, 434, 435, 439, 485, 505, 515, 521, 524, 525, 526, 532, 540, 541, 543, 547, 550, 552, 554, 561, 564, 565, 566, 569, 571, 572, 590, 591, 596, 740, 769, 771, 812, 824, 884, 885, 893, 916, 920, 931, 932, 943, 981, 984, 990, 1078, 1097, 1102, 1111, 1115, 1116, 1122, 1123, 1126, 1128, 1132, 1135, 1163, 1170, 1207, 1212, 1213, 1214, 1262, 1266, 1267, 1268, 1269, 1271, 1313, 1410, 1416, 1420, 1422, 1423, 1471, 1499, 1540, 1547, 1552, 1567, 1576, 1601, 1648, 1650, 1733
Paraíba, wet	62, 71, 75, 85, 92, 94, 256, 467, 1176, 1245, 1247, 1644
Paraná, dry	125, 129, 167, 191, 258, 262, 282, 369, 370, 371, 377, 499, 500, 1221, 1393, 1400, 1707
Paraná, wet	128, 174, 244, 295, 400, 793, 937, 1177, 1232, 1265, 1495
Pernambuco, dry	1, 2, 15, 19, 26, 33, 47, 86, 90, 91, 112, 113, 138, 141, 146, 149, 184, 187, 189, 212, 215, 266, 286, 315, 386, 418, 419, 422, 426, 427, 428, 429, 430, 431, 432, 433, 436, 440, 441, 453, 461, 492, 496, 501, 513, 519, 520, 522, 524, 527, 529, 530, 531, 534, 535, 536, 538, 539, 546, 550, 553, 554, 556, 557, 559, 560, 561, 562, 564, 565, 566, 569, 571, 573, 574, 575, 576, 578, 581, 582, 583, 584, 586, 587, 588, 589, 592, 631, 632, 633, 635, 741, 809, 811, 831, 845, 876, 878, 895, 908, 939, 942, 943, 984, 990, 998, 1001, 1053, 1078, 1116, 1117, 1122, 1123, 1126, 1128, 1132, 1135, 1145, 1158, 1197, 1219, 1271, 1272, 1279, 1285, 1293, 1315, 1334, 1409, 1410, 1429, 1458, 1463, 1464, 1465, 1466, 1467, 1468, 1469, 1471, 1475, 1477, 1493, 1497, 1603, 1648, 1661, 1663, 1688, 1689, 1690, 1691, 1745, 1746, 1747, 1748, 1749, 1750
Pernambuco, wet	5, 6, 73, 76, 89, 130, 233, 256, 414, 444, 474, 611, 612, 615, 627, 713, 856, 857, 859, 880, 904, 906, 966, 1041, 1057, 1061, 1159, 1194, 1325, 1361, 1384, 1452, 1512, 1514
Piauí, dry	19, 22, 45, 46, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 91, 141, 383, 387, 483, 550, 554, 556, 566, 634, 663, 667, 809, 896, 908, 940, 941, 1066, 1122, 1123, 1126, 1132, 1501, 1605
Piauí, wet	117, 118, 693
Rio de Janeiro, dry	10, 11, 20, 167, 194, 204, 263, 264, 284, 298, 299, 300, 301, 304, 305, 306, 307, 308, 310, 373, 374, 375, 417, 418, 478, 479, 482, 484, 490, 653, 654, 655, 671, 673, 674, 675, 679, 680, 681, 721, 733, 756, 757, 825, 852, 887, 911, 930, 973, 974, 975, 979, 988, 992, 1066, 1067, 1068, 1069, 1070, 1071, 1074, 1076, 1196, 1257, 1258, 1485, 1489, 1561, 1562, 1563, 1591, 1598, 1678, 1686, 1693, 1744, 1751, 1768, 1769, 1770, 1771, 1772
Rio de Janeiro, wet	64, 70, 80, 83, 137, 139, 173, 176, 182, 197, 198, 199, 208, 220, 221, 222, 223, 224, 234, 236, 237, 239, 242, 250, 251, 267, 268, 269, 270, 274, 302, 303, 415, 416, 616, 638, 684, 692, 722, 723, 724, 725, 726,

	727, 728, 745, 759, 761, 762, 764, 786, 790, 794, 798, 799, 800, 804, 805, 806, 807, 813, 872, 969, 971, 982, 985, 1011, 1012, 1013, 1014, 1022, 1023, 1024, 1031, 1032, 1034, 1046, 1047, 1050, 1051, 1077, 1079, 1080, 1082, 1092, 1096, 1133, 1156, 1243, 1287, 1371, 1373, 1374, 1375, 1376, 1386, 1441, 1442, 1446, 1483, 1507, 1582, 1642, 1657, 1658, 1716
Rio Grande do, Norte, dry	1, 2, 4, 17, 19, 47, 107, 111, 131, 146, 150, 161, 188, 207, 227, 287, 290, 312, 331, 384, 410, 423, 424, 425, 432, 439, 521, 524, 525, 526, 532, 535, 540, 542, 543, 547, 550, 551, 552, 561, 565, 566, 569, 572, 573, 590, 639, 686, 702, 739, 740, 769, 774, 778, 823, 840, 847, 848, 878, 888, 890, 897, 916, 933, 943, 945, 956, 984, 995, 1007, 1078, 1116, 1121, 1122, 1123, 1126, 1132, 1135, 1163, 1170, 1198, 1212, 1213, 1214, 1216, 1217, 1218, 1238, 1271, 1288, 1363, 1410, 1416, 1418, 1426, 1436, 1470, 1471, 1475, 1498, 1505, 1510, 1525, 1531, 1532, 1535, 1536, 1537, 1568, 1602, 1614, 1623, 1648, 1655, 1733
Rio Grande do, Norte, wet	255, 447, 1061, 1246, 1326, 1538, 1539
Rio Grande do, Sul, dry	9, 19, 40, 42, 84, 99, 133, 137, 183, 190, 191, 192, 202, 246, 278, 280, 281, 283, 285, 289, 296, 377, 413, 449, 450, 465, 466, 471, 497, 499, 500, 502, 504, 505, 506, 508, 511, 512, 516, 524, 580, 626, 645, 672, 698, 700, 704, 709, 710, 711, 712, 751, 797, 830, 846, 850, 853, 854, 855, 914, 917, 938, 987, 1045, 1054, 1055, 1056, 1059, 1082, 1085, 1086, 1089, 1091, 1093, 1094, 1095, 1100, 1102, 1104, 1105, 1108, 1112, 1114, 1116, 1118, 1120, 1122, 1144, 1145, 1181, 1187, 1190, 1191, 1244, 1260, 1275, 1329, 1360, 1380, 1393, 1402, 1403, 1405, 1407, 1506, 1559, 1560, 1662, 1669, 1675, 1688, 1692, 1695, 1696, 1697
Rio Grande do, Sul, wet	7, 29, 30, 74, 126, 136, 186, 203, 279, 294, 462, 464, 488, 533, 567, 568, 570, 579, 605, 613, 659, 731, 758, 765, 766, 767, 796, 870, 873, 882, 907, 928, 980, 1029, 1042, 1124, 1125, 1128, 1129, 1131, 1136, 1155, 1193, 1199, 1227, 1370, 1492, 1509, 1520, 1521, 1557, 1648, 1688, 1699, 1700, 1710, 1714
Roraima, dry	23, 189
Roraima, wet	
Santa Catarina, dry	8, 9, 697, 1393, 1394, 1399, 1482, 1722
Santa Catarina, wet	36, 81, 108, 110, 666, 801, 802, 889, 934, 953, 968, 1167, 1202, 1203, 1204, 1205, 1206, 1208, 1395, 1396, 1421, 1522, 1702, 1703, 1704, 1709, 1711, 1712, 1713
São Paulo dry	78, 143, 168, 324, 325, 327, 328, 329, 330, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 343, 356, 357, 358, 359, 487, 493, 495, 617, 618, 619, 620, 621, 622, 623, 624, 625, 656, 746, 753, 754, 755, 905, 1073, 1620, 1668, 1679, 1720, 1721, 1776
São Paulo wet	38, 65, 66, 78, 87, 108, 109, 115, 200, 201, 238, 252, 267, 271, 273, 322, 344, 346, 351, 352, 353, 354, 355, 402, 404, 408, 445, 446, 515, 636, 637, 640, 669, 678, 730, 772, 780, 869, 986, 994, 996, 997, 1020, 1033, 1038, 1044, 1104, 1110, 1157, 1175, 1237, 1242, 1243, 1259,

Sergipe, dry	1366, 1367, 1438, 1439, 1440, 1450, 1480, 1481, 1511, 1529, 1534, 1584, 1585, 1586, 1616, 1660, 1715, 1717, 1718, 1719
Sergipe, wet	37, 44, 91, 106, 141, 188, 326, 366, 381, 384, 396, 410, 562, 577, 594, 665, 898, 899, 908, 921, 922, 923, 929, 1132, 1151, 1154, 1162, 1234, 1239, 1417, 1494, 1503, 1544, 1545, 1546, 1549, 1551, 1555, 1556, 1572, 1574, 1575, 1577, 1580, 1583, 1606, 1611, 1613
Tocantins, dry	44, 79, 177, 259, 362, 363, 1107, 1385, 1588
Tocantins, wet	309

South America countries	Sources
Argentina, dry	261, 376, 412, 451, 494, 503, 598, 602, 607, 629, 650, 752, 779, 781, 783, 785, 787, 788, 803, 958, 960, 962, 1043, 1101, 1141, 1180, 1182, 1183, 1400, 1401, 1406, 1411, 1454, 1682
Argentina, wet	88, 175, 195, 232, 345, 347, 348, 382, 409, 597, 658, 660, 661, 729, 773, 784, 791, 795, 862, 868, 871, 892, 936, 961, 972, 1075, 1130, 1188, 1189, 1229, 1230, 1251, 1252, 1369, 1448, 1570, 1571, 1587
Bolivia, dry	604, 964, 1220
Bolivia, wet	
Chile, dry	
Chile, wet	599, 935, 1171, 1235, 1513
Paraguay, dry	475, 965, 1519, 1730, 1731
Paraguay, wet	657, 661, 701, 1134, 1229, 1646
Peru, dry	789, 832, 963
Peru, wet	
Uruguay, dry	104, 378, 379, 411, 449, 498, 874, 955, 957, 959, 1084, 1087, 1090, 1103, 1184, 1404, 1406, 1414, 1419, 1455, 1683, 1684
Uruguay, wet	32, 77, 292, 293, 458, 459, 460, 661, 732, 791, 795, 849, 851, 1137, 1189, 1228, 1229, 1362, 1398, 1408, 1448, 1504, 1705

Table 4. The references to dry or wet conditions during the tree-ring reconstructed drought extremes in the eastern Amazon are listed by year. These references are counted and plotted by location in Figure 2 for both drought or wetness, but most sources referred to dry conditions in northern Brazil during reconstructed drought years. The bibliographic sources are numbered and correspond to the sequence numbers listed for all citations in Table 1, column 1. Only one historical source was found for the reconstructed wet season drought of 1795. Note that a single source may have cited several locations.

Dry Years	Sources
1791, dry	1, 2, 4, 47, 91, 127, 131, 141, 145, 146, 147, 149, 157, 171, 266, 572, 573, 691, 809, 810, 811, 908, 909, 910, 984, 1139, 1163, 1197, 1198, 1268, 1269, 1305, 1307, 1334, 1350, 1351, 1352, 1418, 1433, 1723, 1724, 1725, 1726, 1727, 1728, 1729
1791, wet	
1795, dry	1062
1795, wet	
1804, dry	1, 990
1804, wet	
1825, dry	1, 2, 3, 4, 60, 61, 132, 140, 146, 147, 150, 153, 154, 155, 157, 159, 161, 162, 211, 266, 316, 421, 440, 572, 671, 689, 690, 691, 818, 819, 820, 821, 822, 823, 824, 827, 981, 983, 1003, 1006, 1272, 1273, 1274, 1276, 1280, 1290, 1294, 1295, 1304, 1305, 1306, 1307, 1312, 1324, 1328, 1330, 1331, 1334, 1335, 1336, 1338, 1339, 1340, 1341, 1342, 1343, 1344, 1345, 1346, 1347, 1348, 1349, 1351, 1353, 1354, 1355, 1356, 1364, 1387, 1436, 1437, 1458, 1462, 1473, 1476, 1479, 1564, 1625, 1685, 1732, 1733
1825, wet	701
1826, dry	1, 151, 152, 817, 825, 826, 827, 828, 829, 830, 1590
1826, wet	1565
1833, dry	1, 2, 10, 11, 12, 13, 14, 15, 61, 137, 138, 142, 148, 156, 166, 298, 299, 300, 301, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 320, 417, 418, 672, 673, 674, 675, 696, 733, 970, 973, 974, 975, 976, 977, 978, 979, 1257, 1258, 1351, 1484, 1485, 1541, 1542, 1561, 1562, 1563, 1591, 1592, 1593, 1594, 1595, 1596, 1597, 1598, 1599
1833, wet	137, 139, 173, 197, 198, 199, 232, 236, 302, 303, 415, 416, 727, 969, 971, 972, 982, 985, 1012, 1046, 1371, 1483, 1699
1839, dry	419
1839, wet	317, 318, 420, 676, 677, 980, 981, 1392
1853, dry	134, 158, 170, 204, 205, 206, 207, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 225, 226, 227, 228, 229, 230, 231, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 683, 685, 686, 687, 688, 742, 992, 993, 995, 998, 999, 1000, 1001, 1002, 1004, 1005, 1007, 1008, 1009, 1010, 1277, 1278, 1279, 1280, 1281, 1282, 1283, 1284, 1285, 1286, 1287, 1288, 1289, 1291, 1292, 1293, 1294, 1295, 1296, 1297, 1298, 1299, 1300, 1301, 1302, 1303, 1363, 1365, 1445, 1447, 1458, 1459, 1460, 1461, 1462, 1463, 1464, 1465, 1466, 1467, 1468, 1469, 1470, 1471, 1472, 1474, 1475, 1476, 1477, 1558, 1621, 1622, 1623, 1624, 1625, 1626, 1627, 1628, 1629, 1630, 1631, 1632, 1633, 1634, 1635, 1636, 1637, 1638, 1639, 1640, 1655, 1656, 1663, 1701
1853, wet	208, 220, 221, 222, 223, 224, 684, 996, 997, 1011, 1287, 1657, 1658, 1699

1865, dry	1, 4, 17, 48, 143, 144, 160, 165, 167, 168, 172, 184, 185, 282, 283, 284, 285, 286, 287, 289, 290, 296, 297, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 369, 370, 371, 452, 453, 454, 461, 617, 618, 619, 620, 621, 622, 623, 624, 625, 700, 702, 704, 706, 707, 708, 831, 845, 846, 847, 848, 850, 852, 1052, 1219, 1313, 1314, 1315, 1316, 1317, 1318, 1319, 1320, 1321, 1322, 1323, 1399, 1540, 1661, 1667, 1668, 1693, 1695, 1696, 1720, 1721, 1722, 1745, 1746, 1747, 1773
1865, wet	59, 172, 286, 288, 291, 292, 293, 294, 295, 455, 456, 457, 458, 459, 460, 462, 463, 464, 703, 705, 849, 851, 1047, 1048, 1049, 1051, 1232, 1337, 1396, 1397, 1398
1875, dry	84, 372, 393, 465, 466, 471, 475, 477, 626, 629, 630, 644, 645, 650, 651, 709, 710, 711, 712, 718, 719, 721, 753, 754, 755, 756, 757, 853, 854, 855, 858, 1053, 1054, 1055, 1056, 1058, 1059, 1063, 1244, 1329, 1332, 1400, 1669, 1675, 1697
1875, wet	62, 85, 92, 93, 94, 95, 96, 98, 467, 468, 469, 470, 472, 473, 474, 476, 627, 628, 630, 646, 647, 648, 649, 652, 713, 714, 715, 716, 717, 720, 856, 857, 858, 859, 860, 861, 1057, 1058, 1060, 1061, 1062, 1063, 1064, 1065, 1245, 1246, 1247, 1325, 1326, 1327, 1328, 1333, 1412, 1413, 1453, 1670, 1671, 1672, 1673, 1674, 1676, 1677
1876, dry	18, 373, 374, 375, 376, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 489, 490, 491, 492, 493, 494, 495, 653, 654, 655, 656, 911, 912, 913, 914, 1066, 1067, 1068, 1069, 1070, 1071, 1072, 1073, 1074, 1076, 1081, 1401, 1678, 1679, 1680, 1681, 1687, 1688, 1689, 1691, 1692, 1767
1876, wet	319, 344, 345, 488, 722, 758, 759, 760, 862, 1075, 1077, 1079
1877, dry	1, 4, 19, 20, 21, 22, 23, 49, 50, 51, 52, 53, 54, 55, 56, 57, 99, 169, 187, 188, 189, 190, 191, 192, 377, 378, 379, 380, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 568, 569, 571, 739, 740, 741, 915, 916, 917, 918, 919, 920, 921, 922, 923, 1078, 1082, 1084, 1085, 1086, 1087, 1089, 1090, 1091, 1093, 1094, 1095, 1097, 1098, 1099, 1100, 1101, 1102, 1103, 1104, 1105, 1106, 1108, 1109, 1111, 1112, 1113, 1114, 1115, 1116, 1117, 1118, 1119, 1120, 1121, 1122, 1123, 1126, 1127, 1128, 1132, 1135, 1137, 1138, 1211, 1212, 1213, 1214, 1215, 1216, 1217, 1218, 1402, 1403, 1404, 1405, 1406, 1407, 1409, 1410, 1411, 1414, 1416, 1417, 1454, 1455, 1456, 1457, 1487, 1648, 1682, 1683, 1684, 1686, 1690, 1691, 1734, 1775
1877, wet	186, 346, 515, 533, 567, 568, 570, 657, 658, 659, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 761, 762, 763, 764, 765, 766, 767, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 1080, 1082, 1083, 1088, 1090, 1092, 1096, 1104, 1107, 1110, 1124, 1125, 1128, 1129, 1130, 1131, 1133, 1134, 1136, 1137, 1408, 1415, 1648, 1688

Table 5. The references to wet or dry conditions during the tree-ring reconstructed wet extremes in the eastern Amazon are listed by year. These references are counted and plotted by location in Figure 3 for both wetness or drought, but most sources referred to wet conditions in northern Brazil during reconstructed wet years. The bibliographic sources are numbered and correspond to the sequence numbers listed for all citations in Table 1, column 1. No historical sources were found for the reconstructed wet extremes of 1794, 1801, 1813, or 1818, although 1814 and 1819 were “recollected” in later historical documents as great floods on the Amazon River (see Table 7 under the “Wet Years”). Again, a single source may have cited several locations.

Wet Years	Sources
1794, dry	
1794, wet	
1801, dry	
1801, wet	
1813, dry	
1813, wet	
1818, dry	
1818, wet	
1829, dry	
1829, wet	163, 164, 414, 1438, 1439, 1440
1850, dry	133, 194, 202, 679, 680, 681, 987, 988, 1275, 1360, 1559, 1560, 1662
1850, wet	135, 136, 193, 195, 200, 201, 203, 361, 678, 682, 734, 986, 989, 991, 994, 1259, 1274, 1275, 1367, 1368, 1369, 1370, 1448, 1450, 1480, 1481, 1529, 1700, 1714, 1715
1859, dry	41, 42, 44, 45, 46, 82, 196, 235, 240, 241, 243, 245, 246, 258, 261, 262, 263, 264, 1015, 1016, 1017, 1018, 1019, 1028, 1254, 1372, 1373, 1377, 1378, 1379, 1380, 1381, 1382, 1641, 1730, 1731
1859, wet	28, 43, 44, 83, 97, 233, 234, 237, 238, 239, 242, 244, 245, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 259, 260, 265, 322, 362, 363, 368, 443, 737, 738, 813, 814, 815, 816, 1012, 1013, 1014, 1018, 1020, 1021, 1022, 1023, 1024, 1025, 1026, 1027, 1028, 1029, 1030, 1255, 1256, 1373, 1374, 1375, 1376, 1383, 1384, 1385, 1386, 1446, 1642, 1664, 1665, 1716, 1717
1863, dry	8, 9, 16, 58, 183, 272, 278, 280, 281, 324, 325, 449, 450, 451, 697, 698, 1035, 1036, 1037, 1039, 1043, 1045, 1393, 1394, 1478, 1482
1863, wet	5, 6, 7, 182, 183, 267, 268, 269, 270, 271, 273, 274, 275, 276, 277, 279, 323, 444, 445, 446, 447, 448, 692, 693, 694, 695, 699, 1031, 1032, 1033, 1034, 1038, 1040, 1041, 1042, 1044, 1050, 1308, 1309, 1310, 1311, 1366, 1395, 1451, 1452, 1643, 1644, 1645, 1646, 1647, 1666, 1718, 1719
1891, dry	24, 25, 26, 27, 31, 33, 34, 35, 37, 86, 90, 100, 101, 104, 105, 106, 107, 111, 112, 113, 114, 178, 349, 350, 360, 364, 366, 367, 381, 383, 384, 385, 386, 387, 395, 396, 398, 399, 401, 403, 407, 410, 574, 575, 576, 577, 578, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 631, 632, 633, 634, 635, 660, 662, 663, 664, 665, 735, 749, 750, 768, 769, 770, 771, 774, 775, 812, 833, 834, 835, 836, 837, 874, 875, 876, 877, 878, 879, 881, 883, 884, 885, 886, 887, 888, 890, 891, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 924, 925, 926, 927, 929, 930, 931, 932, 933, 938, 939, 940, 941,

	942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 1141, 1142, 1143, 1144, 1145, 1146, 1147, 1148, 1149, 1150, 1151, 1152, 1153, 1154, 1158, 1160, 1161, 1162, 1164, 1165, 1166, 1168, 1169, 1170, 1200, 1201, 1207, 1209, 1225, 1226, 1231, 1234, 1236, 1238, 1239, 1240, 1241, 1248, 1249, 1250, 1253, 1260, 1261, 1262, 1263, 1264, 1266, 1267, 1357, 1358, 1419, 1420, 1422, 1423, 1424, 1425, 1426, 1427, 1428, 1429, 1430, 1434, 1435, 1449, 1488, 1489, 1490, 1491, 1493, 1494, 1496, 1497, 1498, 1499, 1500, 1501, 1502, 1503, 1504, 1505, 1523, 1524, 1525, 1526, 1530, 1531, 1532, 1533, 1535, 1536, 1537, 1543, 1544, 1545, 1546, 1547, 1548, 1549, 1550, 1551, 1552, 1553, 1555, 1556, 1566, 1567, 1568, 1569, 1572, 1573, 1574, 1575, 1576, 1577, 1578, 1579, 1580, 1600, 1601, 1602, 1603, 1604, 1605, 1606, 1607, 1608, 1609, 1610, 1611, 1612, 1613, 1614, 1615, 1649, 1650, 1651, 1652, 1653
1891, wet	29, 30, 32, 36, 87, 88, 89, 102, 103, 108, 109, 110, 321, 347, 348, 382, 394, 397, 400, 402, 406, 408, 409, 579, 634, 660, 661, 666, 772, 773, 880, 882, 889, 892, 928, 934, 935, 936, 937, 953, 1140, 1142, 1155, 1156, 1157, 1159, 1167, 1171, 1199, 1202, 1203, 1204, 1205, 1206, 1208, 1227, 1228, 1229, 1230, 1233, 1235, 1237, 1251, 1252, 1265, 1270, 1421, 1492, 1495, 1504, 1534, 1554, 1557, 1570, 1571, 1694, 1698, 1702, 1703, 1704, 1705
1892, dry	40, 129, 388, 411, 412, 413, 591, 592, 593, 594, 595, 596, 598, 602, 603, 604, 639, 667, 751, 752, 776, 777, 778, 779, 781, 783, 785, 838, 839, 840, 843, 954, 955, 956, 957, 958, 959, 960, 1172, 1173, 1174, 1180, 1181, 1220, 1271, 1506, 1508, 1510, 1583, 1654, 1739, 1740, 1741, 1742
1892, wet	38, 39, 115, 116, 117, 118, 128, 179, 180, 321, 351, 352, 353, 354, 355, 365, 389, 390, 391, 392, 404, 597, 599, 600, 601, 609, 636, 637, 638, 640, 641, 642, 643, 668, 669, 670, 736, 780, 782, 784, 805, 841, 842, 844, 903, 961, 1175, 1176, 1177, 1178, 1179, 1210, 1242, 1243, 1359, 1388, 1389, 1390, 1391, 1507, 1509, 1511, 1512, 1513, 1514, 1515, 1516, 1527, 1538, 1539, 1581, 1582, 1584, 1585, 1586, 1587, 1616, 1617, 1659, 1660
1897, dry	63, 78, 120, 125, 356, 357, 358, 359, 607, 743, 746, 787, 788, 789, 797, 803, 832, 905, 962, 963, 964, 965, 1182, 1183, 1184, 1187, 1190, 1191, 1195, 1196, 1221, 1222, 1519, 1620, 1707
1897, wet	64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 119, 121, 122, 123, 124, 126, 130, 174, 175, 176, 177, 181, 405, 605, 606, 608, 609, 610, 611, 612, 613, 614, 615, 616, 744, 745, 747, 748, 786, 790, 791, 792, 793, 794, 795, 796, 798, 799, 800, 801, 802, 804, 806, 807, 808, 904, 906, 907, 966, 967, 968, 1185, 1186, 1188, 1189, 1192, 1193, 1194, 1223, 1224, 1361, 1362, 1431, 1432, 1441, 1442, 1443, 1444, 1486, 1517, 1518, 1520, 1521, 1522, 1528, 1588, 1589, 1618, 1619, 1706, 1708, 1709, 1710, 1711, 1712, 1713

Table 6. The number of all historical reports found during the years of tree-ring reconstructed dry and wet extremes in the eastern Amazon are summed for each state in Brazil (or nearby country). The sums for all wet or dry years at each specific location (city, basin, region) are plotted in the composite maps (Figure 5).

BR State or nearby Country	Dry	Wet
Alagoas dry	9	6
Alagoas wet	0	12
Amapá dry	0	0
Amapá wet	0	1
Amazonas dry	15	0
Amazonas wet	0	36
Bahia dry	47	147
Bahia wet	28	37
Ceará dry	303	40
Ceará wet	16	34
Espírito Santo dry	2	3
Espírito Santo wet	0	8
Goiás dry	2	0
Goiás wet	5	1
Maranhão dry	28	2
Maranhão wet	18	3
Mato Grosso dry	1	2
Mato Grosso wet	7	2
Mato Grosso do Sul dry	1	2
Mato Grosso do Sul wet	0	1
Minas Gerais dry	46	3
Minas Gerais wet	6	17
Pará dry	17	0
Pará wet	11	23
Paraíba dry	82	29
Paraíba wet	8	7
Paraná dry	9	10
Paraná wet	2	9
Pernambuco dry	123	37
Pernambuco wet	10	25
Piauí dry	26	12
Piauí wet	0	3
Rio de Janeiro dry	74	11
Rio de Janeiro wet	53	57
Rio Grande do Norte dry	89	34

Rio Grande do Norte wet	4	4
Rio Grande do Sul dry	83	36
Rio Grande do Sul wet	28	31
Roraima dry	2	0
Roraima wet	0	0
Santa Catarina dry	1	6
Santa Catarina wet	1	29
São Paulo dry	40	10
São Paulo wet	11	66
Sergipe dry	11	37
Sergipe wet	1	9
Tocantins dry	1	0
Tocantins wet	0	0
Argentina dry	12	22
Argentina wet	10	33
Bolivia dry	0	3
Bolivia wet	0	0
Chile dry	0	0
Chile wet	0	5
Paraguay dry	1	4
Paraguay wet	3	3
Peru dry	0	3
Peru wet	0	0
Uruguay dry	13	8
Uruguay wet	11	12
Total	1268	931

Table 7. Selected historical citations to climate or streamflow conditions in Brazil during tree-ring reconstructed wet season precipitation extremes for the eastern Amazon from 1790-1900 are listed for the 11 dry years (lower 10th percentile) and 11 wet years (upper 10th percentile). These include selected quotations in the original Portuguese along with the English translation. See Tables 4 and 5 for the complete list of sources for all 22 extremes.

Dry

Years: Descriptions and Sources:

1791	The drought of 1791 has been referred to as the worst drought in northeastern Brazil during the 18 th century (Brasil 1877; Alves 2003; Table 1, source 146). Newspaper accounts published later in the 19 th century suggest that the drought of 1791 persisted from 1791 to 1793 over Bahia, Ceará, Paraíba, Pernambuco, Piauí, Rio Grande do Norte and Sergipe, causing major water shortages, crop failure, famine, and death (Alves 2003; Table 1, sources 91, 131, 141, 145, 157, 171, 573, 691, 811, 908). A few newspapers indicate that the drought of 1791 extended into the state of Maranhão on the eastern margin of the Amazon Basin (Table 1, sources 91, 141, 908, 984), but no references to climate in the Amazon Basin were found for 1791. In fact, no specific reports of climate or environmental conditions in the Amazon River basin were found for the first six tree-ring reconstructed drought extremes of the late 18 th and early 19 th century, which were largely restricted to northeastern Brazil (Figure 2a-f).
1804	Drought in northeastern Brazil was reported by a few sources for 1804 (Figure 2b; Table 1, source 990), including famine and poor pastures in Ceará (Camara 1899, Table 1, source 1743).
1825	The tree-ring reconstructed droughts of 1825 and 1826 (Figures 1a, 2cd) occurred during a period of prolonged drought that persisted over northeastern Brazil from 1824-1827 (Brasil 1877; Alves 2003; Table 1, sources 60, 61, 132, 150, 1336, 1344, 1346, 1351). The year 1825 was later referred to as one of the worst droughts in the history of the country (Table 1, sources 572, 691, 1353). Crop failure, water shortages, and famine were all described for the drought of 1825 in northeast Brazil (Table 1, sources 60, 61, 140, 161, 671, 691, 821, 1354).
1826	The drought of 1825 persisted into 1826 over northeastern Brazil (Figure 2d; Table 1, sources 825, 826, 830) and may have extended south to Rio de Janeiro in both 1825 and 1826 (Table 1, source 671; Figure 2cd).
1833	Scarce rainfall, crop failure, stock losses, and famine were reported in northeastern Brazil in 1833 (Figure 2e; Table 1, sources 209, 1280, 1701; Brasil 1877; Alves 2003).
1839	Just one reference to dryness in the state of Pernambuco was found for the tree-ring reconstructed drought of 1839 (Figure 2f; Table 1, source 419), but wet conditions were also described in adjacent areas of northeastern Brazil in 1839 (Figure 2f).
1853	The first historical evidence for specific drought impacts in the Amazon River basin during the period from 1790-1900 was found for the reconstructed dry extreme of 1853 when drought conditions extended from northeastern Brazil into the central Amazon (Figure 2g). Living conditions in the states of Ceará, Maranhão, and Pará were described as poor due to dryness (Table 1, source 1295). Ship groundings on

the Amazon River were reported in October of 1853 by the president of Amazonas Province, Sr. Herculano Ferreira Penna, due to the low river levels during drought (Table 1, source 742).

1865 The “Forgotten Drought” of 1865 appears to have been one of the most extreme droughts in the Amazon River basin during the historical or modern era. The Forgotten Drought is described in the main article and the Portuguese quotations are listed below with translation. The steamship *Ycamiaba* became grounded twice in trying to navigate the main channel of the Solimões from Tabatinga on the Peruvian frontier to Manaus (Table 1, source 708):

“Por ter o Ycamiaba encalhado duas vezes na viagem de Setembro em consequência da grande vasante do rio, só pode chegar a Manaus no dia 26 desse mez.”

“As the *Ycamiaba* grounded twice on the September trip as a result of the great ebb of the river, it could only reach Manaus on the 26th of that month.”

The low water levels on the Solimões in 1865 were described by Major Coutinho (*Diario de Pernambuco* 1865c, Table 1, source 1747):

“O rio está neste momento na máxima vasante, aqui perto de Tabatinga grandes bancos de arêa e lodo se veem a descoberto nos cabeços das ilhas, e mesmo no meio do rio, onde os índios e os moradores das villas e freguesias se acham acampados para pescar tartarugas, pracayós, etc.”

“The river is presently at its maximum ebb, here near Tabatinga. Large banks of sand and mud are discovered on the headlands of the islands, and even in the middle of the river, where the Indians and inhabitants of villages and parishes are camped out to fish for turtles, pracajos, etc.”

Coutinho described the “invasion of the sea at the mouth of the Amazon” in late 1865 (Table 1, source 167):

“Presentemente, a distancia que vai do pharol das Salinas à costa é muito menor do que quando se construiu essa obra, em 1849. O mar bate hoje de encontro a muralha, que protege a collina em que se acha o pharol, tendo destruído já uma parte, e deixando a outra com os alicerces quase à flor da terra. Se a muralha não fôr reforçada, e protegida por um extenso enrocamento, o pharol desaparece em breve. E esta grande revolução teve lugar apenas no insignificante período de 17 annos!”

“Currently, the distance from the Salinas lighthouse to the coast is much shorter than when this work was built in 1849. The sea is now crashing against the wall, which protects the hill on which the lighthouse is located, having already destroyed a part, and leaving the other with its foundations almost on the edge of the earth. If the wall is not reinforced, and protected by

- an extensive rockfill, the lighthouse will soon disappear. And this great revolution took place only in the insignificant period of 17 years!”
- 1875 The tree-ring reconstructed dry years in 1875 and 1876 culminated in the Great
1876 Drought of 1877 (Figure 1a; Alves 2003; *O Cearense* 1877, Table 1, source 1775; Table 4). The drought of 1877 was the most severe of this three-year episode (Table 4) and the impacts may have been greatest over northeastern Brazil based on the number of historical reports found in the BDL (Figure 2) and the descriptions of Cunniff (1970) and Greenfield (1992).
- 1877 The drought of 1877 has been referred to as the “Great Drought” in Brazil (Cunniff 1970, Greenfield 1992) and was one of the most extreme widespread droughts and famines in world history (Davis 2001; Singh et al. 2018). Fifty million people may have perished in the global famine that developed in the ENSO-related droughts of the late-1870s (Davis 2001), including an estimated one million deaths in Brazil in 1877 (Cunniff 1970). The Great Drought also appears to have contributed to a major emigration of population out of the coastal provinces of northeast Brazil (Silva 1885; Alves 2003; Table 1, sources 188, 380, 1126, 1135).

Low precipitation in the Amazon basin and an extremely low *vazante* on the Amazon River were also noted in 1877 (Table 1, sources 21, 23, 566, 1123, 1135, 1137, 1211, 1212, 1213, 1214, 1215, 1487). Three steam ships are reported to have grounded on the Amazon River in 1877, apparently due to both low water levels and heavy smoke from wildfires that impeded navigation on the river (Table 1, source 1215). The *vazante* of 1877 was described in detail by the *Diario de Pernambuco* (Table 1, source 566):

“Tem sido extraordinaria a actual vazante do Amazonas, e seus afluentes. Os vapores, apesar do grande cuidado com que se faz hoje a navegação, tem encalhado mesmo em lugares por onde na vazante de outros anos sempre transitaram sem o mínimo obstáculo. Os lagos menos profundos têm ficado com o leito a descoberto, do que resulta grande mortandade de peixe. Nos outros a pesca é feita com summa facilidade, pelo que a safra do Pirarucú deve ser extraordinária. Em vários paraná-mirys tem morrido o peixe nas margens, por efeito da grande descida do rio. Há lugares onde não chove há três meses.”

“The current ebb of the Amazon and its tributaries has been extraordinary. The steamships, despite great care with which navigation is carried out today, have grounded even in places where during the ebb of other years they have always traveled without the slightest obstacle. The shallower lakes have been left with the bed uncovered, resulting in a great mortality of fish. In others, fishing is done with ease, so the pirarucu harvest must be extraordinary. In several Parana-mirins, the fish on the banks have died, because of the great descent of the river. There are places where it has not rained for three months.”

The drought of 1877 was a major event in world history (Davis 2001) and the co-occurrence of drought over Brazil and India was noted at the time by André Rebouças, a Brazilian engineer (Alves 2003). Rebouças also noted simultaneous drought in Brazil and India in 1833, 1839, 1865, and 1876 (Alves 2003; *O Cearense* 1877, Table 1, source 1775), all of which were drought extremes in the tree-ring reconstruction of wet season precipitation in the eastern Amazon. The co-occurrence of drought in South Asia and tropical South America and wetness in some parts of North America are now known to arise during many El Niño events, but this coincidence was noticed by Rebouças in 1877. Of course, it was Gilbert Walker who would first scientifically describe the Southern Oscillation (Walker 1924; Walker and Bliss 1932), which is the atmospheric component of the dynamic air-sea interaction that can link precipitation in Asia and the Americas. The Walker Circulation component of ENSO is named for Sir Gilbert Walker (Bjerknes 1969) and is the east-west overturning circulation of the atmosphere along the equator that shifts zonally during ENSO extremes (Philander 1990). During El Niño events a descending arm of the Walker Circulation typically brings drought to the eastern Amazon and northeastern Brazil, but during La Niña conditions an ascending branch favors unusual wetness over that region. ENSO is also associated with simultaneous moisture anomalies of opposite sign in temperate North and South America, and this antiphase pattern was mentioned during the El Niño event of 1877 by a newspaper in the state of Para (*A Constituição* 1877, Table 1, source 1734):

“Provincia do Pará. Entre as noticias que dá das providências meridionais, sobressahe a da extraordinária secca. Parece que esta calamidade se tem tornado geral em todo o hemisfério meridional, entretanto que o hemisfério septentrional, pelo contrário, sofre superabundância de chuva.”

“Province of Para. ...the extraordinary drought stands out. It seems that this calamity has become general throughout the southern hemisphere, while the northern hemisphere, on the contrary, suffers from a superabundance of rain.”

Wet

Years: Descriptions and Sources:

1794	No historical records of climate were found in the BDL during the reconstructed wet
1801	extremes of 1794 and 1801, and the only possibly relevant sources for 1813 and
1813	1818 were recollections of great floods on the Amazon in 1814 and 1819, both
1818	following the reconstructed extreme by one year and noted in the available historical
	documents well after the events are supposed to have happened (Table 1, sources
	28, 1027, 1664, 1698). The wettest year in the entire 227-year reconstruction
	occurred in 1818, but it is not at all certain that the flood noted for 1819 can be
	related to the reconstructed rainfall extreme one year earlier. Consecutive flood
	years on the Amazon have of course been noted, for example in 1859-1860 and
	1890-1892 (Lacerda 1865, Table 1, source 1773; Table 1, sources 321, 443, 1698),
	but additional proxy and historical evidence will be required to support or refute the
	potential link between heavy rainfall and flooding in 1813-1814 and 1818-1819. We

do not think that this mismatch in extreme rainfall and flooding is due to a dating error in the tree-ring reconstruction because strong crossdating is observed in the *C. odorata* tree-ring series (Granato-Souza et al. 2020; Santos et al. 2020) and because reconstructed rainfall in the eastern Amazon is negatively correlated with tree-ring reconstructed cool season precipitation across southwestern North America during the early 19th century (1804-1847; Stahle et al. 2020). The North American reconstructions are based on hundreds of exactly dated tree-ring chronologies. Also, the year 1818 was very dry over Arizona and New Mexico (Burnette 2021), which would be consistent with La Niña conditions in the tropical Pacific favoring drought over southwestern North America simultaneously with wetness over northeastern South America.

1829 A few reports of wetness were found in eastern Brazil during the reconstructed wet year of 1829 (Figure 3; Table 1, sources 163, 164, 414), but no sources describing conditions in the Amazon basin were found.

1850 Wetness and flooding were described in the state of Pará in the Amazon and in the states of Maranhão and Bahia during the tree-ring reconstructed wet year of 1850, including deaths from yellow fever in Pará (Table 1, source 1275; *Revista Commercial* 1851, Table 1, source 1776). In 1850, the Brazilian writer Tenreiro Aranha referred to a flood of the Pará River (Table 1, source 989) and the president of the State of Pará, Sr. Jeronimo Francisco Coelho, reported damage to the fortress at Macapá due to the strong currents of the Amazon River (Table 1, source 991):

“Os concertos da fortaleza de Macapá. Esta obra começou em fins do anno de 1848. As caudalosas correntezas da foz do Amazonas tinham com a successão dos tempos desmoronado os terrenos da esplanada da fortaleza ate quasi a raiz das muralhas, que ficavam assim expostas a serem brevemente aludidas pela base.”

“The repairs of the Macapá fortress. This work began at the end of the year 1848. The mighty currents of the mouth of the Amazon had, with the succession of times, collapsed the grounds of the esplanade of the fortress almost to the root of the walls, which were thus briefly exposed at the base”

This report may indicate extreme flooding near the mouth of the Amazon River in 1850, and possibly in 1849, because the Fortress of Macapá is still present and the normal level of the Amazon is well below the foundation of the fortress.

1859 Extreme flooding on the Amazon River during the reconstructed wet year of 1859 was reported by several sources (Table 1, sources 28, 97, 253, 254, 257, 259, 443, 1021, 1664), and was referred to as the Great Flood of 1859 by Lacerda 1865, Table 1, source 1773; Table 1, source 1698). *A Epocha* described the flooding along the lower Amazon River in June of 1859 (Table 1, source 28):

“Santarem. A enchente do Amasonas. Quizeramos traçar, ao vivo, um quadro que bem pozesse ao alcance de todos os incalculáveis danos que o povo amazonense tem sofrido, e continua a sofrer com a grande crescente do rio, e de uma tão espantosa maneira, que não há tradição, levando em

sua voraz corrente tudo quanto poderia embaraçar sua impetuosidade. A única tradição que existe sobre as grandes cheias do Amazonas, são a de 1807 e 1819, e estas que servirão de regra aos lavradores para a procura de suas terras para cultura, e edificação forao completamente iludidos no ano de 1859 (!) em que a enchente cobrio todos os marcos d'aquelas: cobrio todas as terras, e ainda foi prejudicar alguns estabelecimentos edificados em terras do continente e bem altas; e sua invasão ainda foi aos povoados como Santarem e Alenquer em que a primeira rua ficou completamente intransitável, podendo agora fazer-se o transito por canoa, quando antes se fazia por terra! Pelos districtos de Santarem, Alemquer, Obidos, e Villa Franca, onde os estabelecimentos são edificados nas várzeas, não se encontra uma única casa cujo pavimento não esteja afogado com 2 ou mais palmos d'agua."

"Santarem. The Amazon Flood. We would like to paint a living picture that would put well within reach of all the incalculable damages that the Amazonian people have suffered and continue to suffer from the great rise of the river, and in such an amazing way, that there is no tradition, taking with its ravenous current all that could hinder its impetuosity. The only tradition that exists about the great floods of the Amazon, are the ones of 1807 and 1819, and these that served as a rule to the farmers, for the search of their lands for agriculture, and building, were completely mistaken in the year of 1859 (!) in that the flood covered all the landmarks of those, covered all the lands, and even was to harm some establishments built in lands of the mainland and very high; and its invasion even went to towns like Santarem and Alemquer, where the first street was completely impassable, and now traffic can be made by canoe, whereas before it was done by land! In the districts of Santarem, Alemquer, Obidos, and Vila Franca, where establishments are built on the floodplains, there is not a single house whose floor is not flooded with two or more palms of water." [one palm = 0.228m].

Note that the "great flood" of 1807 mentioned in *A Epocha* (1859, Table 1, source 28) was not a tree-ring reconstructed wet extreme in the eastern Amazon.

The Lacerda reference (Table 1:1774) refers to comments regarding the Rio Negro in 1859 and 1860 attributed to Coutinho:

"Começa quase sempre em Novembro a enchente e termina em Junho. Em 1861, o rio Negro declinou a 25 de Junho no porto desta capital e em 1862 a 5 do mesmo mês. Nos anos de 1859 a 1860 extraordinarias foram as enchentes, igualando-se as vasantes de 1861 a 1862. A amplitude da variação chegou a 67 palmos, entre as maximas oscilações.

Não se encontra tradição de terem as águas transposto os limites a que subiram em 1861 e 1862, e pois pode-se admitir como exato o maximum de 67 palmos, o médio de 57 palmos e o mínimo de 40. Os limites de 1861

guardaram entre si a distância de 44 palmos e 2 polegadas. A enchente desse ano foi de 10 palmos menor que a do anterior, e a vasante excedeu na mesma proporção o termo ordinário.”

“The flood almost always starts in November and ends in June. In 1861, the Rio Negro declined on the 25th of June in the port of this capital and in 1862 on the 5th of the same month. In the years from 1859 to 1860, the floods were extraordinary, equaling the vazantes of 1861 and 1862. The amplitude of the variation reached 67 palms, between the maximum oscillations.

There is no tradition of the waters crossing the limits to which they rose in 1861 and 1862, and therefore the maximum of 67 palms, the average of 57 palms and the minimum of 40 can be accepted as exact. itself the distance of 44 palms and 2 inches. This year's flood was 10 palms less than that of the previous year, and the ebb flow exceeded the ordinary term in the same proportion.”

Note that we think that “*igualando-se as vasantes de 1861 a 1862*” (“equaling the vazantes of 1861 and 1862”) refers to the change from the flood height to the low stands of 1861 and 1862, approximately 67 palms, NOT that the floods equaled the low stands.

- 1863 There is historical support for the reconstructed wet extreme of 1863 along the Amazon River and in the northeastern region of Brazil (Figure 3d; Table 1, sources 277, 699, 1310, 1666).
- 1891 Flooding was reported on the Amazon River during the reconstructed wet year of 1891 (Figure 3e; Table 1, sources 102, 321, 397, 1698). In fact, three consecutive years of flooding occurred on the Amazon River from 1890 to 1892 according to *Correio Paraense* (1893, Table 1, source 321):

“Há três annos consecutivos que tem sido grandes as cheias do Amazonas e não há exemplo de que já tivesse havido quatro cheias seguidas.”

“There have been great floods in the Amazon for three consecutive years and there is no example that there have already been four floods in a row.”

However, the flooding on the Amazon co-occurred with dryness that was widely reported over northeastern Brazil during 1891 (Figure 3e), which contradicts the tendency for wetness and especially dryness to co-vary between the eastern Amazon and northeastern Brazil (Figures 2 and 3).

- 1892 The flood of 1892 was extreme and a series of reports in the periodical *Diario de Manaos* from May 21 to August 27, 1892 (Table 1, sources 389, 390, 391), indicate that the bridge over Bittencourt Creek in Manuas was overtopped by floodwaters from the Rio Negro. On May 21, 1892, *Diario de Manaos* reported:

"...desde já pomos de sobreaviso a ilustre intendencia sobre a enchente do rio, a qual cobrirá a ponte do igarapé Bitencourt se pouco mais de palmo subir: este aviso é para que em um belo dia os moradores da Cachoeirinha não sejam reduzidos a se descalçar para atravessarem sobre a ponte ou tenham de procurar outros meios de transporte difíceis e onerosos para muitos."

"...we already put the illustrious stewardship on notice about the flooding of the river, which will cover the bridge of the Bitencourt Creek if it goes up one more palm: this warning is so that one fine day the residents of Cachoeirinha are not reduced to taking off their shoes to cross the bridge or have to look for other difficult and expensive means of transport for many." (Table 1, source 389).

Twelve days later on June 2, 1892, the *Diario de Manaus* declared in a headline that the bridge was "Inundada" (flooded) and:

"Esta finalmente tomada pela enchente do rio a ponte sobre o Igarapé Bittencourt, no Bairro da Cachoeirinha. Urge que a Intendência ordene com a máxima brevidade os reparos que forem precisos na dita ponte, a fim de restabelecer o transito publico. Bem sabemos que não cabe à intendência a culpa da inundaçao da ponte pela enorme cheia do rio, mas caber-lhe-há censura si não der, em quanto antes, as providências que o caso está exigindo."

"The bridge over the Bittencourt Creek, in the Cachoeirinha neighborhood, is finally taken by the river's flood. It is urgent that the superintendent order as soon as possible the repairs that are needed on the said bridge, in order to reestablish public traffic. We are well aware that the superintendent is not responsible for the flooding of the bridge for the enormous flooding of the river, but he will be blamed if he does not take the measures that the case is demanding as soon as possible." (Table 1, source 390).

And on August 27, 1892, the *Diario de Manaus* described the damage caused by what appears to have been the overtopping or complete inundation of the bridge and roadway:

"As Pontes"

"É outro assunto que carece dos cuidados dos ilustres diretores do município. Quase todas elas precisam de reparos, principalmente a segunda ponte da Cachoeirinha. Coberta como foi pelas águas do igarapé que atravessa, pela enorme enchente deste ano, os pregos oxidados pela longa imersão dilataram os lugares que atravessam nas madeiras da ponte, dando em resultado estarem todas as táboas do leito despregadas e completamente soltas sobre os respectivos barrotes."

“The Bridges”

“It is another matter that lacks the care of the illustrious directors of the municipality. Almost all of them need repairs, especially the second bridge at Cachoeirinha [i.e., the Bittencourt Bridge]. Covered as it was by the waters of the stream that it crosses, by the huge flood this year, the nails oxidized by the long immersion dilated the places they cross in the wood of the bridge, as a result of which all the boards of the bed were detached and completely loose on the respective joists.” (Table 1, source 391).

The size, location, and orientation of the bridges over Bittencourt Creek and Manaus Creek were discussed in the periodical *Amasonas* on June 15, 1881 (*Amasonas* 1881c, Table 1, source 1738):

“Publicação do Sr. Diretor das Obras Publicas recebemos a que segue: Como alguém, julgando que as pontes em construção nos igarapés de Manaos e Bittencourt deviam ter outra direção e maior altura, entendeu fazer-me acusações, sou obrigado a declarar o seguinte: O projeto para construção destas pontes não foi organizado por mim e sim, em 1876, pelo engenheiro da Câmara Municipal. A Câmara, achando-o bom, pediu a Presidência da província que o mandasse realizar à custa dos cofres provinciais, visto não poder dispor de dinheiro para esse fim. As duas pontes estão com as alturas e comprimentos marcados no desenho. O eixo da ponte do Igarapé de Manaus está perfeitamente em linha reta com a direção do meio da rua General Miranda Reis, no espaço compreendido entre a rua sete de Dezembro e o dito Igarapé.”

“Publication of the Director of Public Works we received the following: As someone, judging that the bridges under construction on the creeks of Manaos and Bittencourt should have another direction and greater height, understood to make accusations against me, I am obliged to declare the following: the project for the construction of these bridges was not organized by me, but, in 1876, by the engineer of the Municipal Chamber. The Chamber, finding it good, asked the presidency of the province to have it carried out at the expense of the provincial coffers, since it could not have the money for this purpose. The two bridges are with the heights and lengths marked in the drawing. The axis of the Manaus Creek Bridge is perfectly straight with the direction of the middle of General Miranda Reis Street [now referred to as 7 de Setembro Avenue], in the space between Seventh of December Street and the said creek.”

This information on the bridges built in 1881 and subsequently damaged in 1892 may prove valuable for reconstructions of the flood stage in 1892, especially if additional information on the engineering report can eventually be found.

1897 Flooding was reported at three locations along the Amazon River in 1897, simultaneously with unusual wetness over most of northeastern Brazil (Figure 3g; e.g., Table 1, sources 609, 1517). On February 21, 1897, *O Paiz* referred to wetness

and copious rains in Belém near the mouth of the Amazon in the state of Pará (Table 1, source 1517). The *Diario de Pernambuco* (May 13, 1897; Table 1, source 609) compared the extraordinary flood of the Purus River, one of the largest tributaries of the Rio Solimões in the western Amazon Basin, to the flood of 1892, suggesting that the flood on the Purus in 1897 may have exceeded flooding there in 1892.

Table 8. Tree-ring reconstructed precipitation extremes based on the *Cedrela* chronology from the Rio Paru-Baixo site are listed by dry and wet years, along with the rank (for the period 1790-1900) and reconstructed value for each extreme (columns 1-3). The Feb-Nov precipitation reconstructed rankings and values from the Rio Paru-Alto site (Granato-Souza et al. 2018) are also listed (columns 4-5; bold font for the Paru-Alto values that agree with the extreme categories estimated at Paru-Baixo). Note that 1804 and 1825 were above average and 1794 was below average for the reconstruction based on Paru-Alto, misses of sign compared with Paru-Baixo. The reconstructed precipitation extremes based on Paru-Baixo are compared with the Gergis and Fowler (2009) classifications for El Niño and La Niña conditions [listed under Niño and Niña, respectively (columns 6-7): W = weak, M = moderate, S = strong, VS = very strong] and with the Torbenson et al. (2019) reconstructed values of the Multivariate ENSO index (positive values indicate warm conditions, negative values cold).

	Rank ParuB	Recon ParuB	Rank ParuA	Recon ParuA	Niño	Niña	recMEI
Dry years							
1791	6	193.7	6	-0.77	VS		0.522
1795	9	206.8	12	-0.66		W	0.379
1804	4	179.5	105	0.98	W		0.480
1825	7	205.2	62	0.11		M	0.370
1826	8	206.0	46	-0.06			-0.848
1833	12	212.8	2	-1.29	S		0.636
1839	5	184.5	51	-0.03			0.941
1853	10	207.6	3	-0.86	VS		-0.017
1865	1	134.1	1	-1.36	M		0.198
1875	11	212.2	19	-0.54		S	-0.089
1876	3	177.9	14	-0.63	W		0.353
1877	2	162.8	22	-0.45	VS		0.634
Wet years							
1794	103	349.9	39	-0.15	M		-0.019
1801	105	353.5	89	0.58		VS	-0.897
1813	106	355.4	54	0.02		M	-0.051
1818	111	419.3	107	1.08			-0.867
1829	101	343.3	102	0.86	W		0.987
1850	108	367.2	85	0.50		W	0.621
1859	104	352.0	94	0.69			-0.232
1863	107	355.6	69	0.16		VS	-0.885
1891	102	343.3	93	0.61	VS		-0.084
1892	110	382.2	91	0.60		S	-1.141
1897	109	381.8	106	1.06	S		0.173