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# **Distribution area of the two floral morphs of *Nigella damascena* L. (Ranunculaceae): A diachronic study using herbarium specimens collected in France**

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Word count: 4203

## **Abstract**

Perianth dimorphism in *Nigella damascena* (Ranunculaceae) has been documented since four centuries, and its genetic basis has started to be studied almost one century ago. Based on herbarium collections, we reconstructed the evolution of the distribution area of the wild-type (perianth composed of a calyx and nectariferous petals) and mutant (apetalous) floral morphs in mainland France during the last two centuries. We showed that the collection localities of the wild-type morph are mostly concentrated in the southern coastal areas of France, whereas the collection localities of the mutant morph were less numerous but more scattered in France. The collection effort of both morphs peaked in the second half of the 19<sup>th</sup> century and continuously decreased afterwards. Results are interpreted taken into account the biases in the constitution of a herbarium collection. Knowledge about the spatial distribution and the frequency of occurrence of wild-type and mutant populations through time will help botanists

and evolutionary biologists investigate the origin and ecological grounds for the maintenance and propagation of the apetalous morph in the wild.

## **Keywords**

Collection bias; collecting effort; floral dimorphism; love-in-a-mist; museum time-series; natural history collection

## **Introduction**

Floral dimorphism has intrigued botanists and evolutionary biologists since centuries. Darwin devoted a book to this topic, focusing on heterostylous *Primula* flowers (Darwin 1897). *Nigella damascena* L. (Ranunculaceae), or love-in-a-mist, is a herbaceous species mainly distributed in the Mediterranean Basin, whose ancient use by human populations is well documented (Heiss and Oeggl 2005). In this species, two types of flowers are known at least since the end of the 16<sup>th</sup> century (Clusius 1601). The wild-type flower has a perianth composed of a pentamerous petaloid calyx and a series of 5–10 pouch-shaped nectariferous petals. By contrast, the unipartite perianth of the mutant type consists of numerous petaloid tepals (Deroin et al. 2015; Jabbour et al. 2015). The monogenic control of the dimorphism was first established by Toxopeus (1927) based on segregation analyses, and its molecular basis was unraveled almost one hundred year later (Gonçalves et al. 2013; Zhang et al. 2013). For simplicity, we will adopt the terminology of Gonçalves et al. (2013) to designate the wild-type (homozygous dominant or heterozygous for the combination of alleles controlling the dimorphism) and mutant (homozygous recessive) floral morphs, called [P] and [T], respectively. Human selection for plants with conspicuous flowers harbouring supernumerary petaloid organs likely played an important role in the long-term maintenance of the [T] phenotype, but [T] populations are also expected to occur in the wild because individuals are

self-fertile and plants can easily escape from gardens and become naturalized in favorable environments.

Herbarium collections are repositories of past and current plant biodiversity. Compiling the data held by all the herbarium specimens of a species allows reconstructing the evolution of its distribution area through time. In the case of *N. damascena*, knowledge about the spatial distribution and the frequency of occurrence of [P] and [T] populations through time would help botanists and evolutionary biologists investigate the origin and ecological grounds for the maintenance and propagation of the [T] morph in the wild. It should be possible to examine whether [T] populations can persist *per se* in the wild or if they are consistently found in the neighborhood of towns and villages, suggesting constant gene flow from gardens; alternatively, [T] individuals could consistently be found in the vicinity of [P] individuals, suggesting that the presence of nectariferous flowers in [P] plants may favor pollination and reproductive success of [T] plants with flowers lacking pollinator reward, and/or that the mutation is slightly deleterious and preferentially maintained in the heterozygous state. A last use of distribution maps would be to identify localities where *N. damascena* individuals from each morph could be currently collected.

To get insight into these topics, we built a quasi-exhaustive database of the world collection of *N. damascena* herbarium specimens. For this special issue of *Botany Letters*, we present the results concerning mainland France, explaining the database structure and the protocol to select the herbarium specimens for georeferencing and building the temporal sequence of distribution maps. We observe different distributions of the two morphs in mainland France, and discuss possible causes.

## **Materials and Methods**

### *Data collection and database construction*

We built a database gathering the information found on herbarium specimens of *N. damascena* (Fig. 1) from 39 herbaria, from the Mediterranean Basin or from other regions but housing large amounts of Mediterranean species or species growing in areas with a Mediterranean climate. The herbaria sent specimens on loan to P (Paris Herbarium), where they were studied. They were photographed for the record. Alternatively, the herbaria sent images of their collection of *N. damascena*.

The data gathered from the biological specimen (Fig. 1A-B and 1D) and from the label (Fig. 1C) are organized into 16 fields: (A) herbarium code; (B) barcode or reference in the herbarium; (C) collector's name; (D) collection number; (E–G) day, month, and year of collection; (H) country of origin, transcribed from the label or interpreted; current country names are provided; (I) collection locality; (J) other notes on the label (in the original language); (K) label mentioning that the specimen was in cultivation at the time of collection (yes/no); (L) assumption that the specimen was in cultivation at the time of collection (yes/no); (M) presence of flower(s) (yes/no); (N) flower morph (P/T, Fig. 1B and 1D); (O) presence of capsule(s) (yes/no); (P) GPS coordinates in decimal degrees, in the WGS 84 system. In some cases, GPS coordinates were available directly from the label. In most cases, localities were georeferenced by us using Google Maps (Google Inc., Mountain View, CA, USA). The collection locality could be precisely specified on the label (e.g. “Gorges d'Estrabols, commune de Salvagnac, canton de Villeneuve”), allowing precise GPS coordinates to be determined (in red in Supplementary Table 2). Less precisely described collection sites, for example just mentioning the closest city, were also attributed GPS coordinates (in blue in Supplementary Table 2). In other cases, e.g. when only the country of origin is specified or when the plant was in cultivation when collected with no mention of the seed origin, localization data was considered unavailable and (P) cells were marked with a double-slash (/). Except for (H) and (L), all data are transcribed from the label without

interpretation or come from the observation of the specimen. Label data was provided as a csv file by the following herbaria: BC, BEI, BM, E, FR, HUI, and MA; it was double-checked before being included in our database.

*Diachronic study of the distribution of Nigella damascena in France*

For the present study, we focused on data relative to all specimens collected in France (654 specimens; Supplementary Table 1, Fig. 1), recorded from 20 herbaria (B (Berlin), BC (Barcelona), BEI (Beirut), BM (London), CAI (Cairo), E (Edinburgh), FI (Florence), FR (Frankfurt), G (Geneva), HUI (Jerusalem), K (Kew), MA (Madrid), MEL (Melbourne), MPU (Montpellier), P (Paris), PAL (Palermo), S (Stockholm), TO (Torino), UPS (Uppsala), W (Vienna)); herbarium codes follow Thiers (2017). For the analysis of the distribution of the two morphs over time, we did not consider specimens without flowers (or with flowers compressed in such a way that the floral morph was not distinguishable), duplicate specimens (belonging to the same collection, i.e. same collector and collection number) and specimens with no collection year. We considered two datasets extracted from the database:

(i) the georeferenced dataset excludes specimens with a double slash in (P), and gathered 409 specimens from 18 herbaria (all specimens from BEI and CAI herbaria were discarded). Among these specimens, 12 were composed of two different collections (different combination [collector + collection number]). After splitting these accessions into two, the final dataset consisted of 421 entries. Supplementary Table 2 shows the collections that were used to build the distribution maps. We classified the entries into four time intervals ([1800–1849], [1850–1899], [1900–1949], [1950–1999]), and into two categories ([P] and [T] morph) within each interval. When the collection date is an interval, the latest year was considered. After the sorting process described above, no specimen collected in France after 2000 was included in the dataset. Maps were built using SimpleMappr (Shorthouse 2010).

(ii) the [P]/[T] dataset was built to compare the number of collected specimens from each morph among each 50-year period. It includes the cultivated specimens and the specimens that could not be georeferenced, and comprises 469 entries.

## Results

### *More than two centuries of biogeographical data captured in herbarium specimens*

The oldest and most recent French specimens of *N. damascena* included in our database were collected in 1784 by an unknown collector and in 2015 by F. Jabbour, respectively. These specimens were both cultivated (in “Jardin de Sally” and in Gif-sur-Yvette (see Jabbour et al. 2015), respectively), and hence not georeferenced. The whole dataset consists of 654 collections. The three herbaria that contributed most in terms of number of collections were P (Paris, 313 collections), MPU (Montpellier, 105) and G (Geneva, 43). The floral morph could be identified on 469 specimens (371 [P] and 98 [T]) and 421 specimens (352 [P] and 69 [T]) could be georeferenced. The three most active collectors of *N. damascena* specimens in France were Elisée Reverchon (1835–1914; 11 specimens), Florian Jabbour (1983–; 9 specimens), and Brother Sennen (Etienne Marcellin Granié-Blanc, 1861–1937; 8 specimens).

### *The collection localities of the [P] morph are mostly concentrated in the southern coastal areas of France*

Figure 2 shows the evolution of the distribution area of both floral morphs of *N. damascena* since 1800. Individuals from the [P] morph have mostly been collected from the southern half of France. Collection localities for this morph are particularly concentrated in the coastal areas of SE France (Provence-Alpes-Côte d’Azur, Languedoc-Roussillon and Corsica regions) and SW (Poitou-Charentes region). In the second half of the 19<sup>th</sup> century, four areas from which [P] specimens are mostly collected could be identified, namely, from West to

East, the Charente-Maritime department, the Hérault department, the Rhône Valley and the Alpes-Maritimes department. For the [T] morph, the collection localities are less numerous but more scattered than for the [P] morph. Additionally, they tend to be more northerly distributed in France.

### ***A peak of collection in the second half of the 19<sup>th</sup> century***

The collection of both morphs was the highest between 1850 and 1899 (233, about half of the specimens of the dataset), before decreasing continuously afterwards (Fig. 3A). The peak also coincides with more individuals from both morphs collected from the northern half of France. The collection of cultivated specimens, even though less numerous, follows the same temporal trend as the wild ones (Fig. 3B). In the wild collections, [P] morph individuals are more frequent than [T] morph ones in all time intervals (2.6 to 10 times more). The proportion of [T] morph individuals was the highest in the first half of the 20<sup>th</sup> century, reaching 28%. In contrast to the wild collection, more [T] than [P] individuals were found in the cultivated collection at each time period (Fig. 3B). During the last two centuries, 28 of the c. 300 collectors of *N. damascena* collected both floral morphs, but only 15 of them collected both morphs in the same locality.

## **Discussion**

### ***Caution required when analyzing herbarium collection records***

A collection of natural history is by nature biased. Not all the biodiversity can be captured in time and space, and the representativeness of a collection depends on the spatio-temporal uniformity of the collection effort (Auderset Joye et al. 2002). Many collectors collect objects of natural history in the places where they live or travel, and they can be biased towards or against unusual objects (e.g., with an unusual morphology or spatial occurrence). They can



collect in priority individuals with unusual phenotypes in order to have a record in their own collection, or they can ignore them because they deviate from the standard morphology. Indeed, botanists can purposely ignore plants considered as weeds and plants that are locally common. Hence a herbarium collection can paradoxically lack plants that are common or present at a given locality for long. Knowing these limitations, herbarium collection data should not be over-interpreted. They give a picture of biodiversity at certain times and places, filtered by collectors' interest that may vary according education and societal context. For a given species, a way to partly circumvent bias is to consider the most exhaustive set of herbarium collections from the highest number of herbaria. This is what we intended to do for *N. damascena*.

### ***The evolution of Nigella damascena collection effort in France***

In France, the collection effort concerning *N. damascena* has not been uniform during the last two centuries. After a peak in the second half of the 19<sup>th</sup> century, the number of specimens added to collections of natural history decreased continuously. Does it reveal that *N. damascena* distribution area has expanded and then shrunk down, or that the collection effort has been lower during the last decades? We tend to favor the second hypothesis. Indeed, we cannot figure out any natural cause that could explain a decrease in abundance in the wild, since this species has been common in France (see SIFlore and INPN databases; Just et al. 2015; Muséum national d'Histoire Naturelle 2003–2017; Fig. 4). However, the decrease in specimen number collected in the first half of the 20<sup>th</sup> century could be due to the impact of the two world wars on the activity of the scientists (Le Bras et al. 2015). Furthermore, we witness nowadays a general decline in collecting due to less funding for research in the field of natural history and the societal perception that collecting local flora is unnecessary (Renner and Rockinger 2016).

The fact that *N. damascena* has often been collected next to areas with high human population density could be due to the local presence of many collectors and to the naturalization of populations after escaping from gardens. Whilst this explanation could stand for the Parisian region, we do not think it is valid for the whole French territory, as *N. damascena* has not been heavily collected from many densely inhabited areas in northern France. Thus, we believe that the distribution of the species at the Atlantic coast, at the Rhône Valley and at the Mediterranean coast represent its true distribution area. The data made available online by SIFlore (Just et al. 2015), gathering distributional data for vascular plants in France from herbarium records but also from the literature and data from botanical conservatories and covering the last five centuries (from 1545 to 2014) and by the INPN (Muséum national d'Histoire Naturelle 2003–2017) are in accordance with our results, considering that these datasets distinguishes neither the [P] from the [T] morph nor wild from cultivated specimens (Figure 4).

The morph [T] has been less collected than the [P] morph over the last couple of centuries suggesting that such populations are less common in the wild than the [P]-morph populations ( $72/430 = 17\%$ ). One-tenth of the collectors of *N. damascena* collected both floral morphs, and more than half of them found both morphs in the same locality. This suggests that at least 21% ( $15/72$ ) of the [T] phenotype appears in mixed [P]-[T] populations.

Additionally, the two morphs are not equally distributed in France. Relatively more [T] specimens have been collected in the northern part of France and there is no reason to think that the collectors mostly living or botanizing in the northern half of France were more sensitive to unusual phenotypes. The presence of [T] populations further away from the Mediterranean and the Atlantic coasts could be due to the naturalization of populations in the vicinity of towns and villages after escaping from the gardens. The fact that most cultivated

specimens, which are enriched in [T] morphs, were also collected from the northern half of France is consistent with this hypothesis.

### ***A dataset valuable for diachronic evo-devo studies***

Museum time-series (set of specimens from the same species collected at different times) are the basic material for floras and conservation studies. Thanks to the information gathered on the collection label, the distribution area of a single species can be traced over time (e.g., Auderset Joye, Castella, and Lachavanne 2002). Such diachronic studies can be conducted at the scale of some centuries and do not result from any inference-based analysis. They differ from studies of historical biogeography in which older (thousand- to million-year old) dispersal events are inferred from the distribution areas of the extant taxa and the topology of a phylogenetic tree.

The distribution maps we built are based on the georeferencing of the collection localities of 421 individuals across two hundred years. Among this set of individuals, only three could be georeferenced with high precision, meaning the maps presented in Fig. 2 mostly show broad localities. However, comparing maps obtained from [P] and [T] specimens can allow us targeting localities where populations of both morphs could currently coexist. Such natural populations would be required for *in situ* long-term ecological studies.

Ancient DNA (i.e. extracted from relatively old herbarium specimens) has been sequenced to track invasion routes (Matsushashi et al. 2016) or analyse the evolution of the genetic diversity of a plant pathogen (Li et al. 2007) through time. In the case of *N. damascena*, mining our database for old and modern specimens from different origins will make it possible to test whether the molecular basis for the [T] phenotype is identical at the scale of the Mediterranean Basin as a whole, during the last two centuries. This research is currently under way in our team.

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## **Disclosure statement**

No potential conflict of interest was reported by the authors.

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For this publication, CD, WBO, DM and FJ gathered data, CD and FJ analyzed the results and wrote a first version of the manuscript, and all coauthors contributed to the last version of the manuscript.

## References

- Auderset Joye, D., E. Castella, and J. B. Lachavanne. 2002. "Occurrence of Characeae in Switzerland over the last two centuries (1800–2000)." *Aquatic Botany* 72 (3): 369–385. doi:10.1016/S0304-3770(01)00211-X.
- Clusius, C. 1601. "Melanthium pleno flore." In *Rariorum Plantarum Historia*, 207–208. Antwerp: Ex officina Plantiniana Apud Ioannem Moretum.
- Darwin, C. 1897. *The different forms of flowers on plants of the same species*. New York: D. Appleton.
- Deroin, T., C. Damerval, M. Le Guilloux, and F. Jabbour. 2015. "Floral vascular patterns of the double-flowered and wild-type morphs of *Nigella damascena* L. (Ranunculaceae)." *Modern Phytomorphology* 7: 13–20.
- Gonçalves, B., O. Nougé, F. Jabbour, C. Ridet, H. Morin, P. Laufs, D. Manicacci, and C. Damerval. 2013. An *APETALA3* homolog controls both petal identity and floral meristem patterning in *Nigella damascena* L. (Ranunculaceae). *The Plant Journal* 76 (2): 223–235. doi:10.1111/tpj.12284.

- Heiss, A. G., and K. Oeggl. 2005. The oldest evidence of *Nigella damascena* L. (Ranunculaceae) and its possible introduction to central Europe. *Vegetation History and Archaeobotany* 14 (4): 562–570. doi:10.1007/s00334-005-0060-4.
- Jabbour, F., M. Udrón, M. Le Guilloux, B. Gonçalves, D. Manicacci, S. Nadot, and C. Damerval. 2015. “Flower development schedule and *AGAMOUS*-like gene expression patterns in two morphs of *Nigella damascena* (Ranunculaceae) differing in floral architecture.” *Botanical Journal of the Linnean Society* 178 (4): 608–619. doi:10.1111/boj.12297.
- Just, A., J. Gourvil, J. Millet, V. Boulet, T. Milon, I. Mandon, and B. Dutrève. 2015. “SIFlore, a dataset of geographical distribution of vascular plants covering five centuries of knowledge in France: Results of a collaborative project coordinated by the Federation of the National Botanical Conservatories.” *PhytoKeys* 56: 47–60. doi:10.3897/phytokeys.56.5723.
- Le Bras, G., M. Pignal, M. L. Jeanson, S. Muller, C. Aupic, B. Carré, G. Flament, M. Gaudeul, C. Gonçalves, VR. Invernón, F. Jabbour, E. Lerat, P. P. Lowry, B. Offroy, E. P. Pimparé, O. Poncy, G. Rouhan, and T. Haevermans. 2017. “The French Muséum national d’histoire naturelle vascular plant herbarium collection dataset.” *Scientific Data* 4: 170016. doi:10.1038/sdata.2017.16.
- Li, W., Q. Song, R. H. Brlansky, and J. S. Hartung. 2007. “Genetic diversity of citrus bacterial canker pathogens preserved in herbarium specimens.” *Proceedings of the National Academy of Sciences* 104 (47): 18427–18432. doi:10.1073/pnas.0705590104.
- Matsushashi, S., H. Kudoh, M. Maki, M. Cartolano, M. Tsiantis, T. Itagaki, and S. Sakai. 2016. “Invasion history of *Cardamine hirsuta* in Japan inferred from genetic analyses of herbarium specimens and current populations.” *Biological Invasions* 18 (7): 1939–1951. doi:10.1007/s10530-016-1139-9.

- Muséum national d'Histoire naturelle. 2003–2017. “Inventaire National du Patrimoine Naturel.” <https://inpn.mnhn.fr>
- Renner, S. S., and A. Rockinger. 2016. “Is plant collecting in Germany coming to an end?” *Willdenowia* 46 (1): 93–97. doi:10.3372/wi.46.46106.
- Shorthouse, D.P. 2010. “SimpleMappr, an online tool to produce publication-quality point maps.” <http://www.simplemappr.net>
- Thiers, B. 2017. “Index Herbariorum: A global directory of public herbaria and associated staff, New York Botanical Garden’s Virtual Herbarium.” <http://sweetgum.nybg.org/science/ih/>
- Toxopeus, H. J. 1927. “Erblichkeitsuntersuchungen an *Nigella damascena* L.” *Genetica* 9: 341–440.
- Zhang, R., C. Guo, W. Zhang, P. Wang, L. Li, X. Duan, Q. Du, L. Zhao, H. Shan, S. A. Hodges, E. M. Kramer, Y. Ren, and H. Kong. 2013. “Disruption of the petal identity gene *APETALA3-3* is highly correlated with loss of petals within the buttercup family (Ranunculaceae).” *Proceedings of the National Academy of Sciences* 110 (13): 5074–5079. doi:10.1073/pnas.1219690110.

## Figure legends

**Figure 1.** Herbarium material providing data about the floral morph and the collection date and locality. (A) Herbarium specimen of *Nigella damascena* (barcode P02575070) presenting individuals from the [P] floral morph. (B) A focus on the most mature flower. The white arrows point at two of the petals. (C) A focus on the label showing the collection number, the determination provided by the collector, the collection locality and date, and the name of the

collector. (D) A flower from the [T] morph, from the specimen P00195185. Digital images of both specimens can be downloaded using the following links:

<http://coldb.mnhn.fr/catalognumber/mnhn/p/p02575070> and

<http://coldb.mnhn.fr/catalognumber/mnhn/p/p00195185>.

**Figure 2.** Distribution area of *Nigella damascena* in France during the last two centuries, broken up in 50-year periods. (A–D) Distribution area of the [P] morph. (E–H) Distribution area of the [T] morph.

**Figure 3.** Frequency of [P] and [T] morphs of *Nigella damascena* in a Museum time-series spanning two centuries. (A) Wild specimens. (B) Cultivated specimens.

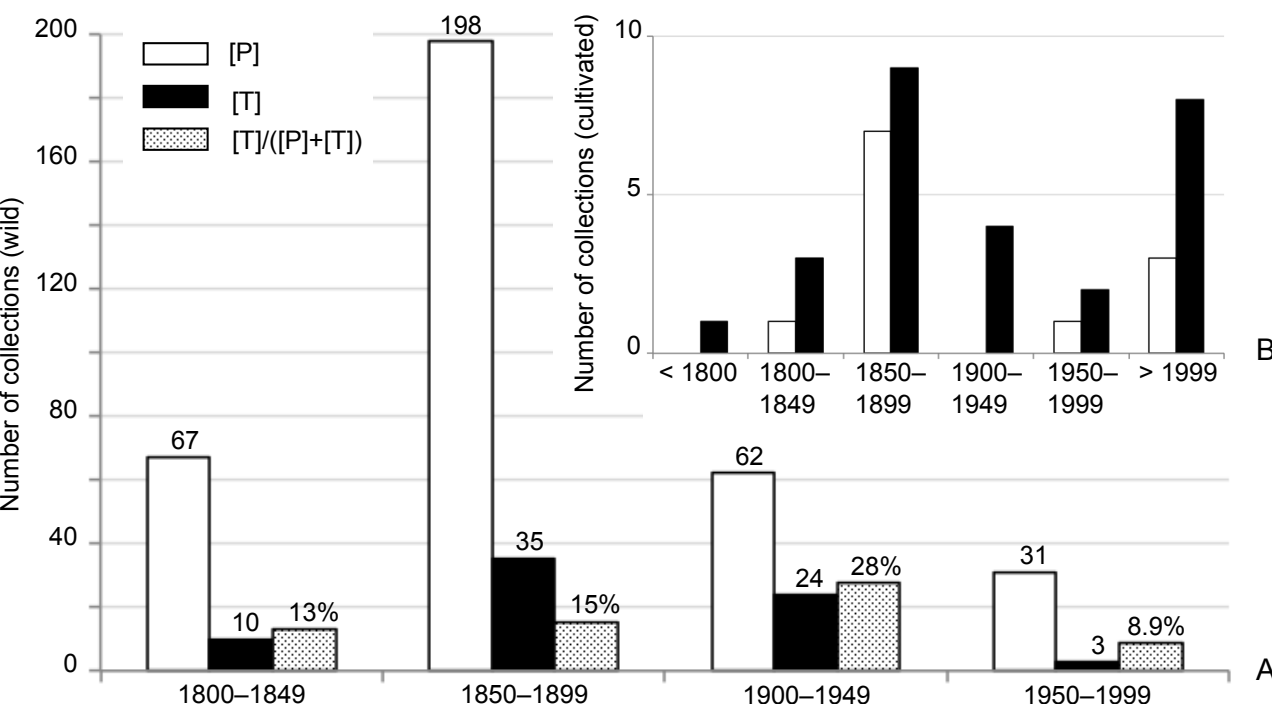
**Figure 4.** Distribution maps of *Nigella damascena* (both morphs, wild and cultivated) based on national and regional databases. (A) Number of observations adapted from the SIFlore dataset. (B) Collection dates adapted from the SIFlore dataset. (C) Occurrence data adapted from the INPN dataset.

**Supplementary Table 1.** Herbarium specimens of *Nigella damascena* collected in France, label data transcribed and interpreted. For each specimen, the data is organized into 16 fields: (A) Herbarium code. (B) Barcode or reference in the herbarium. (C) Collector's name. (D) Collection number. (E–G) Day, month and year of collection. (H) Country of origin, transcribed from the label or interpreted. Current country names are provided. (I) Collection locality. (J) Other notes on the label. (K) Is there anything on the label specifying that the specimen was in cultivation at the time of collection? (L) Assumption that the specimen was in cultivation at the time of collection. (M) Presence of flower(s). (N) Flower morph. (O)

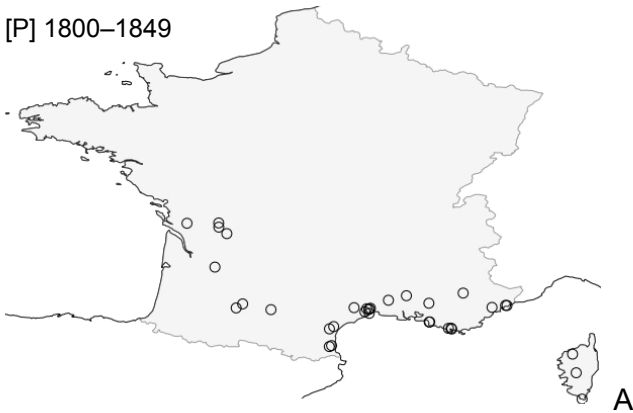


Presence of capsule(s). (P) GPS coordinates, transcribed from the label or inferred. Except for (H) and (L), all data are transcribed from the label without interpretation or come from the observation of the specimen.

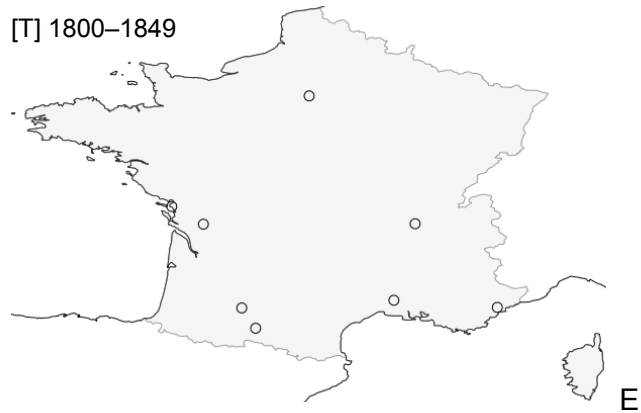
**Supplementary Table 2.** This table corresponds to Supp. Table 1 from which all the entries not taken into consideration (see our sorting procedure in the Materials and Methods section) for building the distribution maps were excluded.



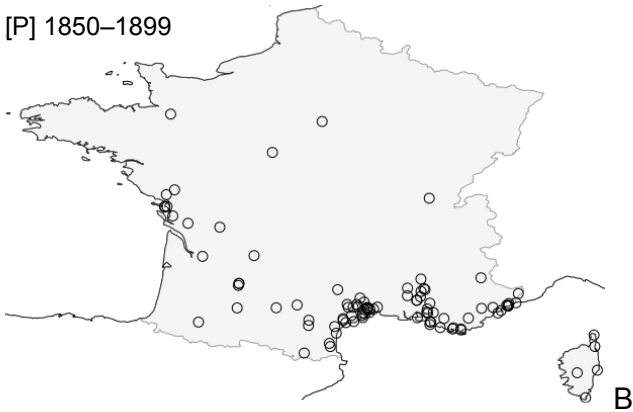
[P] 1800–1849



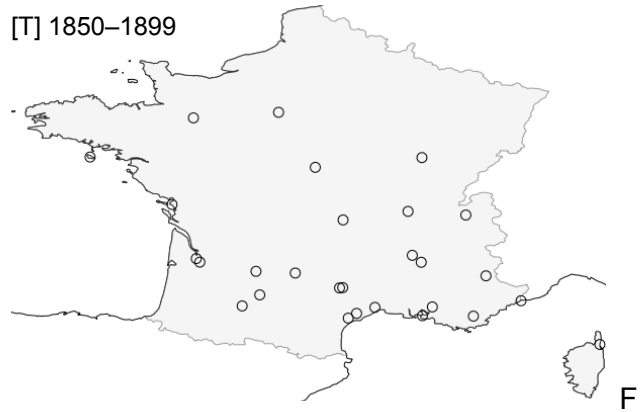
[T] 1800–1849



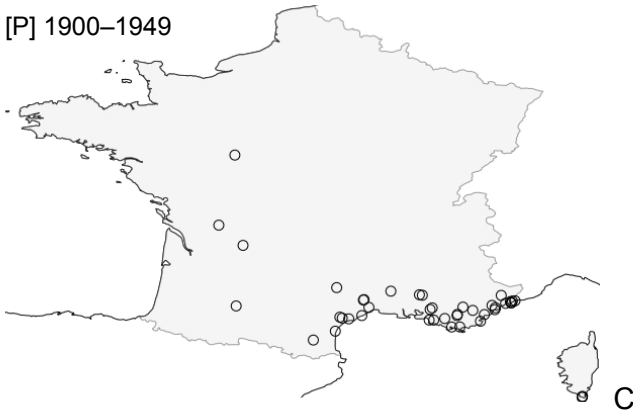
[P] 1850–1899



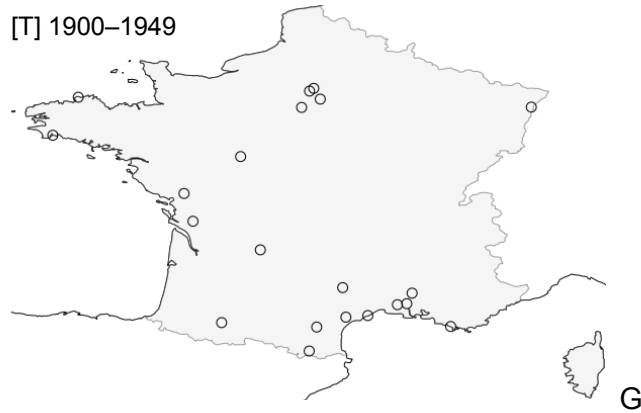
[T] 1850–1899



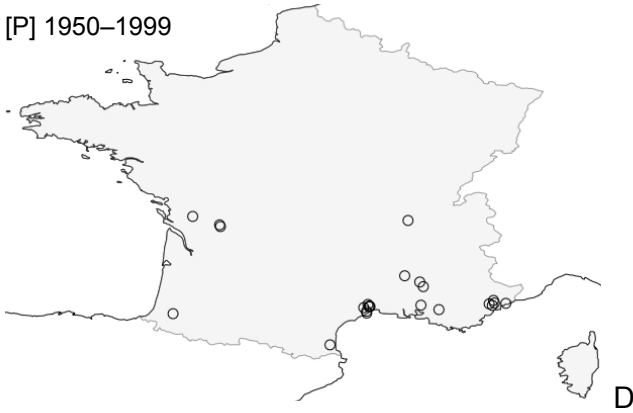
[P] 1900–1949



[T] 1900–1949



[P] 1950–1999



[T] 1950–1999



0 300 km



SOCIÉTÉ FRANÇAISE pour l'ÉCHANGE des  
PLANTES VASCULAIRES-Exsicc. B. de Retz  
Fascicule n° II (1962-1963)

N° 4268 *NIGELLA DAMASCENA* L.

FRANCE (dép. CHARENTE) - Puymoyen,  
champ pierreux un peu au Nord de  
la route de  
Puymoyen à Clairgon, à 1 km env.  
au N-W de Puymoyen, soit à 2,5 km  
au Sud d'Angoulême

22 juin 1962 Leg. & dét. E. Contré

HERBARIUM MUSEI PARIENSIS



A



B

SOCIÉTÉ FRANÇAISE pour l'ÉCHANGE des  
PLANTES VASCULAIRES-Exsicc. B. de Retz  
Fascicule n° II (1962-1963)

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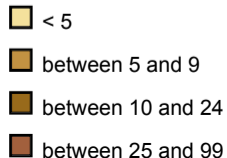
C



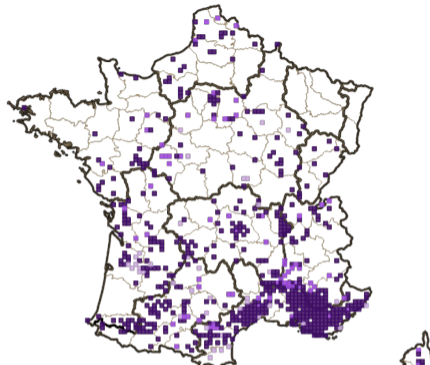
D



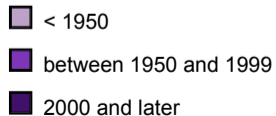
Number of observations (SIFlore)



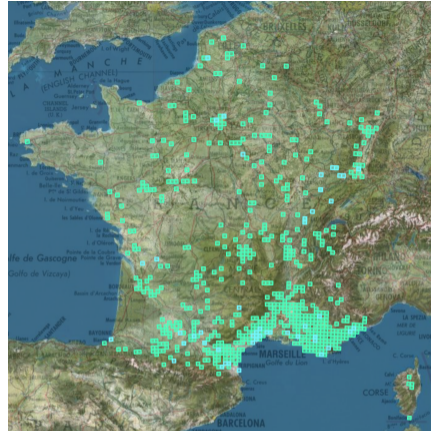
A



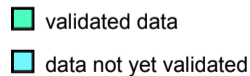
Collection dates (SIFlore)



B



Occurrence data (INPN)



C

Herbarium	Barcode or reference	Collector	Collection number	Collection	
				Day	Month
B	B 10 0525356	F. Schultz	408	26	5
B	B 10 0525364	F. Schultz	408	26	5
B	B 10 0525361	Canut	391	29	5
B	B 10 0525362	Canut	391	29	5
B	B 10 0525394	Héry	s.n.	n.a.	n.a.
B	B 10 0525433	Dr. Wirtgen fil	s.n.	23	7
B	B 10 0525360	leg. ign.	391	n.a.	6
B	B 10 0525432	leg. ign.	26240	10	8
B	B 10 0525359	H.L. Krause	30549	9	7
B	B 10 0525357	H. Beger	s.n.	11	6
B	B 10 0525358	H. Beger	s.n.	12	6
B	B 10 0525355	P. Bamps	9002	12	6
BC	135239	leg. ign.	s.n.	20	5
BC	135240	R. Linder	s.n.	11	7
BC	135238	A. Frizac	s.n.	n.a.	n.a.
BC	833041-2	Sennen	s.n.	27	4
BC	833040-2	C.-A Gérard	s.n.	12	6
BC	833040-2	C.-A Gérard	s.n.	12	6
BC	1523	Marnac	s.n.	19	6
BC	833042-2	Sennen	s.n.	n.a.	6
BC	1543	L. Samat	6059	25	5
BC	373730-3	G. Gavelli	s.n.	5	6
BC	135237	Gerclard	s.n.	4	9
BC	834564	P. Bamps	15013	12	6
BEI	n.a.	J.J.M.	s.n.	12	5
BM	BM001209513	E. Bourgeau	2	25	5
BM	BM001209454	J.M. Delalande	s.n.	n.a.	9
BM	BM001209450	M. Prost	s.n.	n.a.	6
BM	BM000984476	J. Revellière	8	14	6
BM	BM001209512	J.C. Ducommun	s.n.	26	5
BM	BM001209455	F.S.A. Augé de Lassus	s.n.	10	6
BM	BM001209511	H. Hanry	3003	6--3	5--6
BM	BM001209509	E. Miciol	s.n.	4	6
BM	BM000649099	[illegible]	s.n.	30	6
BM	BM000984501	P.A. Kesselmeier	s.n.	n.a.	6
BM	BM000984475	J-O. Debeaux	s.n.	30	5
BM	BM001209453	E.J. de Puyfol	s.n.	13	5
BM	BM001209451	L. Anthouard	s.n.	9	6
BM	BM001209452	A. Cartier	1487	20	5
BM	BM001209505	E. Marçais	s.n.	n.a.	6--7
BM	BM001209412	E. Reverchon	s.n.	14	6
BM	BM001209507	N.D. Simpson	36543	n.a.	5

BM	BM000984490	R.P. Murray	s.n.	10	7
BM	BM000984489	R.P. Murray	s.n.	15	7
BM	BM000984488	J. Bruneau	s.n.	19	6
BM	BM001209508	J. Lloyd	s.n.	20	4
BM	BM001209510	E.J.A. Gadeceau	s.n.	2	6
BM	BM001209514	V. Bonafons	s.n.	n.a.	6
BM	BM001209506	Septimin-Donat	111	8	6
BM	BM000649100	P.R. Lowe	s.n.	22	5
BM	BM000649110	J. Roffey	s.n.	15	6
BM	BM001209515	L. Samat	6059	25	5
BM	BM001209447	L. Samat	6059	25	5
BM	BM000649076	P.J.R. Bamps	9002	12	6
BM	BM000984492	A.A. du Petit-Thouars	s.n.	n.a.	n.a.
BM	BM000984491	F.I.X. Rugel	s.n.	n.a.	n.a.
CAI	n.a.	P.F.A. Irat	408	26	5
E	E00743401	Seringe	s.n.	n.a.	n.a.
E	E00743450	G.W. Arnott	s.n.	18	5
E	E00743402	Seringe	7	18	5
E	E00743403	Seringe	127	22	5
E	E00743439	F. Kuyes (?)	s.n.	n.a.	6
E	E00743413	F. Rugel	s.n.	n.a.	6
E	E00743413	F. Rugel	s.n.	n.a.	5
E	E00445049	leg. ign.	s.n.	n.a.	6
E	E00743421	J. Ball	s.n.	22	6
E	E00743410	O. Debeaux	s.n.	24	5
E	E00743409	H. Hanry	s.n.	n.a.	5
E	E00743408	E. Reverchon	340	10	7
E	E00743407	Elisée Reverchon	340	14	6
E	E00743451	E. Reverchon	s.n.	17	6
E	E00743432	E. Reverchon	s.n.	19	6
E	E00743396	Elisée Reverchon	s.n.	19	6
E	E00743419	G. Bentham	s.n.	n.a.	n.a.
E	E00743418	W. Wilson Saunders	s.n.	n.a.	n.a.
E	E00743419	leg. ign.	s.n.	n.a.	n.a.
FI	DSN112	Durando (?)	s.n.	14	6
FI	DSN107	Reuter	s.n.	n.a.	8
FI	DSN439	P.F.A. Irat	s.n.	n.a.	9
FI	DSN417	C. Marchesetti	408	26	5
FI	DSN384	A. Chabers (?)	s.n.	n.a.	6
FI	DSN444	Ch. Pontarlier	s.n.	n.a.	6--7
FI	DSN108	Parlatere	s.n.	22	6
FI	DSN427	Masson (?)	s.n.	27	5
FI	DSN431	H. Hervier-Basson	s.n.	27	5
FI	DSN426	A. Cartier	1487	20	5

FI	DSN385	A. Chabers	s.n.	17	6
FI	DSN443	V. Bach	s.n.	n.a.	7
FI	DSN425	Daides (?)	s.n.	n.a.	n.a.
FI	DSN104	Etienne Bourgeau	s.n.	n.a.	5
FI	DSN445	Franqueville	s.n.	n.a.	12
FI	DSN446	C. Flahault	s.n.	14	6
FI	DSN423	G. Gavelle	s.n.	5	6
FI	DSN453	P. Bamps	9002	12	6
FI	DSN448	E. Levier	s.n.	n.a.	5
FR	FR-0121334	J.-C. Ducommun	s.n.	26	5
FR	FR-0121331	P.A. Kesselmeier & E. Ra	s.n.	20	6
FR	FR-0121332	A. Cartier	1487	20	5
FR	FR-0030911	Elisée Reverchon	340	14	6
FR	FR-0030912	Elisée Reverchon	340	14	6
FR	FR-0121333	N.Ch. Pontarlier	s.n.	1	7
FR	FR-0121325	J. de Vichet	s.n.	n.a.	6--7
FR	FR-0121340	C. de Stefani	s.n.	n.a.	n.a.
FR	FR-0121345	Stifani	s.n.	4	7
FR	FR-0121347	R. Weber	s.n.	n.a.	5
FR	FR-0121376	Diomède	s.n.	n.a.	n.a.
G	P6094975	Choisy	s.n.	n.a.	n.a.
G	P6095020	Rodolph Rapin	s.n.	5	6
G	P6094885	Requien	s.n.	n.a.	n.a.
G	P6014889	Fauché	s.n.	n.a.	n.a.
G	P6094976	A. de St Hilaire	s.n.	n.a.	6
G	P6094908	Huet du Pavillon	s.n.	22	5
G	P6014884	J. Lloyd	s.n.	23	6
G	P6014882	Reuter	s.n.	n.a.	n.a.
G	P6095091	Dr. Friedrich Sigmund Al	s.n.	n.a.	7
G	P6094977	Dr. Friedrich Sigmund Al	s.n.	4	7
G	P6095063	Dr. Dupin	s.n.	n.a.	6
G	P6094904	E. Ayasse	s.n.	4	5
G	P6095008	E. Ayasse	s.n.	n.a.	5
G	P6094978	Dr. Friedrich Sigmund Al	s.n.	10	6
G	P6095061	Bélanger	s.n.	n.a.	n.a.
G	P6094982	Bélanger	s.n.	n.a.	n.a.
G	P6095076	Fasson	s.n.	26	4
G	P6094909	Alph. Moritz	s.n.	10	5
G	P6094905	Ch. Verrier Livardière	s.n.	1	6
G	P6094973	J.L.A. Bonneau	s.n.	2	7
G	P6094887	Dr. A. Béatrix	s.n.	10	6
G	P6094985	Bélanger	s.n.	n.a.	5
G	P6095059	Louis Amblard	s.n.	20	8
G	P6095070	Baraize, A. Perrier	s.n.	n.a.	6



G	P6095069	Roux, A. Perrier	s.n.	n.a.	n.a.
G	P6094888	W. Gugelmann	37/224	18	6
G	P6094911	Louis-André Girod	s.n.	n.a.	6
G	P6094907	M.K. Faust	s.n.	26	5
G	P6014916	D. Champagneux	s.n.	26	5
G	P6094996	Simone Vautier	s.n.	13	6
G	P6094928	Duperrex-Weber	s.n.	14	6
G	P6094927	Duperrex-Weber	s.n.	8	6
G	P6094995	L. Vautier	s.n.	24	5
G	P6094980	Charles Bélanger	s.n.	n.a.	n.a.
G	P6094983	Dr. Montagne	s.n.	n.a.	n.a.
G	P6094972	Chambion (?)	s.n.	n.a.	6
G	P6094971	Cadet	s.n.	n.a.	6
G	P6095066	Delessert	s.n.	n.a.	n.a.
G	P6094979	Garrot	s.n.	n.a.	n.a.
G	P6094886	Abbé Roquebrune	s.n.	n.a.	7
G	P6094884	Ph. Dunant	s.n.	n.a.	n.a.
G	P6014878	Boissier	s.n.	n.a.	n.a.
G	P6014890	leg. ign.	s.n.	n.a.	n.a.
HUJ	HUJHERB 131645	A. Eig	s.n.	28	6
HUJ	HUJHERB 131640	A. Eig	s.n.	17	3
HUJ	HUJHERB 131644	A. Danin	72-14-23	13	6
K	K001092999	leg. ign.	7	18	5
K	K001042848	E. Serafino	1487.1	n.a.	3
K	K001042835	Liendon	s.n.	n.a.	6
K	K001042840	E. Bourgeau	2	25	5
K	K001042809	E. Reverchon	s.n.	26 & 6	6 & 8
K	K001042836	Canut	s.n.	29	5
K	K001042801	leg. ign.	s.n.	3	4
K	K001042805	J.M.H. Borel	s.n.	10	6
K	K001042800	leg. ign.	s.n.	14	5
K	K001042815	J.C. Joad	s.n.	24	4
K	K001092994	Ed. Bonnet	s.n.	4	9
K	K001092996	A. Cartier	s.n.	20	5
K	K001092995	Ed. Marçais	s.n.	n.a.	6--7
K	K001092997	P.	s.n.	n.a.	7
K	K001042806	E. Ellman & N.Y. Sandwy	99	6	6
K	K001042810	J. Souster	1288	15	6
K	K001264473	leg. ign.	144-70-01311	26	8
K	K001042804	F.N. Hepper	8945	26	5
K	K001042881	D.C.	s.n.	n.a.	n.a.
K	K001042918	Requien	s.n.	n.a.	n.a.
K	K001264135	M. Requien	s.n.	n.a.	n.a.
K	K001042807	Lombardelly	s.n.	n.a.	6

K	K001042811	leg. ign.	s.n.	n.a.	n.a.
K	K001042814	J. Kutler (?)	s.n.	n.a.	n.a.
K	K001042808	J.M.H. Borel	s.n.	n.a.	n.a.
MA	MA-01-00156308	Mutel	s.n.	n.a.	5
MA	MA-01-00038766	P.F.A. Irat	408	26	5
MA	MA-01-00038767	F. Bruyas	2629	n.a.	6
MA	MA-01-00038765	Fre. Sennen	s.n.	6	7
MA	MA-01-00471257	L. Samat	s.n.	25	5
MA	MA-01-00650348	J.F. de Witte	15027	19	5
MA	MA-01-00191210	G. Gavelle	s.n.	5	6
MA	MA-01-00290893	G. Gavelle	s.n.	11	6
MA	MA-01-00290896	G. Gavelle	s.n.	15	7
MA	MA-01-00650332	J.F. de Witte	15814	20	5
MA	MA-01-00650333	J.F. de Witte	16909	13	6
MA	MA-01-00650349	J.F. de Witte	16269	2	6
MA	MA-01-00204222	Bellot, Casaseca & Cast	s.n.	25	5
MA	MA-01-00532346	P. Bamps	9002	12	6
MEL	MEL-2407544	Viguiet	s.n.	n.a.	7
MEL	MEL-2319016	John Stuart Mill	s.n.	n.a.	5
MEL	MEL-2407545	Canut	s.n.	29	5
MEL	MEL-2407553	Huguenin	s.n.	n.a.	n.a.
MEL	MEL-2407554	leg. ign.	s.n.	n.a.	n.a.
MEL	MEL-2407555	leg. ign.	s.n.	n.a.	n.a.
MEL	MEL-2407558	Suffren	s.n.	n.a.	n.a.
MPU	n.a.	Herbier fac de médecine	s.n.	n.a.	n.a.
MPU	n.a.	Guillon	s.n.	16	6
MPU	n.a.	Herbier fac de médecine	s.n.	2	6
MPU	n.a.	Dunal	s.n.	31	5
MPU	n.a.	Cambessèdes	s.n.	17	6
MPU	n.a.	F. de Girard	s.n.	25	6
MPU	n.a.	Guillon	s.n.	n.a.	6
MPU	n.a.	A. Irat	s.n.	n.a.	5
MPU	n.a.	E. Cosson	s.n.	4	6
MPU	n.a.	L. Liendon	391 a	n.a.	6
MPU	n.a.	L. Liendon	391a	n.a.	6
MPU	n.a.	Planchon	s.n.	n.a.	5
MPU	n.a.	Liendon	391	n.a.	6
MPU	n.a.	Guillon	s.n.	2	7
MPU	n.a.	P.F.A. Irat	s.n.	n.a.	9
MPU	n.a.	P.F.A. Irat	s.n.	26	5
MPU	n.a.	P.F.A. Irat	408	26	5
MPU	n.a.	E. Le Sourd-Dussisples	s.n.	n.a.	5
MPU	n.a.	B. Mouly	300	n.a.	n.a.
MPU	n.a.	Hubert	s.n.	21	6

MPU	n.a.	Dr Le Sourd	s.n.	26	6
MPU	n.a.	Planchon	s.n.	n.a.	6
MPU	n.a.	L. Pierre	s.n.	n.a.	n.a.
MPU	n.a.	H. Hanry	s.n.	6	5
MPU	n.a.	H. Hanry	3003	6	5
MPU	n.a.	Canut	391	29	5
MPU	n.a.	Dr Le Sourd	s.n.	29	5
MPU	n.a.	Aubouy	s.n.	3	6
MPU	n.a.	leg. ign.	s.n.	20	5
MPU	n.a.	Herbier André	s.n.	n.a.	n.a.
MPU	n.a.	Dr Le Sourd	s.n.	n.a.	5
MPU	n.a.	Aubouy	s.n.	18	5
MPU	n.a.	Aubouy	s.n.	29	5
MPU	n.a.	Brunet	s.n.	20	5
MPU	n.a.	Bernardin Martin	s.n.	n.a.	6
MPU	n.a.	A. Tholin	s.n.	n.a.	4
MPU	n.a.	Neyra	s.n.	23	5
MPU	n.a.	A.B.	s.n.	22	6
MPU	n.a.	Aubouy	s.n.	4	7
MPU	n.a.	Reverchon	s.n.	11 & 18	6 & 8
MPU	n.a.	A. Cartier	s.n.	20	5
MPU	n.a.	A. Cartier	s.n.	20	5
MPU	n.a.	J. Daveau	s.n.	n.a.	5
MPU	n.a.	E. Reverchon	340	14	6
MPU	n.a.	André	s.n.	n.a.	n.a.
MPU	n.a.	Aubouy	s.n.	30	6
MPU	n.a.	J.B. Barla	s.n.	8	6
MPU	n.a.	E.J. Neyraut	s.n.	29	5
MPU	n.a.	docteur E. Magnol	s.n.	n.a.	6
MPU	n.a.	F. Mouret	s.n.	n.a.	6
MPU	n.a.	E.J. Neyraut	4794	3	6
MPU	n.a.	E.J. Neyraut	4794	3	6
MPU	n.a.	E. Magnol	s.n.	22	6
MPU	n.a.	Herbier C. Flahaut	s.n.	14	6
MPU	n.a.	Aubouy	s.n.	31	5
MPU	n.a.	Abbe A. Pons	s.n.	12	6
MPU	n.a.	F. Bruyas	2629	n.a.	6
MPU	n.a.	F. Bruyas	s.n.	n.a.	6
MPU	n.a.	A. Guillon	s.n.	7	7
MPU	n.a.	E.J. Neyraut	s.n.	28	5
MPU	n.a.	C. Copineau	s.n.	26	5
MPU	n.a.	Ecole St Paul	s.n.	28	6
MPU	n.a.	Bertrand	217	10	6
MPU	n.a.	Dr. Jouvence (?)	s.n.	n.a.	5

MPU	n.a.	A. Raphélis	s.n.	n.a.	5
MPU	n.a.	Faure	120	3	6
MPU	n.a.	Faure	s.n.	3	6
MPU	n.a.	A. Bourgeois	s.n.	n.a.	7
MPU	n.a.	Fourès	s.n.	n.a.	8
MPU	n.a.	Frère Sennen	s.n.	n.a.	n.a.
MPU	n.a.	Frère Sennen	s.n.	n.a.	n.a.
MPU	n.a.	Cassat	s.n.	5	7
MPU	n.a.	Frère Sennen	s.n.	n.a.	n.a.
MPU	n.a.	C.A. Gérard	4674	12	6
MPU	n.a.	Frère Sennen	s.n.	n.a.	5
MPU	n.a.	C.A. Gérard	4674	12	6
MPU	n.a.	A. Guillon	s.n.	30	6
MPU	n.a.	J. Stefani	s.n.	10	6
MPU	n.a.	Fourès	s.n.	n.a.	6
MPU	n.a.	E.J. Neyraut	s.n.	30	5
MPU	n.a.	J. de Vichet	s.n.	12	6
MPU	n.a.	J. de Vichet	s.n.	28	5
MPU	n.a.	P. Cousturier	s.n.	n.a.	4
MPU	n.a.	Albaille	s.n.	15	4
MPU	n.a.	J.B. Renaud	s.n.	5	6
MPU	n.a.	L. Samat	6059	25	5
MPU	n.a.	E.J. Neyraut	s.n.	14	10
MPU	n.a.	leg. ign.	s.n.	12	6
MPU	n.a.	S.J. Albaille	s.n.	13	6
MPU	n.a.	S.J. Albaille	s.n.	13	6
MPU	n.a.	S.J. Albaille	s.n.	10--20	6
MPU	n.a.	G. Gavelle	4269	15	6
MPU	n.a.	G. Blanchet	s.n.	n.a.	6
MPU	n.a.	G. Blanchet	s.n.	12	6
MPU	n.a.	Santo	s.n.	12	6
MPU	n.a.	E.J. Neyraut	s.n.	29--1	5--7
MPU	n.a.	Aucher (?)	55	n.a.	n.a.
MPU	n.a.	Massot	s.n.	n.a.	n.a.
MPU	n.a.	Herbier Albaille	s.n.	n.a.	n.a.
MPU	n.a.	J.B. Renaud	111	5	6
MPU	n.a.	S.J. Albaille	301	n.a.	n.a.
MPU	n.a.	Abbé Gausserand	s.n.	n.a.	n.a.
MPU	n.a.	Dr Le Sourd	s.n.	n.a.	n.a.
MPU	n.a.	Lourbarelle (?)	s.n.	n.a.	n.a.
MPU	n.a.	Raphélis	s.n.	n.a.	6--7
P	P02575135	leg. ign.	685	n.a.	7
P	P03175036	leg. ign.	117	22	5
P	P03174919	Jacquemont	s.n.	n.a.	5

P	P03175003	Leman	s.n.	n.a.	n.a.
P	P03174952	A.P. de Candolle	s.n.	n.a.	n.a.
P	P02391519	Maire	s.n.	n.a.	7
P	P02810831	M. Emerie (?)	s.n.	n.a.	n.a.
P	P03175035	H. de la Perraudière	s.n.	n.a.	n.a.
P	P03175014	W. de Schoenefeld	s.n.	n.a.	n.a.
P	P02574937	J.M. Despreaux	s.n.	n.a.	4
P	P03174939	M. Bentham	s.n.	n.a.	n.a.
P	P02391570	R.	s.n.	n.a.	6
P	P02391570	R.	s.n.	n.a.	6
P	P02575181	Dunal	s.n.	n.a.	n.a.
P	P03174925	Perreymond	s.n.	n.a.	n.a.
P	P03174938	A. Lenormand	s.n.	n.a.	n.a.
P	P02699559	Grémer	s.n.	25	7
P	P02391520	[illegible]	s.n.	17	7
P	P02391512	P.F.A. Irat	753	15	6
P	P03174931	Née (?)	s.n.	n.a.	n.a.
P	P03175006	Callou (?)	s.n.	n.a.	7
P	P02575078	A. de St Hilaire	s.n.	n.a.	6
P	P03174978	P.F.A. Irat	s.n.	n.a.	9
P	P03174954	A. de St Hilaire	s.n.	n.a.	6
P	P03174974	Schler (?)	s.n.	n.a.	5
P	P02391534	A. Hertz (?)	s.n.	5	8
P	P03174947	A. de St Hilaire	s.n.	n.a.	6
P	P02575074	Cavalier	s.n.	n.a.	n.a.
P	P02575099	A. de St Hilaire	s.n.	n.a.	6
P	P02575069	Fée	s.n.	n.a.	n.a.
P	P03175022	Henrici Lartigue	s.n.	15	7
P	P02391570	Auzende	s.n.	4	6
P	P02391570	Auzende	s.n.	4	6
P	P02575075	F. Clement	s.n.	n.a.	n.a.
P	P02575186	A.G. de Dives	18	10	6
P	P03174965	De Lort	s.n.	n.a.	n.a.
P	P03174951	Dr. Grenier	s.n.	n.a.	7
P	P03174979	A. Leclerc	s.n.	n.a.	8
P	P02575080	Boyé	50	n.a.	n.a.
P	P02575073	L. Kralik	1849	4	6
P	P03175011	Liendon	s.n.	n.a.	n.a.
P	P03174935	Liendon	s.n.	n.a.	6
P	P02569728	Liendon	391a	n.a.	6
P	P03175004	E. Bourgeau	2	25	5
P	P03175012	E. Bourgeau	2	25	5
P	P03175022	E. Bourgeau	2	25	5
P	P03175027	E. Bourgeau	2	25	5

P	P02569980	Irat P.F.A.	408	26	5
P	P02569654	Irat P.F.A.	408	26	5
P	P02391587	Irat P.F.A.	408	26	5
P	P02391513	O. Debeaux	s.n.	n.a.	6
P	P02575079	Maréchal de Bontarly (?)	s.n.	n.a.	6
P	P03175018	A. Guillon	s.n.	11	6
P	P03175029	Leclerc	s.n.	n.a.	n.a.
P	P02530409	Orth. André	s.n.	n.a.	6
P	P02575156	E. Mouillefarine	3	n.a.	7
P	P02575180	J. Lloyd	s.n.	n.a.	6
P	P03174969	Ch. Gontartiez	s.n.	n.a.	7--8
P	P02575209	Ch. Pontarlier	s.n.	n.a.	6
P	P03174964	Louis Amblard	s.n.	21	6
P	P02575065	Loret	s.n.	n.a.	n.a.
P	P02575208	Institut Botanique de Ca	s.n.	n.a.	9
P	P02575066	leg. ign.	s.n.	n.a.	8--9
P	P02530404	Orth. André	s.n.	15	7
P	P03174968	Lepeltier	s.n.	n.a.	7
P	P03175037	Ripart	s.n.	n.a.	8
P	P03174967	Eloy de Vicq	s.n.	20	9
P	P03174994	J. Parseval	s.n.	7	6
P	P02569726	Laguesse A.	s.n.	17	6
P	P02530407	L'Abbé Lelièvre	s.n.	27	6
P	P03175031	leg. ign.	s.n.	27	5
P	P03174928	C. Billot	3003 (1868 n°6)	n.a.	5--6
P	P03175023	C. Billot	3003	n.a.	5--6
P	P03175005	C. Billot	3003	n.a.	5--6
P	P03174977	Ch. Ozanon	s.n.	n.a.	6
P	P03174963	Ch. Ozanon	s.n.	n.a.	6
P	P03174926	G. Thuret	61	20	6
P	P03175034	H. de la Perraudière	s.n.	27	6
P	P02575100	H. Hanry	3003	6	5
P	P02575068	H. Hanry	3003	6	5
P	P02575160	H. Hanry	3003	6	5
P	P02530405	L'Abbé Lelièvre	s.n.	3	6
P	P02575210	D.M. Roux	s.n.	n.a.	6
P	P03175002	[illegible]	s.n.	n.a.	4
P	P02570013	E. Bourgeau	s.n.	17	5
P	P03175024	E. Bourgeau	s.n.	27	5
P	P03175030	E. Bourgeau	s.n.	27	5
P	P03174944	E. Bourgeau	s.n.	27	5
P	P03174994	E. Bourgeau	s.n.	27	5
P	P02570012	Canat	s.n.	29	5
P	P03174945	Canut	s.n.	29	5

P	P03175028	Canut	s.n.	29	5
P	P03175020	Canut	s.n.	29	5
P	P03174995	Canut	s.n.	29	5
P	P02569978	Canut	391	29	5
P	P03174953	Dr Lebel	s.n.	n.a.	6
P	P00799039	Canut	391	29	5
P	P00685973	A. Legrand	s.n.	1	7
P	P03174962	Dr Bras	s.n.	21	7
P	P03175017	Bocquillon	s.n.	n.a.	6
P	P02569725	Th. Delacour	s.n.	n.a.	6
P	P02575067	E.M. Sauvage	s.n.	27	5
P	P03174923	Marcilly	s.n.	29	5
P	P03174927	Bureau	s.n.	22	5
P	P03175038	Lefèvre	s.n.	3	8
P	P03175001	A. Franchet	s.n.	n.a.	6
P	P03174943	leg. ign.	s.n.	12	6
P	P02569729	Th. Delacour	s.n.	26	5
P	P02570028	Grandclément	s.n.	n.a.	n.a.
P	P02569657	C. Damiens	s.n.	4--5	6
P	P02391605	H. van Heurck	s.n.	n.a.	n.a.
P	P02569716	Eugène	s.n.	15	6
P	P03174997	O. Debeaux	s.n.	6	6
P	P02305581	Warnier	22	n.a.	n.a.
P	P02569999	X. Vendrely	s.n.	16	6
P	P02575211	Chauvin	s.n.	n.a.	6
P	P02569998	H. Hervier-Basson	s.n.	27	5
P	P02570065	leg. ign.	s.n.	29	5
P	P02570076	Société de Champagne	s.n.	n.a.	n.a.
P	P02570009	Th. Delacour	s.n.	27	5
P	P02570001	Ch. Pontarlier	s.n.	4	7
P	P03175033	M. Franchet	s.n.	n.a.	n.a.
P	P02569656	Th. Delacour	s.n.	1--2	7
P	P05591715	leg. ign.	s.n.	n.a.	n.a.
P	P02569993	H(?)aures	s.n.	n.a.	5
P	P03174949	J. Daneau	s.n.	n.a.	5
P	P02569979	L. Anthouard	s.n.	1	6
P	P03174940	leg. ign.	s.n.	n.a.	5
P	P02530406	R.B.	s.n.	4	7
P	P03174993	A. Cartier	s.n.	n.a.	5
P	P02570004	J. Gautier-Lacroze	s.n.	n.a.	6
P	P02391550	A. Cartier	1487	20	5
P	P03174929	A. Cartier	1487	20	5
P	P02569995	A. Cartier	1487	20	5
P	P02570014	A. Cartier	1487	20	5

P	P03174990	E. Reverchon	s.n.	27	6
P	P03174987	Ed. Marçais	s.n.	n.a.	8
P	P02575169	J. Daveau	s.n.	28	5
P	P02575207	E. Marçay	s.n.	n.a.	6--7
P	P02569994	E. Marçay	s.n.	n.a.	6--7
P	P02570005	E. Marçay	s.n.	n.a.	6--7
P	P02391524	leg. ign.	s.n.	20	7
P	P03174988	V. Retalon (or Metalon?)	s.n.	20	8
P	P03174933	E. Reverchon	340	14	6
P	P03175009	E. Reverchon	340	14	6
P	P03174973	E. Reverchon	340	14	6
P	P02569727	E. Reverchon	340	14	6
P	P02570113	J.B. Barla	s.n.	n.a.	6
P	P02391544	C. Ozanon	s.n.	25	8
P	P02570000	C. Ozanon	s.n.	25	8
P	P03174976	leg. ign.	s.n.	12	9
P	P03175000	Flahaut	s.n.	n.a.	n.a.
P	P02569655	Th. Delacour	s.n.	10	6
P	P03174934	E. Reverchon	s.n.	14	6
P	P03174992	E. Reverchon	s.n.	19	6
P	P03174946	E. Reverchon	s.n.	n.a.	n.a.
P	P02570104	leg. ign.	s.n.	6	7
P	P02391577	Ch. Ozanon, Dr. Gillot	s.n.	22	7
P	P03175026	Ch. Ozanon, Dr. Gillot	s.n.	22	7
P	P03156804	Ch. Ozanon, Dr. Gillot	s.n.	22	7
P	P03174986	L. Chevallier	s.n.	22	6
P	P03175021	V. Auzat	s.n.	28	7
P	P02575182	E. Jeanpert	s.n.	n.a.	9
P	P02570067	C. Copineau	s.n.	15	6
P	P02570008	F. Bruyas	2629	n.a.	6
P	P03174991	F. Bruyas	2629	n.a.	6
P	P03174998	F. Bruyas	2629	n.a.	6
P	P03174941	F. Bruyas	2629	n.a.	6
P	P02391521	Hubert	s.n.	21	6
P	P02575185	J.B. Barla	s.n.	30	5
P	P02570027	X. Vendrely	s.n.	n.a.	n.a.
P	P02575204	E. Dupuy	s.n.	n.a.	6
P	P02575184	J.B. Barla	s.n.	23	5
P	P02570006	L. Conill	s.n.	18	5
P	P02575096	Ch. Hermant	s.n.	n.a.	6--7
P	P02575206	S. Savouré	562c	7	6
P	P02575219	J. Bozon	s.n.	12	6
P	P03174980	R. Rotgès	s.n.	28	5
P	P02575183	Cassat	s.n.	5	7



P	P02570098	Fre Sennen	s.n.	n.a.	n.a.
P	P03175040	H. Coste	s.n.	13	7
P	P02575205	S. Savouré	695	16	11
P	P02569976	A. Cassat	s.n.	18	7
P	P03175015	Bécon	312	22	7
P	P02570111	H. Coste	323	n.a.	7
P	P03174996	C.-A. Gérard	4674	12	6
P	P03175007	C.-A. Gérard	4674	12	6
P	P02570099	Stéfani	4674	12	6
P	P02575188	J. Strici	s.n.	29	4
P	P02575187	Ciprillon	s.n.	30	6
P	P03175025	Hoschedé	s.n.	17	6
P	P02569730	Sennen	s.n.	n.a.	5
P	P02575189	E. Coraze	s.n.	25	6
P	P00620192	Legris	s.n.	3	7
P	P04560803	Legris	s.n.	3	7
P	P02523825	Ch. Guffroy	111	n.a.	n.a.
P	P03174950	G. Hibon	111	n.a.	n.a.
P	P03174942	G. Hibon	111	n.a.	6
P	P02575157	W.R. Fontan	s.n.	15	6
P	P02570101	Port	s.n.	13	8
P	P02570102	Port	s.n.	13	8
P	P02570110	L. Bee	321	n.a.	6
P	P03175013	Dr. Lermoyez	93	n.a.	n.a.
P	P02575137	J. de Vichet	s.n.	n.a.	6
P	P02575095	Ch. Guffroy	s.n.	n.a.	n.a.
P	P03174982	A. et E.G. Camus	s.n.	19	6
P	P02575098	Ch. Guffroy	s.n.	19	6
P	P03174948	Humbert	s.n.	6	6
P	P03174983	A. et E.G. Camus	s.n.	2	7
P	P03174959	Camus	s.n.	11	6
P	P03174984	E.G. Camus	s.n.	n.a.	6
P	P03174966	L'abbé Somers	s.n.	15	1
P	P02575167	J.J. Weber	s.n.	2	6
P	P02575164	J.J. Weber	s.n.	29	5
P	P02575077	J.B. Renaud	s.n.	n.a.	5--6
P	P02575101	J.B. Renaud	s.n.	n.a.	5--6
P	P02559213	Jean Guillet	93	29	7
P	P03174985	A. Camus	s.n.	n.a.	10
P	P03175016	L. Rodriguez	s.n.	7	9
P	P02570112	J. Arènes	324	n.a.	5
P	P03174961	M. Hickel	s.n.	n.a.	6
P	P02569977	L. Giraudias	s.n.	n.a.	7
P	P02575165	Melle Humbert	s.n.	n.a.	5

P	P02570066	leg. ign.	s.n.	6	5
P	P03174958	Mariane de Gougerot-Ni	s.n.	n.a.	n.a.
P	P02575166	J. Arbost	s.n.	15	6
P	P03174956	Mariane de Gougerot-Ni	s.n.	n.a.	7
P	P02575146	B. de Retz	273	20	7
P	P02575144	B. de Retz	284	21	7
P	P03174957	Mariane de Gougerot-Ni	s.n.	n.a.	n.a.
P	P03174955	Mariane de Gougerot-Ni	s.n.	v	6
P	P02575138	L. Samat	6059	25	5
P	P02575139	L. Samat	273 bis	25	5
P	P02570109	L. Samat	322	25	5
P	P02559215	CL. Legros	s.n.	5	6
P	P02575178	R. L'Hermite	s.n.	n.a.	6
P	P02575136	B. de Retz	273 ter	14	7
P	P03187614	E. Delpature	s.n.	n.a.	6
P	P02575162	M. Homolle	s.n.	26	6
P	P02575178	R. L'Hermite	s.n.	3	6
P	P04560804	L. Rotereau	s.n.	n.a.	6
P	P02575168	Mme Haffner	s.n.	17	7
P	P02575142	B. de Retz	14753	7	6
P	P02575163	Mme Haffner	s.n.	14	8
P	P03174981	Dr. Defrance	s.n.	n.a.	6
P	P02575072	Bournerias	1534	n.a.	6
P	P00731924	E. Licent	s.n.	3	6
P	P02559210	Henri Bouby	860	n.a.	8
P	P03187615	E. Delpature	s.n.	n.a.	6
P	P02575143	B. de Retz	23558	2	6
P	P02593382	Paul Jovet	s.n.	2	6
P	P02559212	Henri Bouby	10.017	6	6
P	P02559217	J. Raynal	360	n.a.	7
P	P02570100	leg. ign.	s.n.	17	6
P	P02569701	H. Gillet	s.n.	15	5
P	P02575159	B. de Retz	39707	10	6
P	P02575158	B. de Retz	39603	9	6
P	P02559214	J. Charrier	s.n.	19	6
P	P02575097	J. Charrier	3363	30	6
P	P02575140	J. Charrier	3363	30	6
P	P02575147	J. Charrier	3363	30	6
P	P02559216	J. Raynal	2966	13	6
P	P01969279	Paul Jovet	s.n.	7	9
P	P03024565	Jacqueline Tatigne	s.n.	22	6
P	P00056285	P. Jovet	s.n.	26	6
P	P02575070	E. Contré	4268	22	6
P	P02575161	E. Contré	4268	22	6

P	P02575071	Gavelle G.	4269	15	6
P	P02575145	Gavelle G.	4269	15	6
P	P01969527	Paul Jovet	s.n.	21	7
P	P02589843	Paul Jovet	s.n.	13	7
P	P02559211	Henri Bouby	10.000	27	5
P	P03618090	G.G. Aymonin et Moniqu	28281	6	6
P	P03618089	G.G. Aymonin et Moniqu	28271	6	6
P	P03618088	G.G. Aymonin et Moniqu	29529	6--7	6
P	P02582389	F.N. Hepper	8945	26	5
P	P02575141	Bamps	9002	12	6
P	P00247257	Anaclet	s.n.	n.a.	5
P	P04560807	Viel-Cazal	s.n.	n.a.	6
P	P00836295	F. Jabbour, M. Le Guillou	9	6	3
P	P00836297	F. Jabbour, M. Le Guillou	7	6	3
P	P00836301	F. Jabbour, M. Le Guillou	3	6	3
P	P00836302	F. Jabbour, M. Le Guillou	2	6	3
P	P00836303	F. Jabbour, M. Le Guillou	1	6	3
P	P00836296	F. Jabbour, M. Le Guillou	8	6	3
P	P00836298	F. Jabbour, M. Le Guillou	6	6	3
P	P00836299	F. Jabbour, M. Le Guillou	5	6	3
P	P00836300	F. Jabbour, M. Le Guillou	4	6	3
P	P03175010	l'Abbé Pourret	s.n.	n.a.	n.a.
P	P03174972	Requien	s.n.	n.a.	n.a.
P	P03174960	H. dul. (?)	s.n.	n.a.	n.a.
P	P03175019	[illegible]	s.n.	n.a.	n.a.
P	P02391566	Chaubard	s.n.	n.a.	n.a.
P	P02570003	leg. ign.	s.n.	n.a.	n.a.
P	P03174720	l'Abbé Pourret	s.n.	n.a.	n.a.
P	P03175005	A. Gorvioy (?)	s.n.	n.a.	n.a.
P	P02530408	Dr. Miergues (Herbier)	s.n.	n.a.	5
P	P03175008	E. Reverchon	s.n.	14	6
P	P03174999	Ex herb. Marchnis d'A. d	s.n.	n.a.	5
P	P03174936	Giort (?)	s.n.	n.a.	n.a.
P	P02391535	Lamarlière (?)	s.n.	n.a.	n.a.
P	PL02313637	Legris	s.n.	n.a.	n.a.
P	P02391587	Liendon	391	n.a.	n.a.
P	P03175032	Louis Hurot	s.n.	n.a.	n.a.
P	P03174970	leg. ign.	s.n.	n.a.	n.a.
P	P03174989	leg. ign.	s.n.	n.a.	n.a.
P	P03175005	Requien	s.n.	n.a.	n.a.
P	P03174930	A. Franchet	s.n.	n.a.	n.a.
P	P02575154	Berthoumieu	s.n.	n.a.	n.a.
P	P03262078	O.B.	8/293	n.a.	n.a.
P	P02575076	Sarmentier	s.n.	n.a.	n.a.

P	P02874246	Dumont D'Urville	s.n.	n.a.	n.a.
P	P02575179	leg. ign.	111 (1534)	n.a.	n.a.
PAL	PAL-Gr 100355	Dr. Antoine Bras	s.n.	21	7
PAL	PAL-Gr 100354	Dr. Antoine Bras	39	27	7
S	S16-2583	Reverchon	s.n.	14	6
S	S16-2850	Ch. Pont[...]	s.n.	1	7
S	S16-2827	Carl de Geer	s.n.	8	4
S	S16-2600	F. Bruyas	2629	n.a.	6
S	S16-2603	Gombault	s.n.	7	6
S	S16-2584	C. Bicknell	s.n.	4	5
S	S14-14265	Hj. & A. Hafstroem	s.n.	18	7
S	S16-2912	Hj. Hafstroem	s.n.	18	7
S	S16-2594	Irat	408	n.a.	5
S	S16-2867	Petit	s.n.	n.a.	n.a.
TO	dscn5665	A. Goiran	s.n.	n.a.	n.a.
TO	dscn5682	[illegible]	s.n.	17	6
TO	dscn5647	Baraize	s.n.	n.a.	6
TO	dscn5653	J.B. Barla	s.n.	23	5
TO	dscn5660	J. Stefani	s.n.	10	6
UPS	V-738373	Meddelad af S.N. Casstrí	s.n.	n.a.	n.a.
UPS	V-738026	A. de Saint-Hilaire	s.n.	n.a.	5
UPS	V-738322	Smet[...] (?)	s.n.	n.a.	5
UPS	V-738323	A. Théveneau	s.n.	5	6
UPS	V-738025	Alphonse Autheman	s.n.	n.a.	6
UPS	V-737956	Ch. Fontarlier	s.n.	10	7
UPS	V-738372	Carl de Geer	s.n.	n.a.	5
UPS	V-738355	Elisée Reverchon	s.n.	20	5
UPS	V-738006	Carl de Geer	s.n.	8	4
UPS	V-738020	leg. ign.	s.n.	n.a.	n.a.
W	2008-21618	Irat	408	26	5
W	17906	P.F.A. Irat	408	26	5
W	14219	P.F.A. Irat	408	26	5
W	1996-11639	A. Tillet	s.n.	n.a.	7
W	1994-04540	Ch. Tontarliev	7104	15	7
W	1996-11638	Cartier	s.n.	n.a.	5
W	16409	Marnac	6	19	6
W	1999-01546	K.H. Rechinger & H. Sleu	1628	16--2	6--7
W	26236	Retz	23558	2	6
W	2002-05181	F. Krendl	s.n.	5	7
W	2000-13105	Froebe	7832	21	5

Year	Country	Collection locality	Other notes c	Cultivated?
1849	France	Champs et vignes près Auch (Ger.	n.a.	No
1849	France	Champs et vignes près Auch (Ger.	n.a.	No
1862	France	Coteaux du Vinaigrié près Nice.	Relighiae Mai	No
1862	France	Coteaux du Vinaigrié près Nice.	Relighiae Mai	No
1866	France	[illegible]	n.a.	No
1885	France	Saargebiet, Louisenthal	200 m, in Gar	Yes
1896	France	champs Montpellier	Relighiae Mai	No
1907	France	Hagenau, Wegersheim-bei einem	n.a.	Yes
1910	France	Strassburg, Neudorf alter (...?)	plena	No
1916	France	Montrieux: wenbergs-Terras?	n.a.	No
1916	France	Montrieux: wenbergs-Terras?	n.a.	No
1991	France	Drome, Mollons-sur-Ouvèze, anci	270 m, flanc s	No
1865	France	cambes (gir)	Dans les haie:	No
1879	France	Coteaux de Landau, près Bourg-S	n.a.	No
1889	France	Bois de Balma	n.a.	No
1899	France	aude: la nouvelle	Friche	No
1901	France	Corse: Bonifacio	sous les olivie	No
1901	France	Corse: Bonifacio	sous les olivie	No
1911	France	Bouches-du-Rhone: luynes	champs et lie	No
1916	France	Rians	Bord des chei	No
1930	France	Bouches-du-Rhone: La Valentine.	n.a.	No
1963	France	Grasse	Talus, fossés	No
1980	France	Lyon	n.a.	No
1991	France	Mollans-sur-Ouvèze (Drome), anc	270 m, flanc s	No
n.a.	France	Hyeres near Gapeau River	n.a.	No
1848	France	Env. de Toulon: Fort Rouge	n.a.	No
1848	France	Saintes, Charente Inf.	n.a.	No
1849	France	Env. de Toulouse	n.a.	No
1854	France	Rogliano	n.a.	No
1859	France	Mt. Pharon, près Toulon	n.a.	No
1860	France	Roquefavour	n.a.	No
1860	France	Luc	Bords des cha	No
1864	France	St. Canat (Bouches-du- Rhône)	n.a.	No
1867	France	Moissons a Soubise (Charente-Inf	n.a.	No
1867	France	Bastia, Insel Corsika	Früchte	No
1869	France	Bastia	Collium incult	No
1874	France	Environs de Costebelle, au dessus	Terrain calcai	No
1875	France	[illegible] près de Gorniès	Moissons de	No
1877	France	Le Luc	bords de char	No
1878	France	Beaupuy (près Toulouse), alt. 200	n.a.	No
1880	France	Canetto près Bonifacio	Lieux incultes	No
1883	France	Hyères	n.a.	No

1884	France	near Rochelle	Cornfield wee	No
1884	France	Char. Infer.	n.a.	No
1889	France	de la Rochelle a la Palisse (Chte Ir	n.a.	No
1891	France	Magnil près Luçon (Vendée)	n.a.	No
1893	France	Collines de la Gardiole, près Mir	n.a.	No
1894	France	Environs de Nice	n.a.	No
1898	France	Béziers: Pradines le Haut	n.a.	No
1911	France	Mt Agel, S.E Face above Grand Cc	n.a.	No
1925	France	Pont de la Fou	n.a.	No
1930	France	La Valentine: Friche à Mont-Riant	n.a.	No
1930	France	La Valentine, Friche a Mont-Riant	n.a.	No
1991	France	Mollans-sur-Ouvèze (Drôme): anc Flanc sud du t		No
n.a.	France	Perpignan, py. or.	n.a.	No
n.a.	France	Narbonne	n.a.	No
1849	France	près Auch (Ger.)	Champs et vi	No
1825	France	Avignon	n.a.	No
1825	France	Narbonne	n.a.	No
1825	France	Narbonne	n.a.	No
1825	France	Fontfroid, Pyrénées Orientales	n.a.	No
1839	France	Perpignan, Pyrénées Orientales	n.a.	No
1839	France	Perpignan	n.a.	No
1839	France	Toulon	n.a.	No
1855	France	Brousse	n.a.	No
1862	France	Herault, prope Valergues	n.a.	No
1867	France	Bastia, Corse	n.a.	No
1867	France	Le Luc, Var	n.a.	No
1880	France	Corsica, Bonifacio, maquis de Can	n.a.	No
1880	France	Bonifacio, Canetto	n.a.	No
1886	France	Alpes Maritimes, Fontan	Moissons	No
1886	France	Fontan, Alpes Maritimes	Moissons	No
1886	France	Alpes Maritimes, Fontan	Moissons	No
ante 1884	France	Montpellier	n.a.	No
ante 1888	France	near Nice	n.a.	No
n.a.	France	Lourmarin, Vaucluse	n.a.	No
1843	France	Nice, La grotte d'amour, sur le M	n.a.	No
1843	France	Nice	n.a.	No
1845	France	[...] circa Puy [...] (Gers)	n.a.	No
1849	France	champs et vignes près Auch	n.a.	No
1851	France	Corsica	n.a.	No
1856	France	Vendée: Luçon	n.a.	No
1869	France	Nizza	n.a.	No
1870	France	Crest (Drôme)	n.a.	No
1870	France	Crest (Drôme), Morillons	n.a.	No
1877	France	Le luc (Var) bods des champs	n.a.	No

1881	France	Dans pres Bastia Corse	n.a.	No
1898	France	Lot: Sérignac	250 m, sol. ca	No
n.a.	France	champs près le lac de St Marcel, S	n.a.	No
n.a.	France	Nice	champs incult	No
1841	France	Saint Martory	In arvis	No
1887	France	Montpellier	n.a.	No
1963	France	Grasse	talus, bords c	No
1991	France	Mollans-sur-Ouvèze (France, dép. 270 m, flanc s		No
n.a.	France	Nice	moissons	No
1859	France	Provence-Alpes-Côte d'Azur, Mt.	n.a.	No
1867	France	Corse	n.a.	No
1877	France	Provence-Alpes-Côte d'Azur, Le L	bords des cha	No
1880	France	Corse, Bonifacio, à Canetto	Lieux incultes	No
1880	France	Corse, Bonifacio, à Canetto	Lieux incultes	No
1880	France	Pays de la Loire, Les Magnils (Ven	n.a.	No
1907	France	Languedoc-Roussillon, Herault, M	Haies et chan	No
1907	France	Corse, Bonifacio	n.a.	No
1912	France	Bonifacio	sous les olivie	No
1966	France	Provence-Alpes-Côte d'Azur, Troc	Trockenhang	No
n.a.	France	Languedoc-Roussillon, Département	n.a.	No
1824	France	Marseille	n.a.	No
1832	France	Castelneau près Montpellier	n.a.	No
1836	France	Avignon	n.a.	No
1840	France	Corsica	dans les terre	No
1846	France	Montpellier	n.a.	No
1846	France	Prope Nicoam	In cultis	No
1851	France	La Rochelle, à chef de Baie	n.a.	No
1852	France	Villefranche	ex oliveto (Hc	No
1856	France	Hort. Bot. Grenoble	n.a.	Yes
1857	France	Perpignan	n.a.	No
1857	France	Circa Monpelicean	n.a.	No
1859	France	près de Nice	Dans les chan	No
1860	France	Nice	Collines	No
1860	France	Roquefavour près Marseille	n.a.	No
1862	France	Indre-et-Loire	n.a.	No
1862	France	Toulon	n.a.	No
1862	France	Toulon	n.a.	No
1863	France	Quartier des Vinaigriers à Nice	n.a.	No
1873	France	Bords du Lez près Montpellier	n.a.	No
1876	France	Mauguio (Hérault), à Mézouls	n.a.	No
1877	France	Menton, dans les environs Cap M	n.a.	No
1890	France	Toulon	n.a.	No
1890	France	Lot-et-Garonne, Chabrity, commu	Champs des c	No
1892	France	Environs de Marseille (Bouches d	Champs	No

1893	France	Près Marseille (Bouches du Rhône)	Champs aux c	No
1907	France	Cannes	sous les olivie	No
1910	France	Var: Draguignan	n.a.	No
1938	France	Bord moyenne corniche entre M	n.a.	No
1942	France	Carqueiranne	n.a.	No
1948	France	Fontaine de Vaucluse	n.a.	No
1948	France	Var: plan d'Aups	n.a.	No
1948	France	Var: Aups	n.a.	No
1949	France	Bouches du Rhône, Montmajour	n.a.	No
ante 1864	France	Lourmarin	n.a.	No
ante 1866	France	Toulon	n.a.	No
ante 1879	France	Toulon	n.a.	No
ante 1879	France	Narbonne	n.a.	No
ante 1896	France	Montpellier	n.a.	No
ante 1903	France	Département de l'Aude	n.a.	No
ante 1907	France	Alpes-Maritimes	Terrain vague	No
n.a.	France	Nice	n.a.	No
n.a.	France	Montpellier	n.a.	No
n.a.	France	Montpellier	Spont.	No
1931	France	Colombier, S. France	Roadsides	No
1931	France	Marseille-Mazarg	Roadsides, Pi	No
1972	France	6 km. SW of Montpellier to Sete.	Garrigue, terr	No
1825	France	Narbonne	n.a.	No
1828	France	Corsica	inter segetes	No
1847	France	Hérault, Montpellier	Champs	No
1848	France	Environs de Toulon, Fort Rouge	n.a.	No
1856	France	Vaucluse, Flassan	Les moissons	No
1862	France	Coteau du Vinaigrié près Nice	n.a.	No
1867	France	Menton	Frequent und	No
1867	France	Vaucluse, au pied du mt Ventoux,	Bords des cha	No
1869	France	Road near Hôtel d'Italie, Menton	n.a.	No
1870	France	Mentone. Monte Carlo.	n.a.	No
1875	France	Route de Ste Anne près Dijon (Côte	n.a.	No
1877	France	Le Luc (Var)	Bords des cha	No
1878	France	Beaupuy (près de Toulouse), Hte	Champs et ha	No
1899	France	Aix-en-Provence	n.a.	No
1925	France	Pyrénées Orientales, Villefranche	1500 ft, grow	No
1952	France	Vaucluse, gorges de la Nesque	Near deserte	No
1970	France	Toulon (Var), Bot. Gard. Dijon	n.a.	Yes
1990	France	Alpes-Maritimes, Cipières	Field edge wi	No
ante 1867	France	Roussillon	sauvage	No
ante 1867	France	Avignon	n.a.	No
ante 1867	France	Avignon	n.a.	No
ante 1921	France	Près Uzès, remonte jusqu'à Vigan	Le long des ch	No



n.a.	France	Vaucluse	n.a.	No
n.a.	France	Mentone	n.a.	No
n.a.	France	Cul ex Sem. Hispanica in Hort. Tin	n.a.	Yes
1843	France	Lyon. Blés près de St. Alban	n.a.	No
1849	France	Champs et vignes près Auch (Ge	n.a.	No
1891	France	Bouches-du-Rhône: Aix	bords gazonn	No
1891	France	Béziers	n.a.	No
1930	France	Bouches-du-Rhône: La Valentine	n.a.	No
1961	France	Les Arisquiers (Hérault)	n.a.	No
1963	France	Grasse (AM)	Fossés, lieux	No
1965	France	Grasse (AM)	Champs, talu	No
1965	France	Region Provence-Alpes-Cote d'A	champs incult	No
1965	France	Alpes-Maritimes, Villeneuve Loub	Alt.: 39 m.	No
1967	France	Alpes-Maritimes, Gourdon	Alt.: 800 m.	No
1967	France	Alpes Maritimes, Saint Vallier-de-	Alt.: 800 m.	No
1972	France	Pova do Conde. Castanheda	n.a.	No
1991	France	Drôme: Mollans-sur-Ouvèze, anci	flanc sud du t	No
1839	France	Languedoc-Roussillon, Montpellie	n.a.	No
1859	France	Languedoc-Roussillon, Montpellie	n.a.	No
1862	France	Coteau du Vinaigrié, près Nice	n.a.	No
n.a.	France	Provence-Alpes-Cote d'Azur, Mar	n.a.	No
n.a.	France	Provence-Alpes-Cote d'Azur, Mar	n.a.	No
n.a.	France	Provence-Alpes-Cote d'Azur, Mar	n.a.	No
n.a.	France	Provence-Alpes-Cote d'Azur, Prov	n.a.	No
1803	France	La Rochelle	n.a.	No
1820	France	Perpignan, [illegible]	n.a.	No
1828	France	Maguelone	n.a.	No
1834	France	Monte Grosso près de Nice	n.a.	No
1835	France	Fabrègues	champs	No
1837	France	de la gaillarde à la mosson (? Mor	bord de cher	No
1841	France	[illegible]	n.a.	No
1842	France	Auch (Gers)	n.a.	No
1846	France	Toulon, Fort Rouge	n.a.	No
1847	France	Montpellier, Hérault	champs	No
1847	France	Montpellier	champs	No
1847	France	Montpellier	n.a.	No
1847	France	Montpellier	champs	No
1849	France	environs d'Angoulême	dans les vign	No
1849	France	Puycasquier (Gers)	n.a.	No
1849	France	près d'Auch	champs et vig	No
1849	France	près d'Auch (Gers)	champs et vig	No
1849	France	Richemont (Charente)	échappée de	No
1850	France	Jardin botanique de Lyon	n.a.	Yes
1851	France	Point de Chef de Baie (La Rochell	n.a.	No

1852	France	Bourges	décombres au	No
1854	France	Montpellier	n.a.	No
1858	France	Montpellier	n.a.	No
1860	France	Le Luc (Var)	bords des cha	No
1860	France	Le Luc (Var)	bords de cha	No
1862	France	coteau du Vinaigrié près Nice	n.a.	No
1862	France	coteau du Vinaigrié près Nice	n.a.	No
1863	France	Pézenas	champs, vign	No
1864	France	Antibes	n.a.	No
1864	France	Auch	n.a.	No
1866	France	Le Luc (Var)	liens incultes	No
1867	France	Saint Félix de Lodez	n.a.	No
1870	France	Lodève au chemin vieux de Lauro	n.a.	No
1871	France	Saint Zacharie (Var)	moissons	No
1871	France	Saint Martin de Londres (Hérault)	bords des che	No
1876	France	Toulon	champs	No
1876	France	Montagne de Cette (= Sète), Héra	n.a.	No
1876	France	Montpellier à Montplaisir	haies et char	No
1876	France	Montpellier	bord des che	No
1877	France	Flassan	moissons	No
1877	France	Le Luc (Var)	bords des cha	No
1877	France	Le Luc (Var)	bords des che	No
1879	France	Cette (Sète)	n.a.	No
1880	France	Bonifacio, à Canetto	lieux incultes	No
1882	France	Menton, sur terre italienne bois C	n.a.	No
1884	France	Murviel-lez-Montpellier	bords et talus	No
1884	France (?)	Alpes (?)	champs mois:	No
1886	France	Montbazin (Hérault)	talus du chen	No
1886	France	Mausson	n.a.	No
1886	France	Béziers, grand fossé du pré-au-nè	n.a.	No
1887	France	haies à Balaruc	n.a.	No
1887	France	bord chemin Montpellier	n.a.	No
1887	France	La Gaillarde	n.a.	No
1887	France	Valmaillargues près Montpellier	n.a.	No
1889	France	Aniane	bords des cha	No
1889	France	Grasse	n.a.	No
1891	France	Bouches du Rhône: Aix	bords gazonn	No
1891	France	Aix (Bouches-du -Rhône)	bords gazonn	No
1892	France	Angoulême	n.a.	No
1893	France	Cette (Sète)	coteaux mari	No
1893	France	Saint Guilhem le Désert (Hérault)	n.a.	No
1894	France	près Angoulême	blés	No
1894	France	Seillans (Var)	champs de bl	No
1896	France	Agde (Hérault)	n.a.	No

1896	France	Montpellier, champs de l'école d'	n.a.	No
1898	France	Nyons (Drôme)	n.a.	No
1898	France	Nyons (Drôme)	moissons	No
1898	France	jardin botanique, graines Monacc	n.a.	No
1898	France	Millau (Aveyron)	jardin de Natl	Yes
1899	France	La Nouvelle (Aude)	n.a.	No
1899	France	La Nouvelle (Aude)	friche	No
1899	France	Fronsac (Gironde)	champs de bl	No
1899	France	La Nouvelle (Aude)	friche	No
1901	France	Corse, Bonifacio	sous les olivie	No
1901	France	La Nouvelle (Aude)	n.a.	No
1901	France	Corse, Bonifacio	sous les olivie	No
1902	France	environs d'Angoulême	moissons, cot	No
1903	France	Corse, Cavallo morto près Bonifac	sous les olivie	No
1907	France	Millau (Aveyron)	ravin (?)	No
1907	France	Léognan (Gironde)	cultivé dans l	Yes
1914	France	Darnieux	lieux en friche	No
1914	France	Haies à la Coste	n.a.	No
1918	France	Fréjus	plaine	No
1918	France	Maraussan & Ardouane	bord de senti	No
1926	France	Béziers, en dessous du canal	pentés herbe	No
1930	France	La Valentine (Bouches du Rhone)	friche à Mont	No
1936	France	Savonnières (Indre-et-Loire), rout	pieds des mu	No
1956	France	Les Baux du Ventoux	400 m	No
1959	France	Montpellier, environs hopital sair	n.a.	No
1959	France	Montpellier, environs hopital sair	n.a.	No
1959	France	Montpellier, hauteurs sur la rive	n.a.	No
1963	France	Grasse (Alpes-Maritimes)	lieux incultes,	No
1965	France	Lavalette (près Montpellier)	friches	No
1966	France	Murviel-Les-Montpellier (Hérault)	bord de char	No
1966	France	Vaucluse: Les Baux de Vaucluse	n.a.	No
1893 & 1898	France	Bordeaux; remblais touchant le p	n.a.	No
n.a.	France	[illegible]	n.a.	No
n.a.	France	Près Perpignan, au-delà de la por	champs cultiv	No
n.a.	France	Tuchan	n.a.	No
n.a.	France	Béziers, en dessous du canal du n	pentés herbe	No
n.a.	France	L'Ardide, près Béziers	talus herbea	No
n.a.	France	Ardouane	270 m	No
n.a.	France	Aix en provence	n.a.	No
n.a.	France	Sommières (Gard)	champs cultiv	No
n.a.	France	Saint-Rémy, Haute Saône	n.a.	No
1784	France	Jardin de Sally	n.a.	No
1817	France	Toulon, au bas du Fort rouge	n.a.	No
1821	France	Toulon, gorges d'Ollioules	n.a.	No

1821	France	Nismes	n.a.	No
1822	France	Montpellier	n.a.	No
1826	France	cult. Paris	n.a.	Yes
1827	France	Provence	n.a.	No
1828	France	Bar sur Aube	L'échantillon	Yes
1828	France	Courbevoie. Environs de Paris. Ha	n.a.	No
1829	France	Demadou (?)	Plaines et cot	No
1834	France	Montpellier	n.a.	No
1834	France	Lourmarin	n.a.	No
1834	France	Lourmarin	n.a.	No
1835	France	Montpellier	n.a.	No
1836	France	Grasse	n.a.	No
1838	France	Grasse	n.a.	No
1838	France	Besançon (Doubs): jardin du Poly	n.a.	Yes
1842	France	environs d'Angoulême	dans les chan	No
1842	France	Auch (Gers)	n.a.	No
1843	France	[illegible]	n.a.	No
1844	France	Perpignan, à Castel-Roussillon	n.a.	No
1845	France	près Montpellier	Sur le bord de	No
1845	France	In arvis Puy-conquier (?) (Gers) (?)	n.a.	No
1845	France	Montpellier, sur le bord du chemi	n.a.	No
1845	France	Charente: vignes de Brudy	n.a.	No
1845	France	Angoulême, Charente	champs cultiv	No
1845	France	Montpellier, sur le bord du chemi	n.a.	No
1845	France	Toulon	n.a.	No
1845	France	Montpellier	sur le bord du	No
1845	France	Montpellier	n.a.	No
1845	France	Auch	n.a.	No
1846	France	Du fort Rouge, environ de Toulon	n.a.	No
1846	France	Environs de Toulon, Fort Rouge	n.a.	No
1846	France	Bonifacio (Corse)	n.a.	No
1846	France	Edon (Charente)	observée éga	No
1846	France	Narbonne	n.a.	No
1846	France	Nîmes	Bord des char	No
1847	France	Environs d'Angoulême	dans les chan	No
1847	France	St André près Montpellier	n.a.	No
1847	France	Montpellier	Bord des char	No
1847	France	Montpellier, Hérault	Champs	No
1847	France	Montpellier, Hérault	Champs	No
1847	France	Montpellier (Hérault)	champs	No
1848	France	Fort rouge	France mérid	No
1848	France	Env. de Toulon, Fort rouge	n.a.	No
1848	France	Fort rouge	n.a.	No
1848	France	Env. de Toulon, Fort rouge	n.a.	No

1849	France	Auch (Gers)	champs près	No
1849	France	Auch (Gers)	Champs et viè	No
1849	France	Auch (Gers)	Champs et viè	No
1850	France	Agen	champ cultivé	No
1850	France	Linon	dans les mois	No
1850	France	Env. d'Angoulême	n.a.	No
1850	France	Montpellier (Hérault)	n.a.	No
1850	France	Montpellier, champs	n.a.	No
1851	France	Chatillon	Plateau de Ch	No
1851	France	La Rochelle	n.a.	No
1852	France	Dans quelques champs seulement	Mr. Letourne	No
1852	France	Les Magnils (Vendée)	près Luçon, d	No
1853	France	Lot-et-Garonne. Corne, près de C	n.a.	No
1854	France	Saintes (Charente maritime)	Spontanée de	No
1854	France	Auch	moissons (spr	No
1854	France	Auch	n.a.	No
1856	France	Bastia, lieux incultes	n.a.	No
1856	France	Environs de Luçon (Vendée)	n.a.	No
1856	France	n.a.	hortus andeg	Yes
1858	France	Pas de Calais. Etaples.	Cultivée	Yes
1859	France	Toulon, les Sablettes	n.a.	No
1859	France	Villeneuve les maguelonne (Héra	n.a.	No
1860	France	Montredon	n.a.	No
1860	France	Montredon	n.a.	No
1860	France	Luc (Var)	Bords des cha	No
1860	France	Luc (Var)	Bords des cha	No
1860	France	Luc (Var)	Bords des cha	No
1860	France	Villanière, collines sèches	Plantes du ve	No
1860	France	Villanière, collines sèches	Plantes du ve	No
1860	France	Antibes (Alpes-Maritimes)	n.a.	No
1860	France	Montredon près Marseille	n.a.	No
1860	France	Le Luc (Var)	Bords des cha	No
1860	France	Le Luc (Var)	Bords des cha	No
1860	France	Le Luc (Var)	Bords des cha	No
1860	France	Montredon: collines	n.a.	No
1860	France	St Pons (Bouches du Rhône)	Vallon de St F	No
1861	France	Toulon	n.a.	No
1861	France	Nice (Alpes Maritimes)	champs incult	No
1861	France	Nice	Champs incult	No
1861	France	Nice	Champs incult	No
1861	France	Nice	Champs incult	No
1861	France	Nice	Champs incult	No
1862	France	Nice (Alpes Maritimes)	Coteau du Vir	No
1862	France	Coteau du Vinaigrié près Nice	n.a.	No

1862	France	Coteau du Vinaigrié près Nice	n.a.	No
1862	France	Coteau du Vinaigrié près Nice	n.a.	No
1862	France	Coteau du Vinaigrié près Nice	n.a.	No
1862	France	Nice (Alpes Maritimes)	coteau du 'Vi	No
1862	France	Béziers	n.a.	No
1862	France	Coteau du Vinaigrié près Nice	n.a.	No
1862	France	Rivesaltes	n.a.	No
1862	France	Aveyron: gorges d'Estrabols, Cm	n.a.	No
1863	France	Cavaillon, Vaucluse	n.a.	No
1863	France	Montagne de St Jacques sur Cava	n.a.	No
1863	France	Grabels	moissons à G	No
1865	France	Ile Ste Marguerite	n.a.	No
1865	France	Sous les oliviers, près de Menton	n.a.	No
1866	France	Lévignen (Oise)	Moissons	No
1866	France	Tayac, les Eyzies (Dordogne)	n.a.	No
1866	France	[illegible]	région des oli	No
1866	France	Ile verte près La Ciotat, Bouches c	n.a.	No
1866	France	St Remy (Haute Saône)	château, 2me	Yes
1867	France	Vaucluse	n.a.	No
1867	France	près Nice	lter italicum	No
1868	France	n.a.	champs, cult.	No
1869	France	Corse, Bastia	colline sèche	No
1869	France	Nemours	n.a.	No
1869	France	Besançon	cult. ornt.	Yes
1870	France	Agen	n.a.	No
1870	France	Crest (Drôme)	moissons	No
1870	France	Crest	moissons	No
1871	France	Chatillon (Seine)	Redoute de C	No
1871	France	Orange (Vaucluse)	Mourrarouge	No
1871	France	Les Magnils (Vendée)	près Luçon, d	No
1872	France	Cheverny (Loir et Cher)	Herbier de pl.	No
1873	France	Vaucluse	bord de la ro	No
1873	France	Jourdan	sans doute éc	No
1874	France	Toulon (Var)	lieux incultes	No
1875	France	Env. de Cette (Hérault)	n.a.	No
1875	France	Gornières (Hérault)	moissons, prè	No
1875	France	Montpellier	n.a.	No
1875	France	Les Magnisles, près Luçon	n.a.	No
1875	France	Le Luc (Var), haies et lieux inculte	n.a.	No
1875	France	Clermont	subspontané	No
1877	France	Le Luc (Var)	bords des cha	No
1877	France	Le Luc (Var): bord des champs	n.a.	No
1877	France	Le Luc (Var)	bords des cha	No
1877	France	Le Luc (Var)	bords des cha	No

1877	France	Flassan	moissons	No
1877	France	Beaupuy (près de Toulouse)	n.a.	No
1878	France	Montagne de Celle (Hérault)	n.a.	No
1878	France	Beaupuy (Haute Garonne)	Champs et ha	No
1878	France	Beaupuy (Haute Garonne)	Champs et ha	No
1878	France	Beaupuy (Haute Garonne)	Champs et ha	No
1878	France	Millau	n.a.	No
1878	France	Monsempron Libos (Lot-et-Garon)	n.a.	No
1880	France	Corse, Bonifacio, à Canetto	Lieux incultes	No
1880	France	Corse, Bonifacio, à Canetto	Lieux incultes	No
1880	France	Corse, Bonifacio, à Canetto	Lieux incultes	No
1880	France	Bonifacio (Corse)	lieux incultes,	No
1881	France	Drap (06)	région littora	No
1883	France	Saint-Emiland (S. et Loire)	cultivé de gra	Yes
1883	France	Saint-Emiland (S. et Loire)	cultivé de gra	Yes
1883	France	La Huberdière	Jardins	Yes
1885	France	Montpellier	n.a.	No
1886	France	Sérignan (Vaucluse)	Bord des cha	No
1886	France	Fontan	Alpes-Maritin	No
1886	France	Fontan	moissons	No
1886	France	n.a.	n.a.	No
1886	France	Belle Ile en Mer (Morbihan)	provenant de	No
1886	France	Originaire de l'Est de l'Espagne; c	Fleurs 22 juill	Yes
1886	France	Originaire de l'Est de l'Espagne; c	Fleurs 22 juill	Yes
1886	France	Saône et Loire: cultivé à Saint-Em	Fleurs 22 juill	Yes
1887	France	Carcassone (Aude), moissons vers	n.a.	No
1888	France	Annecy	carrières	No
1888	France	Clamart	dans les jardi	Yes
1889	France	Montpellier (Hérault)	route de Gan	No
1891	France	Aix (Bouches du Rhône)	bords gazonn	No
1891	France	Bouches-du-Rhône: Aix	bords gazonn	No
1891	France	Bouches-du-Rhône: Aix	bords gazonn	No
1891	France	Bouches-du-Rhône: Aix	bords gazonn	No
1891	France	Pointe du Chef de Baie	n.a.	No
1892	France	Montboron (Alpes Maritimes)	région littora	No
1893	France	St Remy	cult. ornt.	Yes
1894	France	Fontaine de Vaucluse	n.a.	No
1895	France	Nice (Alpes Maritimes)	région littora	No
1897	France	Louis (Pyrénées orientales)	champs, vign	No
1897	France	Antibes	ça et là dans l	No
1897	France	Mayenne	sur le chemin	No
1898	France	Salavre (Ain)	terre sablonn	No
1898	France	Corse: Aleria, domaine de Casabi	n.a.	No
1899	France	Fronsac (Gironde)	les champs de	No

1899	France	La nouvelle (Aude)	var. minor Bo	No
1899	France	Arsyron: Peyre, route de Compré	Var. minor Bc	No
1899	France	Chartres (Eure et Loir)	chemin, long	No
1900	France	Fronsac (Gironde)	champs calca	No
1900	France	n.a.	n.a.	No
1900	France	Millau (Aveyron)	côte de St Est	No
1901	France	Corse: Bonifacio	sous les olivie	No
1901	France	Corse: Bonifacio	sous les olivie	No
1901	France	Bonifacio (Corse)	sous les olivie	No
1901	France	La Nouvelle (Aude)	var. minor Bo	No
1902	France	Angoulême	moissons calc	No
1902	France	Dord. Champs de Granbges	n.a.	No
1902	France	Aude: La Nouvelle	n.a.	No
1902	France	Grasse (Alpes Maritimes)	de Mouans S	No
1902	France	St Germain (Seine et Oise)	n.a.	No
1902	France	St Germain (Seine et Oise)	n.a.	No
1903	France	Le Val d'Œuf, Cne de Mougins (Al	n.a.	No
1903	France	Cette	n.a.	No
1905	France	Environs de Marseille	(Sté bat. de F	No
1905	France	Tarbes (Hautes Pyrénées)	route de Pau	No
1905	France	Montceau-les-Mines	Plante méridi	Yes
1905	France	Montceau-les-Mines	Plante méridi	Yes
1906	France	Sète (Hérault)	Montagne de	No
1906	France	Sannois (S. et O.)	n.a.	No
1907	France	Montpellier (Hérault)	haies	No
1909	France	Garches	champ incult	No
1909	France	Saint-Tropez, Sainte-Anne	n.a.	No
1910	France	Duran près Auch (Gers)	n.a.	No
1910	France	Entre Béziers et Agde, garrigues c	n.a.	No
1911	France	Saint-Tropez. Var. Vallon St Antoi	n.a.	No
1911	France	St Tropez	n.a.	No
1911	France	Saint-Joseph, Saint-Tropez. Var	n.a.	No
1911	France	Saint-Gilles / Gard	n.a.	No
1912	France	Groslay	bord de la vo	No
1912	France	Ezanville	champ en boi	No
1914	France	Béziers (Hérault)	tertres herbe	No
1914	France	Béziers (Hérault)	tertres herbe	No
1914	France	près de Chaix, Vendée	sur la route d	No
1917	France	Alpes-Maritimes: Vence	n.a.	No
1917	France	La Clarté, près Perros Guirrec	bord des cher	No
1919	France	Brignoles (Var)	coteaux vers	No
1920	France	Versailles	n.a.	No
1922	France	La Mothe St Héray (Deux Sèvres)	dans un jardii	No
1923	France	Nice (Alpes Maritimes)	champs	No



1923	France	Hyères	n.a.	No
1925	France	Villeneuve les Avignon	n.a.	No
1926	France	Nice (Alpes Maritimes)	champs sous	No
1927	France	Gordes	n.a.	No
1928	France	Plazac (Dordogne)	derrière le vil	No
1928	France	Plazac (Dordogne)	route de Bar	No
1930	France	lac de [illegible]	n.a.	No
1930	France	Gordes	n.a.	No
1930	France	La Valentine (Bouches du Rhône)	friche à Mont	No
1930	France	La Valentine (Bouches du Rhône)	friche à Mont	No
1930	France	La Valentine (Bouches du Rhône)	friche à Mont	No
1930	France	Bandol (Var)	Champs & mc	No
1932	France	Toulon	n.a.	No
1932	France	Laghet (Alpes maritimes)	route de la Tr	No
1932	France	Toulon	n.a.	No
1936	France	Montchovet	carrière de M	No
1936	France	Sainte Baume (Provence)	n.a.	No
1936	France	Montpellier	n.a.	No
1938	France	Beynac (Dordogne)	n.a.	No
1938	France	Cap d'Ail (Alpes maritimes)	garrigue le lo	No
1938	France	Saintes (Charente maritime)	n.a.	No
1939	France	Montpellier (Hérault), haies et ch	n.a.	No
1940	France	Montpellier (Hérault)	champs	No
1941	France	Montpellier (Hérault)	Plan des 4 sei	No
1942	France	près d'Angoulême (Charente)	Champs	No
1943	France	Le Val (Var)	n.a.	No
1947	France	Saint Maximin (Var)	entre la ville	No
1948	France	Env. de Valenton (Seine), bord de	n.a.	No
1948	France	Sucy-en-Brie (Seine-et-Marne)	Moissons	No
1949	France	Petit-Quevilly (S.M.), rue A. Franc	jardin (récha	Yes
1950	France	Tl. D Jardin Doy for Marion Robin	n.a.	No
1954	France	Seine-Port	Echappé jardi	No
1956	France	Aurons (Bouches du Rhône)	garrigues et c	No
1956	France	Vauvenargues	près du Châte	No
1957	France	Charente maritime, Lhoumeau	moissons	No
1958	France	Laleu (Charente Maritime)	dans un char	No
1958	France	Laleu (Charente Maritime)	dans un char	No
1958	France	Laleu (Charente Maritime)	dans un char	No
1958	France	St Clément (Hérault)	n.a.	No
1958	France	limite Juvisy et Athis-Mons (Seine	sur un tas de	Yes
1959	France	Vaucluse: Bédoin, chemin vers la	n.a.	No
1960	France	Athis-Mons (Seine et Oise)	rare sur "la pi	Yes
1962	France	Puymoyen (Charente)	champ pierre	No
1962	France	Puymoyen (Charente)	champ pierre	No

1963	France	Grasse (Alpes Maritimes)	lieux incultes,	No
1963	France	Grasse (Alpes Maritimes)	lieux incultes,	No
1969	France	Athis-Mons, à peu de distance du involucre pré		No
1969	France	Athis-Mons (Essone), terrain enccl un seul indivi		No
1971	France	Montigny-sur-Loing (Seine-et-Ma Marge de la r		No
1973	France	Montelimar (Ardèche-Drôme). La n.a.		No
1973	France	Montelimar (Ardèche-Drôme). La n.a.		No
1975	France	préalpes de Grasse. Le Cheiron-gc n.a.		No
1990	France	Alpes-Maritimes, Cipières.	Field edge wi	No
1991	France	Mollans-sur-Ouvèze (Drôme)	ancienne voie	No
2001	France	Amboise (F37)	race cultivée	Yes
2009	France	Orconte (51300)	spontanée de	Yes
2015	France	Cultivé à: UMR 0320/8120, Génét Morphe [T], c		Yes
2015	France	Cultivé à: UMR 0320/8120, Génét Morphe [T], c		Yes
2015	France	Cultivé à: UMR 0320/8120, Génét Morphe [P], c		Yes
2015	France	Cultivé à: UMR 0320/8120, Génét Morphe [P], c		Yes
2015	France	Cultivé à: UMR 0320/8120, Génét Morphe [P], c		Yes
2015	France	Cultivé à: UMR 0320/8120, Génét Morphe [T], c		Yes
2015	France	Cultivé à: UMR 0320/8120, Génét Morphe [T], c		Yes
2015	France	Cultivé à: UMR 0320/8120, Génét Morphe [T], c		Yes
2015	France	Cultivé à: UMR 0320/8120, Génét Morphe [T], c		Yes
ante 1847	France	n.a.	fl. albo et fl. c	No
ante 1868	France	Notre Dame de Pau (py or)	n.a.	No
ante 1949	France	Nice	n.a.	No
n.a.	France	Montpellier	n.a.	No
n.a.	France	Morée	Morée Cranic	No
n.a.	France	La Seyne (Var)	fl. Mai-juillet	No
n.a.	France	France méridionale.	n.a.	No
n.a.	France	J'ai trouvé cette plante dans les c	n.a.	No
n.a.	France	Montarin	n.a.	No
n.a.	France	Bonifacio	Var. palliflor	No
n.a.	France	Env. de Montpellier	n.a.	No
n.a.	France	in Gall Narbonnes (?)	n.a.	No
n.a.	France	ruines du château d'Hyères	n.a.	No
n.a.	France	Nice (Alpes Maritimes)	moissons	No
n.a.	France	Montpellier (Hérault)	n.a.	No
n.a.	France	n.a.	n.a.	No
n.a.	France	Saintes Chte (?)	n.a.	No
n.a.	France	Perpignan	n.a.	No
n.a.	France	Bonifacio	n.a.	No
n.a.	France	Avignon (Vaucluse)	n.a.	No
n.a.	France	Bord de l'Allier	n.a.	No
n.a.	France	Luçon	Lou Bourdeau	No
n.a.	France	Environs de Rennes	n.a.	No

n.a.	France	n.a.	Herb. Univ. C	Yes
n.a.	France	France méridionale	Cultivée dans	Yes
1861	France	Aveyron: Canton de Villeneuve, e	n.a.	No
1862	France	Aveyron: Combes d'Estrabols, Ce	Au fond du ra	No
1880	France	Corse. Bonifacio a Canetto	n.a.	No
1883	France	Gallica. Luçon	n.a.	No
1883	France	Provence-Alpes-Cote d'Azur-Men	n.a.	No
1891	France	Bouches-du-Rhone: Aix	bords gazonn	No
1903	France	Coutronne (massif de la S: tb=Bau	n.a.	No
1906	France	Menton. Alp. Mar	n.a.	No
1911	France	Bretagne, Frankrike, Benodet	n.a.	No
1911	France	Bretagne, Frankrike, Benodet	n.a.	No
n.a.	France	Midi-Pyrénées: Champs et vignes	n.a.	No
n.a.	France	Montpellier	n.a.	No
1872	France	Nizza: in arvis	n.a.	No
1873	France	Nice, sur le Mont Alban	n.a.	No
1882	France	champs, Marseille, bouches du rh	n.a.	No
1895	France	Littoral, Nice Montgros	n.a.	No
1903	France	Corse: sous les oliviers de Cavallo	n.a.	No
1823	France	Provence-Alpes-Côte d'Azur: Bou	n.a.	No
1846	France	Languedoc-Roussillon: Hérault, M	n.a.	No
1855	France	Provence-Alpes-Côte d'Azur: Var, Lieux pierreu	n.a.	No
1869	France	Languedoc-Roussillon: Hérault, B	n.a.	No
1872	France	Provence-Alpes-Côte d'Azur: Bou	Lieux incultes	No
1880	France	Pays de la Loire: Vendée, Les Maç	Inter segetes.	No
1883	France	Provence-Alpes-Côte d'Azur: Alpe	n.a.	No
1886	France	Provence-Alpes-Côte d'Azur: Alpe	Moissons	No
1893	France	Provence-Alpes-Côte d'Azur: Alpe	n.a.	No
n.a.	France	Languedoc-Roussillon: Hérault, M	n.a.	No
1849	France	Champs près auch	n.a.	No
1849	France	Champs et vignes près Auch (Ger.	n.a.	No
1849	France	Champs et vignes près Auch (Ger.	n.a.	No
1874	France	Champs à Gleizé, près Villefranch	n.a.	No
1882	France	Les Magnils prope Luçon (Vendée in agris triticc	n.a.	No
1895	France	Le Luc (Var)	haies, lieux in	No
1911	France	Bouches du Rhone: Luynes	champs et lie	No
1944	France	Hérault: Montpellier	n.a.	No
1947	France	Saint Maximin	n.a.	No
1965	France	Fundort: Dep. Var: 1-2 km Le Luc,	n.a.	No
1977	France	Perpignan, campus Univ	n.a.	No

Cultivated? (a Flower prese| Flower morpl Presence of c GPS

No	Yes	P	No	43.646111, 0.586667
No	Yes	P	Yes	43.646111, 0.586667
No	Yes	P	Yes	43.710287, 7.305119
No	Yes	P	Yes	43.710287, 7.305119
No	Yes	P	Yes	//
Yes	Yes	T	No	//
No	Yes	P	No	43.610556, 3.876667
Yes	Yes	T	No	//
No	Yes	T	Yes	48.573405, 7.752111
No	No	n.a.	Yes	47.795111, 1.01964
No	No	n.a.	Yes	47.795111, 1.01964
No	Yes	P	No	44.239147, 5.126847
No	Yes	T	Yes	44.732496, -0.462423
No	No	n.a.	Yes	45.043983, -0.557815
No	No	n.a.	Yes	43.605792, 1.499266
No	Yes	P	Yes	43.021111, 3.043889
No	Yes	P	Yes	41.387174, 9.159269
No	Yes	P	Yes	41.387174, 9.159269
No	Yes	P	Yes	47.384882, 0.554293
No	Yes	n.a	No	43.606476, 5.756593
No	Yes	P	Yes	43.296389, 5.483333
No	Yes	P	No	43.660153, 6.926492
No	Yes	P	No	45.764043, 4.835659
No	Yes	P	No	44.239147, 5.126847
No	Yes	P	Yes	43.114379, 6.183692
No	Yes	P	No	43.142984, 5.916093
No	Yes	P	Yes	45.744161, -0.631667
No	Yes	P	No	43.603911, 1.448975
No	Yes	P	No	42.974942, 9.429053
No	Yes	P	No	43.154306, 5.945556
No	Yes	P	Yes	43.515225, 5.306681
No	Yes	P	Yes	43.393722, 6.316657
No	Yes	P/T	Yes	43.621975, 5.299489
No	Yes	P	Yes	45.926661, -1.008539
No	Yes	P	Yes	42.692003, 9.450392
No	Yes	P/T	No	42.692003, 9.450392
No	Yes	P	Yes	43.100242, 6.133344
No	Yes	P	Yes	43.891711, 3.632081
No	Yes	P	Yes	43.393722, 6.316657
No	Yes	P	No	43.650664, 1.55445
No	Yes	P	No	41.422981, 9.220775
No	Yes	P	No	43.125556, 6.13

No	No	n.a.	Yes	46.166667, -1.147458
No	Yes	T	No	//
No	Yes	P	No	46.162808, -1.205111
No	Yes	P	Yes	46.572727, -0.964886
No	Yes	P	No	43.499933, 3.756367
No	Yes	P	Yes	43.710173, 7.261953
No	Yes	P	No	43.380042, 3.211053
No	Yes	P	No	43.766328, 7.432408
No	Yes	P	No	42.800797, 2.498919
No	Yes	P	No	43.296389, 5.483333
No	Yes	P	No	43.296389, 5.483333
No	Yes	P	Yes	44.239147, 5.126847
No	Yes	P	No	42.688659, 2.894833
No	Yes	P	No	43.184277, 3.003078
No	Yes	?	No	43.646111, 0.586667
No	No	n.a.	Yes	43.949317, 4.805528
No	Yes	P	No	43.184277, 3.003078
No	Yes	P	No	43.184277, 3.003078
No	Yes	P	No	43.127395, 2.898443
No	Yes	P	No	42.688659, 2.894833
No	Yes	P	No	42.688659, 2.894833
No	Yes	P	No	43.124228, 5.928
No	Yes	P	No	43.718565, 2.072531
No	Yes	P	No	43.667285, 4.061846
No	Yes	P	No	42.692003, 9.450392
No	Yes	P	Yes	43.393722, 6.316657
No	No	n.a.	Yes	41.422981, 9.220775
No	Yes	P	No	41.422981, 9.220775
No	Yes	P	Yes	44.002722, 7.554131
No	Yes	P	Yes	44.002722, 7.554131
No	Yes	P	Yes	44.002722, 7.554131
No	Yes	P	No	43.610556, 3.876667
No	Yes	P	No	43.710173, 7.261953
No	No	n.a.	Yes	43.763477, 5.362582
No	Yes	P	Yes	43.706718, 7.298076
No	Yes	P	Yes	43.710173, 7.261953
No	Yes	P	Yes	44.658341, 0.060664
No	Yes	P	Yes	43.646111, 0.586667
No	Yes	P	Yes	42.039604, 9.012893
No	Yes	P	Yes	46.454772, -1.167062
No	Yes	P	No	43.710173, 7.261953
No	Yes	T	No	44.728275, 5.024072
No	Yes	T	Yes	44.728275, 5.024072
No	Yes	P	Yes	43.393722, 6.316657

No	Yes	P	Yes	42.692003, 9.450392
No	Yes	T	Yes	43.920553, 1.022943
No	No	n.a.	Yes	45.511935, 6.566843
No	Yes	P	Yes	43.710173, 7.261953
No	Yes	T	Yes	43.143227, 0.930699
No	Yes	P	Yes	43.610556, 3.876667
No	Yes	P	No	43.660153, 6.926492
No	Yes	P	No	44.239147, 5.126847
No	Yes	P	No	43.710173, 7.261953
No	Yes	P	Yes	43.154306, 5.945556
No	Yes	P	No	42.039604, 9.012893
No	Yes	P	Yes	43.393722, 6.316657
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No	Yes	P	Yes	46.572727, -0.964886
No	No	n.a.	Yes	43.610556, 3.876667
No	No	n.a.	Yes	41.387174, 9.159269
No	Yes	P	No	41.387174, 9.159269
No	Yes	P	No	43.710173, 7.261953
No	Yes	P	No	43.992927, 3.606322
No	Yes	P	Yes	43.3, 5.383333333
No	Yes	P	No	43.638755, 3.913851
No	Yes	P	No	43.949317, 4.805528
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No	Yes	P	Yes	42.529047, 2.248169
Yes	Yes	P	Yes	//
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No	Yes	P	Yes	43.710173, 7.261953
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No	Yes	P	Yes	43.545232, 5.286626
No	No	n.a.	Yes	47.245995, 0.632094
No	Yes	P	Yes	43.124228, 5.928
No	Yes	P	No	43.124228, 5.928
No	Yes	P	No	43.710287, 7.305119
No	Yes	P	No	43.604431, 3.736497
No	Yes	P	Yes	43.618286, 3.967411
No	Yes	P	No	43.774444, 7.4975
No	Yes	P	Yes	43.124228, 5.928
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No	Yes	P	Yes	43.535682, 6.449755
No	Yes	P	No	43.721303, 7.401067
No	Yes	?	No	43.104102, 6.073135
No	Yes	P	No	43.923056, 5.127778
No	Yes	P	No	43.618166, 6.206349
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No	Yes	T	No	43.702457, 4.666115
No	Yes	P	No	43.763477, 5.362582
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No	Yes	P	No	43.184277, 3.003078
No	Yes	P/T	No	43.610556, 3.876667
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No	Yes	P	No	43.710173, 7.261953
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No	Yes	?	No	43.250631, 5.405078
No	Yes	P	No	43.515294, 3.805496
No	Yes	P	No	43.184277, 3.003078
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No	Yes	P	No	43.610556, 3.876667
No	Yes	P	Yes	43.142984, 5.916093
No	No	n.a.	Yes	44.098889, 5.242222
No	Yes	P	No	43.710287, 7.305119
No	Yes	P	Yes	43.774444, 7.4975
No	Yes	P	Yes	44.124667, 5.214217
No	Yes	P	Yes	43.774444, 7.4975
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No	Yes	T	No	47.322047, 5.04148
No	Yes	P	Yes	43.393722, 6.316657
No	Yes	P	Yes	43.650664, 1.55445
No	Yes	P	Yes	43.529722, 5.447222
No	Yes	T	No	42.529047, 2.248169
No	No	n.a.	Yes	44.057113, 5.19696
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No	Yes	P	No	43.783361, 6.955305
No	No	n.a.	Yes	43.902293, 5.292936
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No	Yes	P	Yes	44.01211, 4.419946

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No	Yes	P	Yes	43.646111, 0.586667
No	Yes	P	Yes	43.529722, 5.447222
No	Yes	T	Yes	43.344167, 3.215556
No	Yes	?	No	43.296389, 5.483333
No	Yes	P	No	43.468969, 3.811328
No	Yes	P	No	43.660153, 6.926492
No	Yes	P	No	43.660153, 6.926492
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No	Yes	P	No	43.719923, 6.979338
No	Yes	P	No	43.698521, 6.847956
No	Yes	P	No	43.454229, -0.994301
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No	Yes	P	Yes	43.710287, 7.305119
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No	Yes	T	No	46.160329, -1.151139
No	Yes	P	No	42.688659, 2.894833
No	Yes	P	No	43.511944, 3.883889
No	Yes	P	No	42.501667, 8.922778
No	Yes	P	No	43.549722, 3.778889
No	Yes	P	No	43.625833, 3.8225
No	No	n.a.	Yes	//
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No	Yes	P	No	43.610556, 3.876667
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No	Yes	P	No	43.610556, 3.876667
No	Yes	P	Yes	43.610556, 3.876667
No	Yes	P	Yes	45.648377, 0.156237
No	Yes	P	Yes	43.745833, 0.7475
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No	Yes	P	Yes	43.710287, 7.305119
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No	Yes	P/T	Yes	43.461389, 3.423056
No	Yes	P	No	43.580278, 7.125
No	Yes	P	Yes	43.646111, 0.586667
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No	Yes	P	No	43.662778, 3.460556
No	Yes	P	No	43.733611, 3.313889
No	Yes	P	No	43.384228, 5.710687
No	Yes	P	Yes	43.791551, 3.732024
No	Yes	P	No	43.124228, 5.928
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No	Yes	P	No	43.610556, 3.876667
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No	No	n.a.	Yes	44.098889, 5.242222
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No	Yes	P	Yes	43.393722, 6.316657
No	Yes	P	No	43.407778, 3.700556
No	Yes	P	Yes	41.422981, 9.220775
No	Yes	P	No	43.774444, 7.4975
No	Yes	P	No	43.604431, 3.736497
No	Yes	P	No	//
No	Yes	P	No	43.516111, 3.694167
No	Yes	P	Yes	48.449572, -1.061482
No	Yes	P	Yes	43.344167, 3.215556
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No	Yes	P	No	43.610556, 3.876667
No	Yes	P	No	43.625833, 3.8225
No	Yes	P	No	43.659167, 3.816389
No	Yes	P	No	43.684167, 3.586667
No	Yes	P	No	43.660153, 6.926492
No	Yes	P	Yes	43.529722, 5.434722
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No	Yes	P	Yes	45.648377, 0.156237
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No	No	n.a.	Yes	45.648333, 0.156111
No	Yes	P	Yes	43.636111, 6.643333
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No	Yes	P	No	43.610556, 3.876667
No	Yes	P	No	44.361667, 5.14
No	Yes	P	No	44.361667, 5.14
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Yes	Yes	T	Yes	//
No	Yes	P	No	43.021111, 3.043889
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No	Yes	P	Yes	43.791975, 3.739444
No	Yes	P	Yes	43.433056, 6.736944
No	Yes	P/T	No	43.368611, 3.157222
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No	Yes	P	No	44.124667, 5.214217
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No	Yes	P	No	43.660153, 6.926492
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No	Yes	P	No	42.889167, 2.718333
No	Yes	P	No	43.344167, 3.215556
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Yes	Yes	T	No	//
No	Yes	P	No	43.142984, 5.916093
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No	Yes	P	No	44.014494, 6.211644
Yes	Yes	P/T	No	//
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No	Yes	P	No	43.650664, 1.55445
No	Yes	P	No	43.650664, 1.55445
No	Yes	P/T	No	44.100556, 3.077778
No	Yes	T	Yes	44.504031, 0.929523
No	Yes	P	No	41.422981, 9.220775
No	Yes	P	No	41.422981, 9.220775
No	Yes	P	Yes	41.422981, 9.220775
No	Yes	P	No	41.421069, 9.184851
No	Yes	P	No	43.754365, 7.320831
Yes	No	n.a.	Yes	41.238987, 9.188079
Yes	Yes	P	No	41.238987, 9.188079
Yes	Yes	T	No	//
No	No	n.a.	Yes	43.610556, 3.876667
No	Yes	P	No	43.282801, 3.279651
No	Yes	P	No	44.002722, 7.554131
No	Yes	P	Yes	44.002722, 7.554131
No	Yes	P	No	//
No	Yes	T	Yes	47.336421, -3.181043
Yes	Yes	P	Yes	//
Yes	Yes	P	Yes	//
Yes	Yes	P	Yes	//
No	Yes	P	No	43.212161, 2.353663
No	Yes	T	Yes	45.899247, 6.129384
Yes	Yes	T	Yes	//
No	Yes	n.a.	No	43.610556, 3.876667
No	Yes	P	No	43.529722, 5.447222
No	Yes	P	Yes	43.529722, 5.447222
No	Yes	P	No	43.529722, 5.447222
No	Yes	P	Yes	43.529722, 5.447222
No	Yes	P	No	46.147551, -1.210261
No	Yes	P	No	43.689829, 7.301271
Yes	Yes	T	No	//
No	Yes	P	No	43.923056, 5.127778
No	Yes	P	No	43.710173, 7.261953
No	No	n.a.	No	43.106848, -0.673751
No	Yes	P	No	43.580278, 7.125
No	Yes	T	No	48.306124, -0.620935
No	Yes	P	No	46.364005, 5.346603
No	Yes	P	No	42.104248, 9.512429
No	Yes	P	No	44.924167, -0.271111

No	Yes	P	No	43.021111, 3.043889
No	Yes	T	No	44.09216, 2.999246
No	Yes	T	No	48.443854, 1.489012
No	No	n.a.	No	44.924167, -0.271111
No	Yes	n.a.	No	//
No	Yes	P/T	No	44.100556, 3.077778
No	Yes	P	No	41.387174, 9.159269
No	Yes	P	No	41.387174, 9.159269
No	Yes	P	No	41.387174, 9.159269
No	Yes	P	No	43.021111, 3.043889
No	Yes	P	No	45.648377, 0.156237
No	Yes	P	No	45.146949, 0.757221
No	Yes	P	No	43.021111, 3.043889
No	Yes	P	No	43.660153, 6.926492
No	Yes	T	No	48.565556, 2.06
No	Yes	T	No	48.565556, 2.06
No	Yes	P	No	43.602332, 7.006491
No	Yes	P/T	No	43.407778, 3.700556
No	Yes	P	Yes	43.296482, 5.36978
No	Yes	T	No	43.232951, 0.078082
Yes	Yes	T	Yes	//
Yes	Yes	T	Yes	//
No	Yes	T	No	43.407778, 3.700556
No	Yes	T	No	48.970782, 2.256869
No	Yes	P	No	43.610556, 3.876667
No	No	n.a.	No	48.846066, 2.188703
No	Yes	P	No	43.267681, 6.640711
No	Yes	P	No	43.646111, 0.586667
No	Yes	P	No	43.326263, 3.377885
No	No	n.a.	Yes	43.267681, 6.640711
No	No	n.a.	No	43.267681, 6.640711
No	Yes	P	No	43.267681, 6.640711
No	Yes	T	No	43.677079, 4.433703
No	No	n.a.	No	48.985761, 2.350813
No	Yes	T	No	49.038069, 2.360491
No	Yes	P	No	43.344167, 3.215556
No	Yes	P	No	43.344167, 3.215556
No	Yes	T	Yes	46.433063, -0.853614
No	Yes	n.a.	Yes	43.722322, 7.111703
No	Yes	T	No	48.81833, -3.473795
No	Yes	P	No	43.40655, 6.061187
No	No	n.a.	No	48.801408, 2.130122
Yes	No	n.a.	No	//
No	No	n.a.	No	43.710173, 7.261953

No	Yes	P	Yes	43.125556, 6.13
No	Yes	T	No	43.96341, 4.796959
No	Yes	P	No	43.710173, 7.261953
No	Yes	P	No	43.911315, 5.200176
No	No	n.a.	No	45.036291, 1.037587
No	Yes	T	No	45.036291, 1.037587
No	Yes	P	No	//
No	Yes	P	No	43.911315, 5.200176
No	Yes	P	No	43.296389, 5.483333
No	Yes	P	No	43.296389, 5.483333
No	Yes	P	No	43.296389, 5.483333
No	Yes	T	No	43.136418, 5.754186
No	No	n.a.	Yes	43.124228, 5.928
No	Yes	P	Yes	43.75299, 7.381835
No	Yes	P	No	43.124228, 5.928
No	No	n.a.	Yes	45.501124, 4.44043
No	Yes	P	No	43.334817, 5.756087
No	Yes	P	No	43.610556, 3.876667
No	No	n.a.	Yes	45.766714, 1.167562
No	Yes	P	No	43.72208, 7.405839
No	Yes	T	No	45.744161, -0.631667
No	No	n.a.	No	43.610556, 3.876667
No	Yes	P	No	43.610556, 3.876667
No	Yes	P	No	43.610556, 3.876667
No	Yes	P	No	45.648377, 0.156237
No	Yes	P	No	43.438959, 6.071791
No	Yes	P	No	43.559215, 5.393301
No	Yes	n.a.	No	48.749736, 2.459965
No	Yes	T	No	48.770878, 2.522163
Yes	Yes	T	No	//
Yes	Yes	T	Yes	//
No	Yes	T	No	48.556855, 2.550114
No	Yes	P	No	43.664817, 5.155542
No	Yes	P	No	43.555284, 5.602142
No	Yes	P	No	45.655485, 0.161095
No	Yes	P	No	45.864332, -0.506285
No	Yes	P	No	45.864332, -0.506285
No	Yes	P	No	45.864332, -0.506285
No	Yes	P	No	43.683448, 3.840085
Yes	No	n.a.	No	//
No	Yes	P	Yes	44.124667, 5.214217
Yes	No	n.a.	Yes	//
No	Yes	P	No	45.61349, 0.18178
No	Yes	P	No	45.61349, 0.18178



No	Yes	P	No	43.660153, 6.926492
No	Yes	P	No	43.660153, 6.926492
No	Yes	n.a.	No	48.709298, 2.38479
No	Yes	T	No	48.709298, 2.38479
Yes	Yes	T	No	//
No	Yes	P	No	44.393179, 4.753137
No	Yes	P	No	44.393179, 4.753137
No	No	n.a.	No	43.875204, 6.512101
No	Yes	P	No	43.783361, 6.955305
No	Yes	P	No	44.239147, 5.126847
Yes	Yes	T	No	//
Yes	Yes	T	No	//
Yes	No	T	Yes	//
Yes	No	T	Yes	//
Yes	Yes	P	No	//
Yes	Yes	P	No	//
Yes	Yes	P	No	//
Yes	Yes	T	No	//
Yes	Yes	T	No	//
Yes	Yes	T	No	//
Yes	Yes	T	No	//
No	Yes	P/T	No	//
No	Yes	P	Yes	43.2951, -0.370797
No	Yes	n.a.	No	43.710173, 7.261953
No	No	n.a.	Yes	43.610556, 3.876667
No	No	n.a.	Yes	47.903352, 1.234261
No	No	n.a.	No	43.102976, 5.878219
No	No	n.a.	Yes	//
No	Yes	P	No	45.487706, 0.355149
No	Yes	P	No	47.375865, 3.974876
No	Yes	P	Yes	41.387174, 9.159269
No	Yes	P	No	43.610556, 3.876667
No	Yes	P	No	43.184277, 3.003078
No	Yes	P	No	43.124665, 6.125104
No	Yes	P	No	43.710173, 7.261953
No	Yes	P	No	43.610556, 3.876667
No	Yes	P	No	//
No	Yes	P	No	45.744161, -0.631667
No	Yes	P	No	42.688659, 2.894833
No	Yes	P	No	41.387174, 9.159269
No	Yes	T	No	43.949317, 4.805528
No	Yes	T	No	46.311555, 3.416765
No	Yes	T	No	46.454772, -1.167062
No	Yes	T	No	48.117266, -1.677793

Yes	Yes	P	Yes	//
Yes	Yes	T	No	//
No	Yes	T	Yes	44.461111, 1.902778
No	No	n.a.	Yes	44.461111, 1.902778
No	Yes	P	Yes	41.422981, 9.220775
No	Yes	P	Yes	46.454772, -1.167062
No	Yes	T	No	43.774444, 7.4975
No	Yes	P	Yes	43.529722, 5.447222
No	Yes	P	No	43.598064, 5.445938
No	Yes	P	Yes	43.774444, 7.4975
No	Yes	T	No	47.875568, -4.106373
No	Yes	T	No	47.875568, -4.106373
No	Yes	P	Yes	43.646111, 0.586667
No	Yes	P	No	43.610556, 3.876667
No	No	n.a.	Yes	43.710173, 7.261953
No	Yes	P	No	43.700818, 7.300177
No	Yes	P	No	43.296482, 5.369780
No	No	n.a.	No	43.717533, 7.295514
No	Yes	P	Yes	41.406445, 9.169541
No	Yes	P	No	43.296482, 5.36978
No	Yes	P	No	43.610556, 3.876667
No	Yes	P	Yes	43.124228, 5.928
No	Yes	?	Yes	43.344167, 3.215556
No	Yes	P/T	No	43.404811, 5.053728
No	Yes	P	Yes	46.454772, -1.167062
No	Yes	P	Yes	43.774444, 7.4975
No	Yes	P	Yes	44.002722, 7.554131
No	Yes	P	No	43.774444, 7.4975
No	Yes	P	Yes	43.752541, 3.955276
No	Yes	P	Yes	43.646111, 0.586667
No	Yes	P	Yes	43.646111, 0.586667
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No	Yes	T	Yes	45.988917, 4.696849
No	No	n.a.	Yes	46.572727, -0.964886
No	Yes	P	No	43.393722, 6.316657
No	Yes	P	No	47.384882, 0.554293
No	No	n.a.	No	43.610556, 3.876667
No	Yes	P	No	43.559215, 5.393301
No	No	n.a.	Yes	43.393722, 6.316657
No	Yes	P	No	42.682090, 2.899657

Herbarium	Barcode or referen	Collector	Collection nu	Collection date		
				Day	Month	Year
B	B 10 0525364	F. Schultz	408	26	5	1849
B	B 10 0525361	Canut	391	29	5	1862
B	B 10 0525360	leg. ign.	391	n.a.	6	1896
B	B 10 0525359	H.L. Krause	30549	9	7	1910
BC	135239	leg. ign.	s.n.	20	5	1865
BC	833041-2	Sennen	s.n.	27	4	1899
BC	833040-2	C.-A Gérard	s.n.	12	6	1901
BC	1523	Marnac	s.n.	19	6	1911
BC	1543	L. Samat	6059	25	5	1930
BC	373730-3	G. Gavelli	s.n.	5	6	1963
BC	135237	Gerclard	s.n.	4	9	1980
BM	BM001209454	J.M. Delalande	s.n.	n.a.	9	1848
BM	BM001209450	M. Prost	s.n.	n.a.	6	1849
BM	BM000984476	J. Revellière	8	14	6	1854
BM	BM001209512	J.C. Ducommun	s.n.	26	5	1859
BM	BM001209455	F.S.A. Augé de Las	s.n.	10	6	1860
BM	BM001209509	E. Miciol	s.n.	4	6	1864
BM	BM001209509	E. Miciol	s.n.	4	6	1864
BM	BM000649099	[illegible]	s.n.	30	6	1867
BM	BM000984501	P.A. Kesselmeier	s.n.	n.a.	6	1867
BM	BM000984475	J-O. Debeaux	s.n.	30	5	1869
BM	BM000984475	J-O. Debeaux	s.n.	30	5	1869
BM	BM001209453	E.J. de Puyfol	s.n.	13	5	1874
BM	BM001209451	L. Anthouard	s.n.	9	6	1875
BM	BM001209452	A. Cartier	1487	20	5	1877
BM	BM001209505	E. Marçais	s.n.	n.a.	6--7	1878
BM	BM001209412	E. Reverchon	s.n.	14	6	1880
BM	BM001209507	N.D. Simpson	36543	n.a.	5	1883
BM	BM000984488	J. Bruneau	s.n.	19	6	1889
BM	BM001209508	J. Lloyd	s.n.	20	4	1891
BM	BM001209510	E.J.A. Gadeceau	s.n.	2	6	1893
BM	BM001209514	V. Bonafons	s.n.	n.a.	6	1894
BM	BM001209506	Septimin-Donat	111	8	6	1898
BM	BM000649100	P.R. Lowe	s.n.	22	5	1911
BM	BM000649110	J. Roffey	s.n.	15	6	1925
BM	BM000649076	P.J.R. Bamps	9002	12	6	1991
E	E00743450	G.W. Arnott	s.n.	18	5	1825
E	E00743402	Seringe	7	18	5	1825
E	E00743403	Seringe	127	22	5	1825
E	E00743439	F. Kuyes (?)	s.n.	n.a.	6	1839
E	E00743413	F. Rugel	s.n.	n.a.	6	1839
E	E00743413	F. Rugel	s.n.	n.a.	5	1839

E	E00445049	leg. ign.	s.n.	n.a.	6	1855
E	E00743421	J. Ball	s.n.	22	6	1862
E	E00743410	O. Debeaux	s.n.	24	5	1867
E	E00743409	H. Hanry	s.n.	n.a.	5	1867
E	E00743407	Elisée Reverchon	340	14	6	1880
E	E00743451	E. Reverchon	s.n.	17	6	1886
E	E00743432	E. Reverchon	s.n.	19	6	1886
E	E00743396	Elisée Reverchon	s.n.	19	6	1886
E	E00743419	G. Bentham	s.n.	n.a.	n.a.	ante 1884
E	E00743418	W. Wilson Saunde	s.n.	n.a.	n.a.	ante 1888
FI	DSN112	Durando (?)	s.n.	14	6	1843
FI	DSN107	Reuter	s.n.	n.a.	8	1843
FI	DSN439	P.F.A. Irat	s.n.	n.a.	9	1845
FI	DSN417	C. Marchesetti	408	26	5	1849
FI	DSN384	A. Chabers	s.n.	n.a.	6	1851
FI	DSN444	Ch. Pontarlier	s.n.	n.a.	6--7	1856
FI	DSN108	Parlatere	s.n.	22	6	1869
FI	DSN427	Masson (?)	s.n.	27	5	1870
FI	DSN431	H. Hervier-Basson	s.n.	27	5	1870
FI	DSN385	A. Chabers	s.n.	17	6	1881
FI	DSN443	V. Bach	s.n.	n.a.	7	1898
FI	DSN445	Franqueville	s.n.	n.a.	12	1841
FI	DSN446	C. Flahault	s.n.	14	6	1887
FI	DSN423	G. Gavelle	s.n.	5	6	1963
FR	FR-0121334	J.-C. Ducommun	s.n.	26	5	1859
FR	FR-0121331	P.A. Kesselmeier	s.n.	20	6	1867
FR	FR-0121333	N.Ch. Pontarlier	s.n.	1	7	1880
FR	FR-0121345	Stifani	s.n.	4	7	1912
FR	FR-0121347	R. Weber	s.n.	n.a.	5	1966
G	P6094975	Choisy	s.n.	n.a.	n.a.	1824
G	P6095020	Rodolph Rapin	s.n.	5	6	1832
G	P6094885	Requien	s.n.	n.a.	n.a.	1836
G	P6014889	Fauché	s.n.	n.a.	n.a.	1840
G	P6094976	A. de St Hilaire	s.n.	n.a.	6	1846
G	P6094908	Huet du Pavillon	s.n.	22	5	1846
G	P6014884	J. Lloyd	s.n.	23	6	1851
G	P6014882	Reuter	s.n.	n.a.	n.a.	1852
G	P6094977	Dr. Friedrich Sigm	s.n.	4	7	1857
G	P6095063	Dr. Dupin	s.n.	n.a.	6	1857
G	P6094904	E. Ayasse	s.n.	4	5	1859
G	P6094978	Dr. Friedrich Sigm	s.n.	10	6	1860
G	P6094982	Bélangier	s.n.	n.a.	n.a.	1862
G	P6095076	Fasson	s.n.	26	4	1862
G	P6094909	Alph. Moritz	s.n.	10	5	1863

G	P6094905	Ch. Verrier Livardis.n.		1	6	1873
G	P6094973	J.L.A. Bonneau s.n.		2	7	1876
G	P6094887	Dr. A. Bétrix s.n.		10	6	1877
G	P6094985	Bélangier s.n.		n.a.	5	1890
G	P6095059	Louis Amblard s.n.		20	8	1890
G	P6095070	Baraize, A. Perrier s.n.		n.a.	6	1892
G	P6095069	Roux, A. Perrier s.n.		n.a.	n.a.	1893
G	P6094888	W. Gugelmann 37/224		18	6	1907
G	P6094911	Louis-André Giroc s.n.		n.a.	6	1910
G	P6094907	M.K. Faust s.n.		26	5	1938
G	P6094996	Simone Vautier s.n.		13	6	1948
G	P6094928	Duperrex-Weber s.n.		14	6	1948
G	P6094927	Duperrex-Weber s.n.		8	6	1948
G	P6094995	L. Vautier s.n.		24	5	1949
G	P6094980	Charles Bélangier s.n.		n.a.	n.a.	ante 1864
G	P6094983	Dr. Montagne s.n.		n.a.	n.a.	ante 1866
G	P6094972	Chambion (?) s.n.		n.a.	6	ante 1879
G	P6094971	Cadet s.n.		n.a.	6	ante 1879
G	P6095066	Delessert s.n.		n.a.	n.a.	ante 1896
G	P6095066	Delessert s.n.		n.a.	n.a.	ante 1896
G	P6094979	Garrot s.n.		n.a.	n.a.	ante 1903
G	P6094886	Abbé Roquebrun s.n.		n.a.	7	ante 1907
HUJ	HUJHERB 131644	A. Danin 72-14-23		13	6	1972
K	K001092999	leg. ign. 7		18	5	1825
K	K001042848	E. Serafino 1487.1		n.a.	3	1828
K	K001042835	Liendon s.n.		n.a.	6	1847
K	K001042840	E. Bourgeau 2		25	5	1848
K	K001042801	leg. ign. s.n.		3	4	1867
K	K001042805	J.M.H. Borel s.n.		10	6	1867
K	K001042800	leg. ign. s.n.		14	5	1869
K	K001042815	J.C. Joad s.n.		24	4	1870
K	K001092994	Ed. Bonnet s.n.		4	9	1875
K	K001092996	A. Cartier s.n.		20	5	1877
K	K001092995	Ed. Marçais s.n.		n.a.	6--7	1878
K	K001092997	P. s.n.		n.a.	7	1899
K	K001042806	E. Ellman & N.Y. S 99		6	6	1925
K	K001042804	F.N. Hepper 8945		26	5	1990
K	K001042918	Requien s.n.		n.a.	n.a.	ante 1867
K	K001264135	M. Requien s.n.		n.a.	n.a.	ante 1867
K	K001042807	Lombardelly s.n.		n.a.	6	ante 1921
MA	MA-01-00156308	Mutel s.n.		n.a.	5	1843
MA	MA-01-00038767	F. Bruyas 2629		n.a.	6	1891
MA	MA-01-00038765	Fre. Sennen s.n.		6	7	1891
MA	MA-01-00650348	J.F. de Witte 15027		19	5	1961

MA	MA-01-00191210	G. Gavelle	s.n.	5	6	1963
MA	MA-01-00290893	G. Gavelle	s.n.	11	6	1965
MA	MA-01-00290896	G. Gavelle	s.n.	15	7	1965
MA	MA-01-00650332	J.F. de Witte	15814	20	5	1965
MA	MA-01-00650333	J.F. de Witte	16909	13	6	1967
MA	MA-01-00650349	J.F. de Witte	16269	2	6	1967
MA	MA-01-00204222	Bellot, Casaseca	s.n.	25	5	1972
MEL	MEL-2407544	Viguiet	s.n.	n.a.	7	1839
MEL	MEL-2319016	John Stuart Mill	s.n.	n.a.	5	1859
MPU	n.a.	Herbier fac de mé	s.n.	n.a.	n.a.	1803
MPU	n.a.	Guillon	s.n.	16	6	1820
MPU	n.a.	Herbier fac de mé	s.n.	2	6	1828
MPU	n.a.	Dunal	s.n.	31	5	1834
MPU	n.a.	Cambessèdes	s.n.	17	6	1835
MPU	n.a.	F. de Girard	s.n.	25	6	1837
MPU	n.a.	A. Irat	s.n.	n.a.	5	1842
MPU	n.a.	E. Cosson	s.n.	4	6	1846
MPU	n.a.	L. Liendon	391 a	n.a.	6	1847
MPU	n.a.	Planchon	s.n.	n.a.	5	1847
MPU	n.a.	Liendon	391	n.a.	6	1847
MPU	n.a.	Guillon	s.n.	2	7	1849
MPU	n.a.	P.F.A. Irat	s.n.	n.a.	9	1849
MPU	n.a.	P.F.A. Irat	s.n.	26	5	1849
MPU	n.a.	E. Le Sourd-Dussis	s.n.	n.a.	5	1849
MPU	n.a.	Hubert	s.n.	21	6	1851
MPU	n.a.	Dr Le Sourd	s.n.	26	6	1852
MPU	n.a.	Planchon	s.n.	n.a.	6	1854
MPU	n.a.	L. Pierre	s.n.	n.a.	n.a.	1858
MPU	n.a.	H. Hanry	s.n.	6	5	1860
MPU	n.a.	H. Hanry	3003	6	5	1860
MPU	n.a.	Dr Le Sourd	s.n.	29	5	1862
MPU	n.a.	Aubouy	s.n.	3	6	1863
MPU	n.a.	Aubouy	s.n.	3	6	1863
MPU	n.a.	leg. ign.	s.n.	20	5	1864
MPU	n.a.	Herbier André	s.n.	n.a.	n.a.	1864
MPU	n.a.	Dr Le Sourd	s.n.	n.a.	5	1866
MPU	n.a.	Aubouy	s.n.	18	5	1867
MPU	n.a.	Aubouy	s.n.	29	5	1870
MPU	n.a.	Brunet	s.n.	20	5	1871
MPU	n.a.	Bernardin Martin	s.n.	n.a.	6	1871
MPU	n.a.	A. Tholin	s.n.	n.a.	4	1876
MPU	n.a.	Neyra	s.n.	23	5	1876
MPU	n.a.	A.B.	s.n.	22	6	1876
MPU	n.a.	Aubouy	s.n.	4	7	1876

MPU	n.a.	A. Cartier	s.n.	20	5	1877
MPU	n.a.	A. Cartier	s.n.	20	5	1877
MPU	n.a.	J. Daveau	s.n.	n.a.	5	1879
MPU	n.a.	André	s.n.	n.a.	n.a.	1882
MPU	n.a.	Aubouy	s.n.	30	6	1884
MPU	n.a.	E.J. Neyraut	s.n.	29	5	1886
MPU	n.a.	docteur E. Magno	s.n.	n.a.	6	1886
MPU	n.a.	F. Mouret	s.n.	n.a.	6	1886
MPU	n.a.	E.J. Neyraut	4794	3	6	1887
MPU	n.a.	E.J. Neyraut	4794	3	6	1887
MPU	n.a.	E. Magnol	s.n.	22	6	1887
MPU	n.a.	Herbier C. Flahaut	s.n.	14	6	1887
MPU	n.a.	Aubouy	s.n.	31	5	1889
MPU	n.a.	Abbe A. Pons	s.n.	12	6	1889
MPU	n.a.	F. Bruyas	s.n.	n.a.	6	1891
MPU	n.a.	A. Guillon	s.n.	7	7	1892
MPU	n.a.	E.J. Neyraut	s.n.	28	5	1893
MPU	n.a.	C. Copineau	s.n.	26	5	1893
MPU	n.a.	Bertrand	217	10	6	1894
MPU	n.a.	Dr. Jouvence (?)	s.n.	n.a.	5	1896
MPU	n.a.	A. Raphélis	s.n.	n.a.	5	1896
MPU	n.a.	Faure	120	3	6	1898
MPU	n.a.	Faure	s.n.	3	6	1898
MPU	n.a.	Frère Sennen	s.n.	n.a.	n.a.	1899
MPU	n.a.	Frère Sennen	s.n.	n.a.	n.a.	1899
MPU	n.a.	Cassat	s.n.	5	7	1899
MPU	n.a.	Frère Sennen	s.n.	n.a.	n.a.	1899
MPU	n.a.	C.A. Gérard	4674	12	6	1901
MPU	n.a.	Frère Sennen	s.n.	n.a.	5	1901
MPU	n.a.	A. Guillon	s.n.	30	6	1902
MPU	n.a.	J. Stefani	s.n.	10	6	1903
MPU	n.a.	Fourès	s.n.	n.a.	6	1907
MPU	n.a.	J. de Vichet	s.n.	12	6	1914
MPU	n.a.	J. de Vichet	s.n.	28	5	1914
MPU	n.a.	P. Cousturier	s.n.	n.a.	4	1918
MPU	n.a.	Albaille	s.n.	15	4	1918
MPU	n.a.	Albaille	s.n.	15	4	1918
MPU	n.a.	J.B. Renaud	s.n.	5	6	1926
MPU	n.a.	E.J. Neyraut	s.n.	14	10	1936
MPU	n.a.	leg. ign.	s.n.	12	6	1956
MPU	n.a.	S.J. Albaille	s.n.	13	6	1959
MPU	n.a.	S.J. Albaille	s.n.	10--20	6	1959
MPU	n.a.	G. Gavelle	4269	15	6	1963
MPU	n.a.	G. Blanchet	s.n.	n.a.	6	1965

MPU	n.a.	G. Blanchet	s.n.	12	6	1966
MPU	n.a.	Santo	s.n.	12	6	1966
MPU	n.a.	E.J. Neyraud	s.n.	29--1	5--7	1893 & 18
P	P03175036	leg. ign.	117	22	5	1817
P	P03174919	Jacquemont	s.n.	n.a.	5	1821
P	P03175003	Leman	s.n.	n.a.	n.a.	1821
P	P03174952	A.P. de Candolle	s.n.	n.a.	n.a.	1822
P	P02810831	M. Emerie (?)	s.n.	n.a.	n.a.	1827
P	P03175014	W. de Schoenefel	s.n.	n.a.	n.a.	1828
P	P03174939	M. Bentham	s.n.	n.a.	n.a.	1834
P	P02391570	R.	s.n.	n.a.	6	1834
P	P02391570	R.	s.n.	n.a.	6	1834
P	P02575181	Dunal	s.n.	n.a.	n.a.	1835
P	P03174925	Perreymond	s.n.	n.a.	n.a.	1836
P	P03174925	Perreymond	s.n.	n.a.	n.a.	1836
P	P03174938	A. Lenormand	s.n.	n.a.	n.a.	1838
P	P02391512	P.F.A. Irat	753	15	6	1842
P	P03175006	Callou (?)	s.n.	n.a.	7	1844
P	P03174974	Schler (?)	s.n.	n.a.	5	1845
P	P02391534	A. Hertz (?)	s.n.	5	8	1845
P	P03174947	A. de St Hilaire	s.n.	n.a.	6	1845
P	P02575074	Cavalier	s.n.	n.a.	n.a.	1845
P	P02575099	A. de St Hilaire	s.n.	n.a.	6	1845
P	P02575069	Fée	s.n.	n.a.	n.a.	1845
P	P03175022	Henrici Lartigue	s.n.	15	7	1845
P	P02575075	F. Clement	s.n.	n.a.	n.a.	1846
P	P02575186	A.G. de Dives	18	10	6	1846
P	P03174965	De Lort	s.n.	n.a.	n.a.	1846
P	P03174951	Dr. Grenier	s.n.	n.a.	7	1846
P	P03174979	A. Leclerc	s.n.	n.a.	8	1847
P	P02575080	Boyé	50	n.a.	n.a.	1847
P	P02575073	L. Kralik	1849	4	6	1847
P	P03175011	Liendon	s.n.	n.a.	n.a.	1847
P	P03174935	Liendon	s.n.	n.a.	6	1847
P	P03175018	A. Guillon	s.n.	11	6	1850
P	P03175029	Leclerc	s.n.	n.a.	n.a.	1850
P	P02530409	Orth. André	s.n.	n.a.	6	1850
P	P02575180	J. Lloyd	s.n.	n.a.	6	1851
P	P03174969	Ch. Gontartiez	s.n.	n.a.	7--8	1852
P	P02575209	Ch. Pontarlier	s.n.	n.a.	6	1852
P	P03174964	Louis Amblard	s.n.	21	6	1853
P	P02575065	Loret	s.n.	n.a.	n.a.	1854
P	P02575208	Institut Botanique	s.n.	n.a.	9	1854
P	P02575066	leg. ign.	s.n.	n.a.	8--9	1854



P	P03174968	Lepeltier	s.n.	n.a.	7	1856
P	P03174994	J. Parseval	s.n.	7	6	1859
P	P02569726	Laguesse A.	s.n.	17	6	1859
P	P03174928	C. Billot	3003 (1868 n	n.a.	5--6	1860
P	P03174977	Ch. Ozanon	s.n.	n.a.	6	1860
P	P03174963	Ch. Ozanon	s.n.	n.a.	6	1860
P	P03174926	G. Thuret	61	20	6	1860
P	P03175034	H. de la Perraudiè	s.n.	27	6	1860
P	P02530405	L'Abbé Lelièvre	s.n.	3	6	1860
P	P02575210	D.M. Roux	s.n.	n.a.	6	1860
P	P02575210	D.M. Roux	s.n.	n.a.	6	1860
P	P03175002	[illegible]	s.n.	n.a.	4	1861
P	P02570013	E. Bourgeau	s.n.	17	5	1861
P	P03175024	E. Bourgeau	s.n.	27	5	1861
P	P03175030	E. Bourgeau	s.n.	27	5	1861
P	P03174944	E. Bourgeau	s.n.	27	5	1861
P	P03174994	E. Bourgeau	s.n.	27	5	1861
P	P03174953	Dr Lebel	s.n.	n.a.	6	1862
P	P00685973	A. Legrand	s.n.	1	7	1862
P	P03174962	Dr Bras	s.n.	21	7	1862
P	P03175017	Bocquillon	s.n.	n.a.	6	1863
P	P02569725	Th. Delacour	s.n.	n.a.	6	1863
P	P02575067	E.M. Sauvage	s.n.	27	5	1863
P	P03174923	Marcilly	s.n.	29	5	1865
P	P03174927	Bureau	s.n.	22	5	1865
P	P03175001	A. Franchet	s.n.	n.a.	6	1866
P	P02569729	Th. Delacour	s.n.	26	5	1866
P	P02569657	C. Damiens	s.n.	4--5	6	1867
P	P02391605	H. van Heurck	s.n.	n.a.	n.a.	1867
P	P03174997	O. Debeaux	s.n.	6	6	1869
P	P02305581	Warnier	22	n.a.	n.a.	1869
P	P02575211	Chauvin	s.n.	n.a.	6	1870
P	P02569998	H. Hervier-Basson	s.n.	27	5	1870
P	P02570065	leg. ign.	s.n.	29	5	1870
P	P02570009	Th. Delacour	s.n.	27	5	1871
P	P02570001	Ch. Pontarlier	s.n.	4	7	1871
P	P03175033	M. Franchet	s.n.	n.a.	n.a.	1872
P	P02569656	Th. Delacour	s.n.	1--2	7	1873
P	P05591715	leg. ign.	s.n.	n.a.	n.a.	1873
P	P02569993	H(?)aures	s.n.	n.a.	5	1874
P	P02569979	L. Anthouard	s.n.	1	6	1875
P	P03174940	leg. ign.	s.n.	n.a.	5	1875
P	P02530406	R.B.	s.n.	4	7	1875
P	P03174993	A. Cartier	s.n.	n.a.	5	1875

P	P03174993	A. Cartier	s.n.	n.a.	5	1875
P	P02570004	J. Gautier-Lacroze	s.n.	n.a.	6	1875
P	P03174990	E. Reverchon	s.n.	27	6	1877
P	P03174987	Ed. Marçais	s.n.	n.a.	8	1877
P	P02575169	J. Daveau	s.n.	28	5	1878
P	P02575207	E. Marçay	s.n.	n.a.	6--7	1878
P	P02569994	E. Marçay	s.n.	n.a.	6--7	1878
P	P02570005	E. Marçay	s.n.	n.a.	6--7	1878
P	P02391524	leg. ign.	s.n.	20	7	1878
P	P02391524	leg. ign.	s.n.	20	7	1878
P	P03174988	V. Retalon (or Me	s.n.	20	8	1878
P	P02570113	J.B. Barla	s.n.	n.a.	6	1881
P	P02569655	Th. Delacour	s.n.	10	6	1886
P	P03174934	E. Reverchon	s.n.	14	6	1886
P	P03174992	E. Reverchon	s.n.	19	6	1886
P	P02570104	leg. ign.	s.n.	6	7	1886
P	P03174986	L. Chevallier	s.n.	22	6	1887
P	P03175021	V. Auzat	s.n.	28	7	1888
P	P02391521	Hubert	s.n.	21	6	1891
P	P02575185	J.B. Barla	s.n.	30	5	1892
P	P02575204	E. Dupuy	s.n.	n.a.	6	1894
P	P02575184	J.B. Barla	s.n.	23	5	1895
P	P02575096	Ch. Hermant	s.n.	n.a.	6--7	1897
P	P02575206	S. Savouré	562c	7	6	1897
P	P02575219	J. Bozon	s.n.	12	6	1898
P	P03174980	R. Rotgès	s.n.	28	5	1898
P	P02575183	Cassat	s.n.	5	7	1899
P	P02570098	Fre Sennen	s.n.	n.a.	n.a.	1899
P	P03175040	H. Coste	s.n.	13	7	1899
P	P02575205	S. Savouré	695	16	11	1899
P	P02570111	H. Coste	323	n.a.	7	1900
P	P02570111	H. Coste	323	n.a.	7	1900
P	P02575188	J. Strici	s.n.	29	4	1901
P	P02575187	Ciprillon	s.n.	30	6	1902
P	P03175025	Hoschedé	s.n.	17	6	1902
P	P02569730	Sennen	s.n.	n.a.	5	1902
P	P02575189	E. Coraze	s.n.	25	6	1902
P	P00620192	Legrès	s.n.	3	7	1902
P	P04560803	Legrès	s.n.	3	7	1902
P	P02523825	Ch. Guffroy	111	n.a.	n.a.	1903
P	P03174950	G. Hibon	111	n.a.	n.a.	1903
P	P03174950	G. Hibon	111	n.a.	n.a.	1903
P	P03174942	G. Hibon	111	n.a.	6	1905
P	P02575157	W.R. Fontan	s.n.	15	6	1905

P	P02570110	L. Bee	321	n.a.	6	1906
P	P03175013	Dr. Lermoyez	93	n.a.	n.a.	1906
P	P02575137	J. de Vichet	s.n.	n.a.	6	1907
P	P03174982	A. et E.G. Camus	s.n.	19	6	1909
P	P02575098	Ch. Guffroy	s.n.	19	6	1910
P	P03174948	Humbert	s.n.	6	6	1910
P	P03174984	E.G. Camus	s.n.	n.a.	6	1911
P	P03174966	L'abbé Somers	s.n.	15	1	1911
P	P02575164	J.J. Weber	s.n.	29	5	1912
P	P02575077	J.B. Renaud	s.n.	n.a.	5--6	1914
P	P02575101	J.B. Renaud	s.n.	n.a.	5--6	1914
P	P02559213	Jean Guillet	93	29	7	1914
P	P03175016	L. Rodriguez	s.n.	7	9	1917
P	P02570112	J. Arènes	324	n.a.	5	1919
P	P02570066	leg. ign.	s.n.	6	5	1923
P	P03174958	Mariane de Gougis	s.n.	n.a.	n.a.	1925
P	P02575166	J. Arbost	s.n.	15	6	1926
P	P03174956	Mariane de Gougis	s.n.	n.a.	7	1927
P	P02575144	B. de Retz	284	21	7	1928
P	P03174955	Mariane de Gougis	s.n.	v	6	1930
P	P02575139	L. Samat	273 bis	25	5	1930
P	P02570109	L. Samat	322	25	5	1930
P	P02559215	CL. Legros	s.n.	5	6	1930
P	P02575136	B. de Retz	273 ter	14	7	1932
P	P03187614	E. Delpature	s.n.	n.a.	6	1932
P	P02575178	R. L'Hermite	s.n.	3	6	1936
P	P04560804	L. Rotereau	s.n.	n.a.	6	1936
P	P02575142	B. de Retz	14753	7	6	1938
P	P02575163	Mme Haffner	s.n.	14	8	1938
P	P02575072	Bournerias	1534	n.a.	6	1940
P	P00731924	E. Licent	s.n.	3	6	1941
P	P02559210	Henri Bouby	860	n.a.	8	1942
P	P03187615	E. Delpature	s.n.	n.a.	6	1943
P	P02575143	B. de Retz	23558	2	6	1947
P	P02559212	Henri Bouby	10.017	6	6	1948
P	P02569701	H. Gillet	s.n.	15	5	1954
P	P02575159	B. de Retz	39707	10	6	1956
P	P02575158	B. de Retz	39603	9	6	1956
P	P02559214	J. Charrier	s.n.	19	6	1957
P	P02575097	J. Charrier	3363	30	6	1958
P	P02559216	J. Raynal	2966	13	6	1958
P	P03024565	Jacqueline Tatignat	s.n.	22	6	1959
P	P02575070	E. Contré	4268	22	6	1962
P	P02589843	Paul Jovet	s.n.	13	7	1969

P	P03618090	G.G. Aymonin et	†28281	6	6	1973
P	P03618089	G.G. Aymonin et	†28271	6	6	1973
P	P03174972	Requien	s.n.	n.a.	n.a.	ante 1868
PAL	PAL-Gr 100355	Dr. Antoine Bras	s.n.	21	7	1861
S	S16-2583	Reverchon	s.n.	14	6	1880
S	S16-2850	Ch. Pont[...]	s.n.	1	7	1883
S	S16-2827	Carl de Geer	s.n.	8	4	1883
S	S16-2603	Gombault	s.n.	7	6	1903
S	S16-2584	C. Bicknell	s.n.	4	5	1906
S	S14-14265	Hj. & A. Hafstroem	s.n.	18	7	1911
S	S16-2912	Hj. Hafstroem	s.n.	18	7	1911
TO	dscn5682	[illegible]	s.n.	17	6	1873
TO	dscn5647	Baraize	s.n.	n.a.	6	1882
TO	dscn5660	J. Stefani	s.n.	10	6	1903
UPS	V-738373	Meddelad af S.N.	s.n.	n.a.	n.a.	1823
UPS	V-738026	A. de Saint-Hilaire	s.n.	n.a.	5	1846
UPS	V-738322	Smet[...] (?)	s.n.	n.a.	5	1855
UPS	V-738025	Alphonse Authem	s.n.	n.a.	6	1872
UPS	V-738025	Alphonse Authem	s.n.	n.a.	6	1872
UPS	V-737956	Ch. Pontarlier	s.n.	10	7	1880
UPS	V-738372	Carl de Geer	s.n.	n.a.	5	1883
UPS	V-738355	Elisée Reverchon	s.n.	20	5	1886
UPS	V-738006	Carl de Geer	s.n.	8	4	1893
W	1996-11639	A. Tillet	s.n.	n.a.	7	1874
W	1996-11638	Cartier	s.n.	n.a.	5	1895
W	16409	Marnac	6	19	6	1911
W	2000-13105	Froebe	7832	21	5	1977

Country	Collection locality	Other notes	c Flower morpl	Presence of c
France	Champs et vignes près Auch (Ger.)	n.a.	P	Yes
France	Coteaux du Vinaigrié près Nice.	Relighiae Mai	P	Yes
France	champs Montpellier	Relighiae Mai	P	No
France	Strassburg, Neudorf alter (...?)	plena	T	Yes
France	cambes (gir)	Dans les haies	T	Yes
France	aude: la nouvelle	Friche	P	Yes
France	Corse: Bonifacio	sous les oliviers	P	Yes
France	Bouches-du-Rhone: luynes	champs et lie	P	Yes
France	Bouches-du-Rhone: La Valentine. Friche	n.a.	P	Yes
France	Grasse	Talus, fossés	P	No
France	Lyon	n.a.	P	No
France	Saintes, Charente Inf.	n.a.	P	Yes
France	Env. de Toulouse	n.a.	P	No
France	Rogliano	n.a.	P	No
France	Mt. Pharon, près Toulon	n.a.	P	No
France	Roquefavour	n.a.	P	Yes
France	St. Canat (Bouches-du- Rhône)	n.a.	P	Yes
France	St. Canat (Bouches-du- Rhône)	n.a.	T	Yes
France	Moissons a Soubise (Charente-Inférieure)	n.a.	P	Yes
France	Bastia, Insel Corsika	Früchte	P	Yes
France	Bastia	Collium incult	P	No
France	Bastia	Collium incult	T	No
France	Environs de Costebelle, au dessus du Car	Terrain calcaire	P	Yes
France	[illegible] près de Gornières	Moissons de t	P	Yes
France	Le Luc	bords de char	P	Yes
France	Beaupuy (près Toulouse), alt. 200 m.	n.a.	P	No
France	Canetto près Bonifacio	Lieux incultes	P	No
France	Hyères	n.a.	P	No
France	de la Rochelle a la Palisse (Chte Inf.)	n.a.	P	No
France	Magnil près Luçon (Vendée)	n.a.	P	Yes
France	Collines de la Gardiole, près Mireval	n.a.	P	No
France	Environs de Nice	n.a.	P	Yes
France	Béziers: Pradines le Haut	n.a.	P	No
France	Mt Agel, S.E Face above Grand Corniche,	n.a.	P	No
France	Pont de la Fou	n.a.	P	No
France	Mollans-sur-Ouvèze (Drôme): ancienne v	Flanc sud du t	P	Yes
France	Narbonne	n.a.	P	No
France	Narbonne	n.a.	P	No
France	Fontfroid, Pyrénées Orientales	n.a.	P	No
France	Perpignan, Pyrénées Orientales	n.a.	P	No
France	Perpignan	n.a.	P	No
France	Toulon	n.a.	P	No

France	Brousse	n.a.	P	No
France	Herault, prope Valergues	n.a.	P	No
France	Bastia, Corse	n.a.	P	No
France	Le Luc, Var	n.a.	P	Yes
France	Bonifacio, Canetto	n.a.	P	No
France	Alpes Maritimes, Fontan	Moissons	P	Yes
France	Fontan, Alpes Maritimes	Moissons	P	Yes
France	Alpes Maritimes, Fontan	Moissons	P	Yes
France	Montpellier	n.a.	P	No
France	near Nice	n.a.	P	No
France	Nice, La grotte d'amour, sur le Mont Alban	n.a.	P	Yes
France	Nice	n.a.	P	Yes
France	[...] circa Puy [...] (Gers)	n.a.	P	Yes
France	champs et vignes près Auch	n.a.	P	Yes
France	Corsica	n.a.	P	Yes
France	Vendée: Luçon	n.a.	P	Yes
France	Nizza	n.a.	P	No
France	Crest (Drôme)	n.a.	T	No
France	Crest (Drôme), Morillons	n.a.	T	Yes
France	Dans pres Bastia Corse	n.a.	P	Yes
France	Lot: Sérignac	250 m, sol. ca	T	Yes
France	Saint Martory	In arvis	T	Yes
France	Montpellier	n.a.	P	Yes
France	Grasse	talus, bords c	P	No
France	Provence-Alpes-Côte d'Azur, Mt. Pharon,	n.a.	P	Yes
France	Corse	n.a.	P	No
France	Pays de la Loire, Les Magnils (Vendée int)	n.a.	P	Yes
France	Bonifacio	sous les olivie	P	No
France	Provence-Alpes-Côte d'Azur, Trockenhan	Trockenhang	P	No
France	Marseille	n.a.	P	Yes
France	Castelneau près Montpellier	n.a.	P	No
France	Avignon	n.a.	P	No
France	Corsica	dans les terre	P	No
France	Montpellier	n.a.	P	No
France	Prope Nicoam	In cultis	P	Yes
France	La Rochelle, à chef de Baie	n.a.	T	No
France	Villefranche	ex oliveto (Hc	P	Yes
France	Perpignan	n.a.	P	Yes
France	Circa Monpelicean	n.a.	P	No
France	près de Nice	Dans les chan	P	Yes
France	Roquefavour près Marseille	n.a.	P	Yes
France	Toulon	n.a.	P	Yes
France	Toulon	n.a.	P	No
France	Quartier des Vinaigriers à Nice	n.a.	P	No

France	Bords du Lez près Montpellier	n.a.	P	No
France	Mauguio (Hérault), à Mézouls	n.a.	P	Yes
France	Menton, dans les environs Cap Martin	n.a.	P	No
France	Toulon	n.a.	P	Yes
France	Lot-et-Garonne, Chabrity, commune de F	Champs des c	P	No
France	Environs de Marseille (Bouches du Rhône	Champs	P	No
France	Près Marseille (Bouches du Rhône)	Champs aux c	P	No
France	Cannes	sous les olivie	P	Yes
France	Var: Draguignan	n.a.	P	Yes
France	Bord moyenne corniche entre Monaco et	n.a.	P	No
France	Fontaine de Vaucluse	n.a.	P	No
France	Var: plan d'Aups	n.a.	P	No
France	Var: Aups	n.a.	P	No
France	Bouches du Rhône, Montmajour	n.a.	T	No
France	Lourmarin	n.a.	P	No
France	Toulon	n.a.	P	No
France	Toulon	n.a.	P	No
France	Narbonne	n.a.	P	No
France	Montpellier	n.a.	P	No
France	Montpellier	n.a.	T	No
France	Département de l'Aude	n.a.	T	Yes
France	Alpes-Maritimes	Terrain vague	P	No
France	6 km. SW of Montpellier to Sete.	Garrigue, terr	P	No
France	Narbonne	n.a.	P	No
France	Corsica	inter segetes	P	No
France	Hérault, Montpellier	Champs	P	No
France	Environs de Toulon, Fort Rouge	n.a.	P	Yes
France	Menton	Frequent und	P	Yes
France	Vaucluse, au pied du mt Ventoux, près de	Bords des cha	P	Yes
France	Road near Hôtel d'Italie, Menton	n.a.	P	Yes
France	Mentone. Monte Carlo.	n.a.	P	Yes
France	Route de Ste Anne près Dijon (Côte d'Or)	n.a.	T	No
France	Le Luc (Var)	Bords des cha	P	Yes
France	Beaupuy (près de Toulouse), Hte Garonn	Champs et ha	P	Yes
France	Aix-en-Provence	n.a.	P	Yes
France	Pyrénées Orientales, Villefranche	1500 ft, grow	T	No
France	Alpes-Maritimes, Cipières	Field edge wi	P	No
France	Avignon	n.a.	P	Yes
France	Avignon	n.a.	P	Yes
France	Près Uzès, remonte jusqu'à Vigan	Le long des cl	P	Yes
France	Lyon. Blés près de St. Alban	n.a.	T	No
France	Bouches-du-Rhône: Aix	bords gazonn	P	Yes
France	Béziers	n.a.	T	Yes
France	Les Arisquiers (Hérault)	n.a.	P	No

France	Grasse (AM)	Fossés, lieux	P	No
France	Grasse (AM)	Champs, talu	P	No
France	Region Provence-Alpes-Cote d'Azur, De	champs incul	P	Yes
France	Alpes-Maritimes, Villeneuve Loubet	Alt.: 39 m.	T	No
France	Alpes-Maritimes, Gourdon	Alt.: 800 m.	P	No
France	Alpes Maritimes, Saint Vallier-de-Thiey	Alt.: 800 m.	P	No
France	Pova do Conde. Castanheda	n.a.	P	No
France	Languedoc-Roussillon, Montpellier.	n.a.	P	Yes
France	Languedoc-Roussillon, Montpellier near 1	n.a.	P	Yes
France	La Rochelle	n.a.	T	No
France	Perpignan, [illegible]	n.a.	P	No
France	Maguelone	n.a.	P	No
France	Monte Grosso près de Nice	n.a.	P	No
France	Fabrègues	champs	P	No
France	de la gaillarde à la mosson (? Montpellier	bord de cherr	P	No
France	Auch (Gers)	n.a.	T	No
France	Toulon, Fort Rouge	n.a.	P	Yes
France	Montpellier, Hérault	champs	P	No
France	Montpellier	n.a.	P	No
France	Montpellier	champs	P	Yes
France	environs d'Angoulême	dans les vign	P	Yes
France	Puycasquier (Gers)	n.a.	P	Yes
France	près d'Auch	champs et vig	P	Yes
France	Richemont (Charente)	échappée de	T	No
France	Point de Chef de Baie (La Rochelle ?)	n.a.	T	No
France	Bourges	décombres au	T	No
France	Montpellier	n.a.	P	No
France	Montpellier	n.a.	P	No
France	Le Luc (Var)	bords des cha	P	Yes
France	Le Luc (Var)	bords de char	P	Yes
France	coteau du Vinaigrié près Nice	n.a.	P	Yes
France	Pézenas	champs, vign	P	Yes
France	Pézenas	champs, vign	T	Yes
France	Antibes	n.a.	P	No
France	Auch	n.a.	P	Yes
France	Le Luc (Var)	liens incultes	P	Yes
France	Saint Félix de Lodez	n.a.	P	No
France	Lodève au chemin vieux de Lauroux	n.a.	P	No
France	Saint Zacharie (Var)	moissons	P	No
France	Saint Martin de Londres (Hérault)	bords des che	P	Yes
France	Toulon	champs	P	No
France	Montagne de Cette (= Sète), Hérault	n.a.	P	No
France	Montpellier à Montplaisir	haies et char	P	No
France	Montpellier	bord des chei	P	Yes



France	Le Luc (Var)	bords des cha	P	Yes
France	Le Luc (Var)	bords des che	P	Yes
France	Cette (Sète)	n.a.	P	No
France	Menton, sur terre italienne bois Grimaldi	n.a.	P	No
France	Murviel-lez-Montpellier	bords et talus	P	No
France	Montbazin (Hérault)	talus du chen	P	No
France	Mausson	n.a.	P	Yes
France	Béziers, grand fossé du pré-au-nègre	n.a.	P	Yes
France	haies à Balaruc	n.a.	P	No
France	bord chemin Montpellier	n.a.	P	No
France	La Gaillarde	n.a.	P	No
France	Valmaillargues près Montpellier	n.a.	P	No
France	Aniane	bords des cha	P	No
France	Grasse	n.a.	P	No
France	Aix (Bouches-du -Rhône)	bords gazonn	P	Yes
France	Angoulême	n.a.	P	Yes
France	Cette (Sète)	coteaux mari	P	No
France	Saint Guilhem le Désert (Hérault)	n.a.	P	No
France	Seillans (Var)	champs de bl	P	Yes
France	Agde (Hérault)	n.a.	P	No
France	Montpellier, champs de l'école d'agricult	n.a.	P	No
France	Nyons (Drôme)	n.a.	P	No
France	Nyons (Drôme)	moissons	P	No
France	La Nouvelle (Aude)	n.a.	P	No
France	La Nouvelle (Aude)	friche	P	No
France	Fronsac (Gironde)	champs de bl	P	Yes
France	La Nouvelle (Aude)	friche	P	No
France	Corse, Bonifacio	sous les olivie	P	No
France	La Nouvelle (Aude)	n.a.	P	No
France	environs d'Angoulême	moissons, cot	P	No
France	Corse, Cavallo morto près Bonifacio	sous les olivie	P	Yes
France	Millau (Aveyron)	ravin (?)	P	No
France	Darnieux	lieux en friche	P	No
France	Haies à la Coste	n.a.	P	Yes
France	Fréjus	plaine	P	Yes
France	Maraussan & Ardouane	bord de senti	P	No
France	Maraussan & Ardouane	bord de senti	T	No
France	Béziers, en dessous du canal	pentés herbe	P	No
France	Savonnières (Indre-et-Loire), route de Vil	pièds des mu	T	No
France	Les Baux du Ventoux	400 m	P	No
France	Montpellier, environs hopital saint-Eloi, \	n.a.	P	No
France	Montpellier, hauteurs sur la rive droite d	n.a.	P	Yes
France	Grasse (Alpes-Maritimes)	lieux incultes,	P	No
France	Lavalette (près Montpellier)	friches	P	No

France	Murviel-Les-Montpellier (Hérault)	bord de char	P	No
France	Vaucluse: Les Baux de Vaucluse	n.a.	P	No
France	Bordeaux; remblais touchant le parc de l	n.a.	T	No
France	Toulon, au bas du Fort rouge	n.a.	P	No
France	Toulon, gorges d'Ollioules	n.a.	P	No
France	Nismes	n.a.	P	No
France	Montpellier	n.a.	P	Yes
France	Provence	n.a.	P	No
France	Courbevoie. Environs de Paris. Habitat in	n.a.	T	No
France	Montpellier	n.a.	P	No
France	Lourmarin	n.a.	P	No
France	Lourmarin	n.a.	P	No
France	Montpellier	n.a.	P	Yes
France	Grasse	n.a.	P	Yes
France	Grasse	n.a.	T	Yes
France	Grasse	n.a.	P	No
France	Auch (Gers)	n.a.	P	No
France	Perpignan, à Castel-Roussillon	n.a.	P	No
France	Charente: vignes de Brudy	n.a.	P	No
France	Angoulême, Charente	champs cultiv	P	Yes
France	Montpellier, sur le bord du chemin du M	n.a.	P	No
France	Toulon	n.a.	P	No
France	Montpellier	sur le bord du	P	No
France	Montpellier	n.a.	P	No
France	Auch	n.a.	P	Yes
France	Bonifacio (Corse)	n.a.	P	No
France	Edon (Charente)	observée éga	P	Yes
France	Narbonne	n.a.	P	Yes
France	Nîmes	Bord des char	T	Yes
France	Environs d'Angoulême	dans les char	P	No
France	St André près Montpellier	n.a.	P	No
France	Montpellier	Bord des char	P	No
France	Montpellier, Hérault	Champs	P	Yes
France	Montpellier, Hérault	Champs	P	No
France	Env. d'Angoulême	n.a.	P	No
France	Montpellier (Hérault)	n.a.	P	No
France	Montpellier, champs	n.a.	P	No
France	La Rochelle	n.a.	P	No
France	Dans quelques champs seulement de la c	Mr. Letourne	P	Yes
France	Les Magnils (Vendée)	près Luçon, d	P	No
France	Lot-et-Garonne. Corne, près de Chabrity,	n.a.	P	No
France	Saintes (Charente maritime)	Spontanée da	P	No
France	Auch	moissons (sp	T	No
France	Auch	n.a.	T	Yes

France	Environs de Luçon (Vendée)	n.a.	P	No
France	Toulon, les Sablottes	n.a.	P	No
France	Villeneuve les maguelonne (Hérault)	n.a.	P	No
France	Luc (Var)	Bords des cha	P	Yes
France	Villanière, collines sèches	Plantes du ve	P	No
France	Villanière, collines sèches	Plantes du ve	P	No
France	Antibes (Alpes-Maritimes)	n.a.	P	No
France	Montredon près Marseille	n.a.	P	No
France	Montredon: collines	n.a.	P	No
France	St Pons (Bouches du Rhône)	Vallon de St F	P	No
France	St Pons (Bouches du Rhône)	Vallon de St F	T	No
France	Toulon	n.a.	P	No
France	Nice (Alpes Maritimes)	champs incult	P	No
France	Nice	Champs incult	P	No
France	Nice	Champs incult	P	No
France	Nice	Champs incult	P	Yes
France	Nice	Champs incult	P	Yes
France	Béziers	n.a.	P	No
France	Rivesaltes	n.a.	P	No
France	Aveyron: gorges d'Estrabols, <u>Cm</u> de Salva	n.a.	T	Yes
France	Cavaillon, Vaucluse	n.a.	P	No
France	Montagne de St Jacques sur Cavaillon (V	n.a.	P	No
France	Grabels	moissons à G	P	No
France	Ile Ste Marguerite	n.a.	P	No
France	Sous les oliviers, près de Menton (Alpes-	n.a.	P	No
France	Tayac, les Eyzies (Dordogne)	n.a.	P	Yes
France	Ile verte près La Ciotat, Bouches du Rhôn	n.a.	P	No
France	Vaucluse	n.a.	P	No
France	près Nice	lter italicum	P	No
France	Corse, Bastia	colline sèche	P	No
France	Nemours	n.a.	P	No
France	Agen	n.a.	P	No
France	Crest (Drôme)	moissons	T	No
France	Crest	moissons	T	No
France	Orange (Vaucluse)	Mourrarouge	P	No
France	Les Magnils (Vendée)	près Luçon, d	P	No
France	Cheverny (Loir et Cher)	Herbier de pli	P	No
France	Vaucluse	bord de la roi	P	No
France	Jourdan	sans doute éc	T	No
France	Toulon (Var)	lieux incultes	P	No
France	Gorniès (Hérault)	moissons, prè	P	No
France	Montpellier	n.a.	P	Yes
France	Les Magnisles, près Luçon	n.a.	P	Yes
France	Le Luc (Var), haies et lieux incultes	n.a.	P	Yes

France	Le Luc (Var), haies et lieux incultes	n.a.	T	Yes
France	Clermont	subspontané	T	No
France	Flassan	moissons	P	No
France	Beaupuy (près de Toulouse)	n.a.	P	No
France	Montagne de Celle (Hérault)	n.a.	P	No
France	Beaupuy (Haute Garonne)	Champs et ha	P	No
France	Beaupuy (Haute Garonne)	Champs et ha	P	No
France	Beaupuy (Haute Garonne)	Champs et ha	P	No
France	Millau	n.a.	P	No
France	Millau	n.a.	T	No
France	Monsempron Libos (Lot-et-Garonne)	n.a.	T	Yes
France	Drap (06)	région littora	P	No
France	Sérignan (Vaucluse)	Bord des cha	P	No
France	Fontan	Alpes-Maritin	P	No
France	Fontan	moissons	P	Yes
France	Belle Ile en Mer (Morbihan)	provenant de	T	Yes
France	Carcassone (Aude), moissons vers St Jear	n.a.	P	No
France	Annecy	carrières	T	Yes
France	Pointe du Chef de Baie	n.a.	P	No
France	Montboron (Alpes Maritimes)	région littora	P	No
France	Fontaine de Vaucluse	n.a.	P	No
France	Nice (Alpes Maritimes)	région littora	P	No
France	Antibes	ça et là dans l	P	No
France	Mayenne	sur le chemin	T	No
France	Salavre (Ain)	terre sablonn	P	No
France	Corse: Aleria, domaine de Casabianda	n.a.	P	No
France	Fronsac (Gironde)	les champs de	P	No
France	La nouvelle (Aude)	var. minor Bo	P	No
France	Arsyron: Peyre, route de Comprégnac	Var. minor Bc	T	No
France	Chartres (Eure et Loir)	chemin, long	T	No
France	Millau (Aveyron)	côte de St Est	P	No
France	Millau (Aveyron)	côte de St Est	T	No
France	La Nouvelle (Aude)	var. minor Bo	P	No
France	Angoulême	moissons calc	P	No
France	Dord. Champs de Granbges	n.a.	P	No
France	Aude: La Nouvelle	n.a.	P	No
France	Grasse (Alpes Maritimes)	de Mouans Si	P	No
France	St Germain (Seine et Oise)	n.a.	T	No
France	St Germain (Seine et Oise)	n.a.	T	No
France	Le Val d'Œuf, Cne de Mougins (Alpes Ma)	n.a.	P	No
France	Cette	n.a.	P	No
France	Cette	n.a.	T	No
France	Environs de Marseille	(Sté bat. de F	P	Yes
France	Tarbes (Hautes Pyrénées)	route de Pau	T	No

France	Sète (Hérault)	Montagne de	T	No
France	Sannois (S. et O.)	n.a.	T	No
France	Montpellier (Hérault)	haies	P	No
France	Saint-Tropez, Sainte-Anne	n.a.	P	No
France	Duran près Auch (Gers)	n.a.	P	No
France	Entre Béziers et Agde, garrigues de Preig	n.a.	P	No
France	Saint-Joseph, Saint-Tropez. Var	n.a.	P	No
France	Saint-Gilles / Gard	n.a.	T	No
France	Ezanville	champ en boi	T	No
France	Béziers (Hérault)	tertres herbe	P	No
France	Béziers (Hérault)	tertres herbe	P	No
France	près de Chaix, Vendée	sur la route d	T	Yes
France	La Clarté, près Perros Guirrec	bord des cher	T	No
France	Brignoles (Var)	coteaux vers	P	No
France	Hyères	n.a.	P	Yes
France	Villeneuve les Avignon	n.a.	T	No
France	Nice (Alpes Maritimes)	champs sous	P	No
France	Gordes	n.a.	P	No
France	Plazac (Dordogne)	route de Bar	T	No
France	Gordes	n.a.	P	No
France	La Valentine (Bouches du Rhône)	friche à Mont	P	No
France	La Valentine (Bouches du Rhône)	friche à Mont	P	No
France	Bandol (Var)	Champs & mc	T	No
France	Laghet (Alpes maritimes)	route de la Tr	P	Yes
France	Toulon	n.a.	P	No
France	Sainte Baume (Provence)	n.a.	P	No
France	Montpellier	n.a.	P	No
France	Cap d'Ail (Alpes maritimes)	garrigue le lo	P	No
France	Saintes (Charente maritime)	n.a.	T	No
France	Montpellier (Hérault)	champs	P	No
France	Montpellier (Hérault)	Plan des 4 sei	P	No
France	près d'Angoulême (Charente)	Champs	P	No
France	Le Val (Var)	n.a.	P	No
France	Saint Maximin (Var)	entre la ville e	P	No
France	Sucy-en-Brie (Seine-et-Marne)	Moissons	T	No
France	Seine-Port	Echappé jardi	T	No
France	Aurons (Bouches du Rhône)	garrigues et c	P	No
France	Vauvenargues	près du Châte	P	No
France	Charente maritime, Lhoumeau	moissons	P	No
France	Laleu (Charente Maritime)	dans un char	P	No
France	St Clément (Hérault)	n.a.	P	No
France	Vaucluse: Bédoin, chemin vers la ferme L	n.a.	P	Yes
France	Puymoyen (Charente)	champ pierre	P	No
France	Athis-Mons (Essone), terrain encore vagu	un seul indivi	T	No

France	Montelimar (Ardèche-Drôme). La Garde	n.a.	P	No
France	Montelimar (Ardèche-Drôme). La Garde	n.a.	P	No
France	Notre Dame de Pau (py or)	n.a.	P	Yes
France	Aveyron: Canton de Villeneuve, environs	n.a.	T	Yes
France	Corse. Bonifacio a Canetto	n.a.	P	Yes
France	Gallica. Luçon	n.a.	P	Yes
France	Provence-Alpes-Cote d'Azur-Menton. Ro	n.a.	T	No
France	Coutronne (massif de la S: tb=Baume) B.	n.a.	P	No
France	Menton. Alp. Mar	n.a.	P	Yes
France	Bretagne, Frankrike, Benodet	n.a.	T	No
France	Bretagne, Frankrike, Benodet	n.a.	T	No
France	Nice, sur le Mont Alban	n.a.	P	No
France	champs, Marseille, bouches du rhône	n.a.	P	No
France	Corse: sous les oliviers de Cavallomorto	n.a.	P	Yes
France	Provence-Alpes-Côte d'Azur: Bouches-du	n.a.	P	No
France	Languedoc-Roussillon: Hérault, Montpell	n.a.	P	No
France	Provence-Alpes-Côte d'Azur: Var, champ: Lieux pierreu:		P	Yes
France	Provence-Alpes-Côte d'Azur: Bouches-du Lieux incultes		P	No
France	Provence-Alpes-Côte d'Azur: Bouches-du Lieux incultes		T	No
France	Pays de la Loire: Vendée, Les Magnils [Le Inter segetes.		P	Yes
France	Provence-Alpes-Côte d'Azur: Alpes-Marit	n.a.	P	Yes
France	Provence-Alpes-Côte d'Azur: Alpes-Marit Moissons		P	Yes
France	Provence-Alpes-Côte d'Azur: Alpes-Marit	n.a.	P	No
France	Champs à Gleizé, près Villefranche-s	n.a.	T	Yes
France	Le Luc (Var)	haies, lieux in	P	No
France	Bouches du Rhone: Luynes	champs et lie	P	No
France	Perpignan, campus Univ	n.a.	P	No

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