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The discovery of the Sardinian Flora (XVIII-XIX Centuries)

Abstract

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The history of the floristic exploration of Sardinia mainly centres round the works of G.G. Moris, who in the first half of the XIX century described most of the floristic patrimony of the island. But it is important to know the steps he took in his census, the areas he explored, his publications, motivations and conditions under which he wrote the "Stirpium sardoarum elenchus" and the three volumes of "Flora sardoa", a work moreover which he left incomplete. Merit is due to Moris for bringing the attention of many collectors, florists and taxonomists to the Flora of the Island, individuals who in his foot-steps helped to complete and update the floristic inventory of the island. Research into the history of our knowledge of the Sardinian Flora relies heavily on the analysis of botanical publications, but many other sources (non-botanical texts, chronicles of the period, correspondence) also furnish important information. Finally, the names, dates and collection localities indicated on the specimens preserved in the most important herbaria were fundamental in reconstructing the itineraries of the sites Moris visited. All these sources allowed us to clarify several aspects of the expeditions, floristic collections and results of his studies. The "discovery phase" of Sardinian Flora can be considered over by the end of the XIX century with the publication of the "Compendium" by Barbey (1884-1885) and "Flora d'Italia" by Fiori & Paoletti (1896-1908).

Knowledge of the Sardinian Flora grew very gradually over time and still today cannot be considered complete if, as is true, new species are still described and many taxonomically obscure groups still await clarification. On the whole, discovery of the Flora of Sardinia proved to be rather late compared with that of other territories because of the insular isolation and the difficulty of access to several of the inland territories. Exploring Sardinia in the XVIII and XIX centuries was no easy task. There were hardly any roads, even the ones most commonly used today: the very back bone of the Island, the Carlo Felice, was only completed in 1829. People usually travelled on horseback. Since there were no accommodation facilities, one had to sleep in the open or rely on the hospitality of high-ranking families with the help of letters of introduction. Some areas were dangerous because they were frequented by highwaymen or fugitives, others because of malaria ("Intemperie" or "inclemency"). To appreciate the environmental and social conditions of Sardinia during the first half of the XIX century, the reader is referred in particular to the detailed descriptions by Angius in Casalis (1851) and the numerous references by Della

Marmora (1826, 1857). The latter, among other things, was himself victim of an attack that nearly cost him his life.

The first vague news we have of the Sardinian Flora dates back to Pliny (I century a D). A short list of species, perhaps second-hand and in part inexact, can be found in the naturalistic work by Fara (1580).

For the first real contribution to the knowledge of the island Flora, credit must go to Allioni (1759) who availed himself of the collections of Michele Piazza, an illustrious surgeon from Piedmont who from 1748 carried out his profession in Cagliari. Allioni's publication only lists 136 species designated with pre-Linnean nomenclature; on the whole they are common plants, but there are also some species that have not been confirmed by later researchers (Arrigoni 1986). The species reported by Allioni were likely collected along the roadside during his travels. However, Moris did not consider it opportune to confirm eight of the species pertaining to this first contingent, and indeed did not include them in his three volumes of "Flora sardoa" (1837-1859).

Piazza was apparently commissioned by the Ministry of the Kingdom of Bogino to compile an inventory of the plants of Sardinia; his manuscripts survived thanks to Mattiolo who retrieved them from his heirs. They were later interpreted and published by Terracciano (1914-1930). 818 vascular species are reported. Perhaps encouraged by Allioni, Piazza intended to realise a true and proper Flora of Sardinia.

Among the first occasional explorers in search of the insular flora, mention should be made of Martin Vahl, a pupil of Linneus, who went to Cagliari before 1804.

In 1822, Giuseppe Giacinto Moris arrived in Sardinia from Piedmont on his appointment as Professor of Clinical Medicine at the University of Cagliari. When he was in Turin, Moris had been a young student of first Balbis and later Capelli, Director of the Botanical Gardens of Valentino.

Moris began exploring the island in 1823, in the company of Alberto Ferrero della Marmora and the General Superintendent Greyffier, a Botany enthusiast. Moris gives a summary of these excursions in a letter he sent to Prof. Capelli as early as 15th June of the same year (Mussa 1911).

By the beginning of 1823, Moris already matured his project to study the Sardinian Flora and in 1824 the Government (in a decree by King Carlo Felice), undoubtedly thanks to intervention of Capelli, granted him leave ("for the time necessary, from the Clinical School, to carry out the Flora of Sardinia"). Perhaps because of his commission, Moris mistakenly affirms he began his expeditions in 1824 ("itineraria per sardoas provincias ingressus sum") in his preface to "Flora sardoa" (1837). As can be read in a letter he sent to Capelli dated 16th May, he visited the most unhealthy areas of the island that year, perhaps in company of the Swiss Philippe Thomas who was residing in Cagliari at the time.

The support of Count Alberto Ferrero della Marmora was fundamental for Moris's excursions. A refugee in the island after the events of 1821, the Count was carrying out archaeological, geological, palaeontological and cartographical explorations that he subsequently published in "Voyage en Sardaigne" (1826) and "Itinéraire de l'île de Sardaigne" (1857 in Paris and 1860 in Turin). In particular, he often refers to his friendship with Moris in his "Voyage" and he gives a report of the plants Moris found in various places on the island.

In 1825, Giovan Battista Bertero was sent to Sardinia to collaborate with Moris and by March the two had already begun their collections. On 17th May they set off with Della

Marmora for Sulcis and Iglesias, returning to Cagliari on 8th June. Towards the middle of the month however, Bertero, who it seems did not agree with the Sardinian climate (Mattiolo 1929), left to return to Piedmont. Moris began his excursions again with Della Marmora, this time in the direction of Ogliastra, Fonni and Gennargentu.

After the expeditions of that year, Moris found himself in difficulty regards organising the large amount of material they had acquired, in spite of the help of Philippe Thomas. Consequently for future years the Government granted him the collaboration of Domenico Lisa, gardener from the Turin Botanical Gardens.

In the meantime Badarò (1824) and Viviani (1824, 1825) had already published some new plants for Sardinia. The former, Director of the Saltworks at Porto Torres, collected *Polygonum maritimum* Pers., *Centaurea horrida* Bad., *Senecio Badaroi* Moretti and *Statice acutifolia* Reichenb in northern Sardinia. The latter availed himself of the collections made by Serafino, and ex student of his and a pharmacist in Boniface, from Corsica but also from Tavolara and some localities of Gallura (Limbara, Tempio, Casteldoria etc.). Soleirol too had assembled some fleeting collections from the northern coasts of the Island. For his account, P. Thomas later sent samples to his brother Emanuel Thomas in Switzerland, who sold them all over Europe.

In 1826, Franz August Mueller arrived in Sardinia, appointed by the “Unio-Itineraria” Society (Rabenhorst) to collect the plants of the Island. He travelled across central-southern Sardinia and reached as far as the Gennargentu. Moris met him in Cagliari and later described *Linum muelleri* (1828) and *Linaria muelleri* (1857) from the material Mueller gave him. The plants Mueller collected from 1826-1827 quickly found their place in many European herbaria and in 1829, thanks to Hooker, the above-mentioned *Linaria muelleri* already appeared in table 2941 of the Bot. Magaz.: 56, sub *L. hepaticifolia* Steud. and was subsequently described as var. *pumila* of *Linaria pilosa* by Chavannes (1833).

Circulation of these insular findings convinced Moris that he should anticipate the results of the studies he had conducted so far on the Island. Thus in April 1827, Moris published the first number of “Stirpium sardoarum elenchus” simultaneously in Cagliari and Turin. It contained descriptions of 1246 vascular species as well as diagnosis of 26 new species and was followed in June by an “Addenda”. On 18th December, the second number was published in Cagliari, containing a supplementary list of 157 species and diagnosis of 17 new species.

A letter from Lisa, dated Tempio 23.5.1828, recounts that Moris was ill at Avigliana in Piedmont, where he had returned to complete his studies on Sardinian Flora at Turin. The same year in Turin, Moris published an “Appendix” to his “Stirpium” containing the description of 4 new species.

In January, 1829, still in Turin, the third number of “Stirpium” was published, hailed with enthusiastic praise by the “Giornale di Cagliari” (Cagliari News) (Satta Branca 1969). It gives 76 vascular species and a rich list of cryptogams.

The publications of “Stirpium” constituted the first important inventory of Sardinian Flora. The numerous floristic discoveries that Moris described invited an analytical review (1829) by one of the greatest Botanists of the time: Antonio Bertoloni. Thus began the “Morisian” period in the history of the floristic exploration of Sardinia, marked by his numerous contributions (1831, 1833, 1835, 1839, 1841, 1845, 1847, 1852, 1854, 1857, 1861) and the publication of the first three volumes of “Flora sardoa” (1837, 1840-43, 1858-59).

After the publication of “Stirpium”, Jean Louis Bonjean travelled over southern Sardinia in 1829. Round about that time, August Huguenin visited the same area. The orchidologist Joseph Barla, who was in Cagliari in 1841, should also be associated with these collectors, together with Jean Pierre Montagne.

In 1833, A. Bellenghi published a review on the natural history of Sardinia in which he gave a extensive list of wild and cultivated plants, but there was nothing substantially new compared with the lists compiled by Moris.

It does not appear that Moris returned to Sardinia after he was appointed as Director of the Botanical Gardens of Valentino. The floristic exploration of the island continued however with the work of his collaborators (Lisa and Masala).

The contribution Moris gave was fundamental to the knowledge of Sardinian Flora, for the substance of his collections as well as the extent of the area he explored (fig. 1), the new species described (about a hundred, although not all priority species) and the compilation of the first proper floristic inventory of the island: “Stirpium” lists 1482 species, of which 330 Monocotyledons, and the 3 volumes of “Flora sardoa” describing 1141 species. The publication of the first volume was reviewed by Cesati (1838), the first two by De Notaris (1845).

Many authors of Italian National Flora consulted Moris’s work: Bertoloni (mentioned above), F. Parlatore, Cesati-Passerini-Gibelli and Arcangeli. Moris had corresponded with Bertoloni from the onset of his studies and sent him specimens of Sardinia flora. Moris was a great friend of Parlatore until his death in 1869. Many specimens of the Sardinian Flora that Moris sent to Florence helped to construct the National Herbarium; Parlatore even described some of these specimens as new species (*Romulea requienii*, *Poa balbisii*, *Festuca morisiana*, *Antinoria insularis*, *Asphodelus morisianus*, *Luzula italica*). Finally, Cesati (1882) underlined the importance and accuracy of his work.

Publication of the three volumes of “Flora sardoa” (1837-1859), a work that Moris never managed to complete because of too many public engagements, stimulated the interest of botanists for the plants of the Island. In 1858, Georges Schweinfurth crossed the island from north to south, but the results of his excursions were not published until 1884 in the Compendium drawn up by Barbey. In the second half of the century, alongside the work of numerous botanists from several countries, the contributions of researchers responsible for the University Institutes at Cagliari (Patrizio Gennari) and Sassari (Luigi Macchiati) should also be considered.

The former distinguished himself for his taxonomical contributions during the thirty year period 1860-1890. Gennari explored various areas of Sardinia and wrote several local floras, but his most important contribution was the booklet “Specie e varietà più rimarchevoli e nuove da aggiungere alla Flora sarda” (New and the most remarkable species and varieties to be added to the Sardinian Flora”, published in Cagliari in 1866). Although the latter was mainly interested in cryptogams, he also published several floristic contributions, particularly on the Orchidaceae of the island,

In 1863, Paul Ascherson came to the Island in the company of Otto Reinhardt. The following years, when he published the results of his studies, Ascherson was credited with promoting critical analysis of the Sardinian flora within the context of European Flora. Of significant importance was the revision of Barbey’s Compendium (IV Supplément) in 1885.

Moris’s work introduced the singularity of the Sardinian Flora, its numerous endemisms

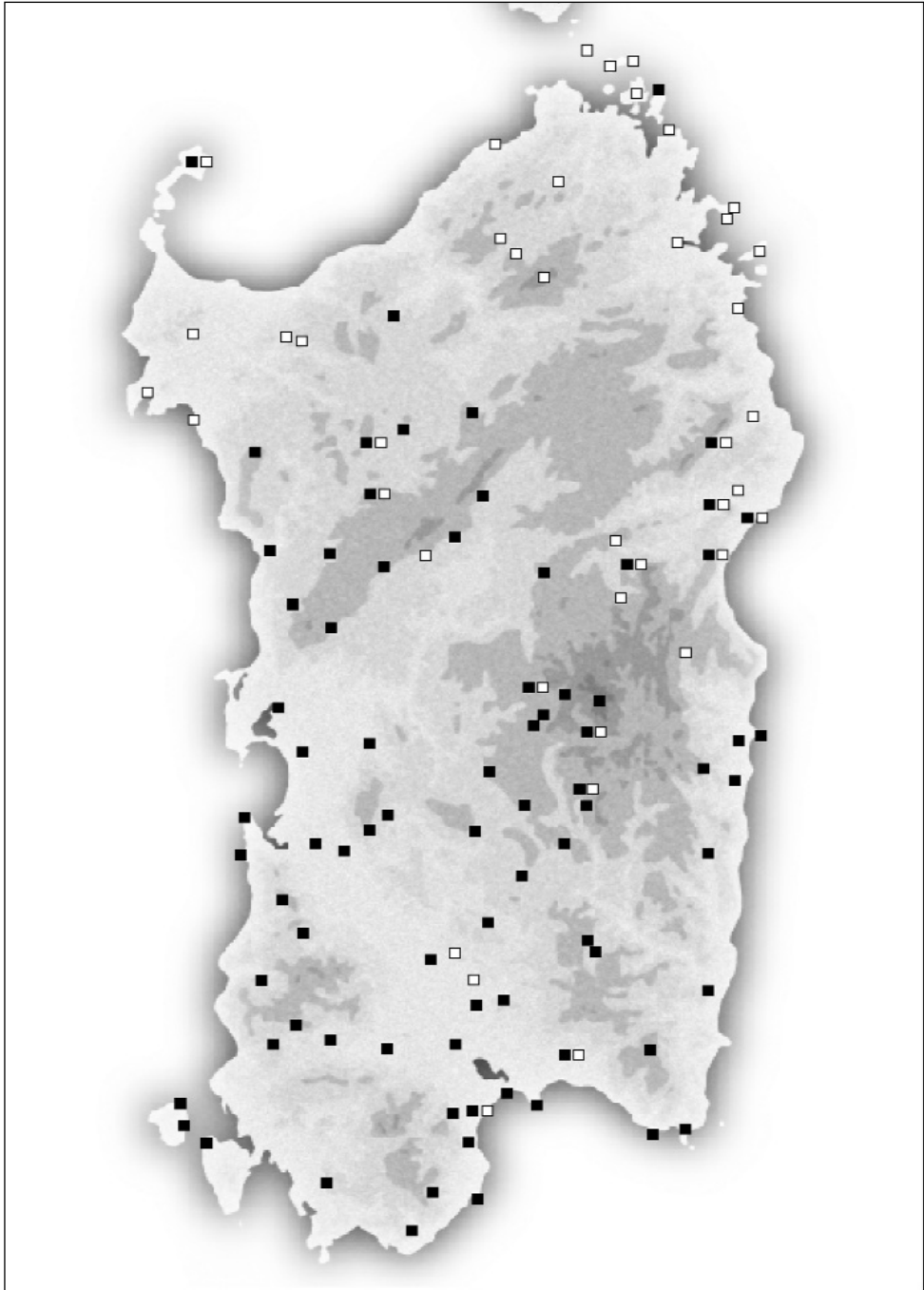


Fig. 1. Herborization sites of "Flora sardoa" by Moris. Moris explorations, 1823 - 1827 (black squares), Lisa explorations, 1828 - 1852 (white squares).

and significant number of rarities to the world of botany, arousing the interests of researchers and collectors of the time. Thus in the second half of the XIX century the island saw the continual arrival and expeditions of more or less famous individuals.

In chronological order we should mention: Nicola Pedicino (in 1864), M. Marcucci (1866, 1867, 1872), Ludovico Caldesi (1868), Adolfo Targioni Tozzetti (1869), Baron of Maltzan (1869), Stephen Sommier (1872), R. Gestro (1872), Antonio Biondi (1873-1875 e 1878-1880), Poggi (1876), Eliseo Reverchon (1881-1882), Carlo Siemoni (1882), Michele De Sardagna (1883) and Carlo Marchesetti (1883).

Many of the findings of these expeditions, but not all, were included in the Compendium compiled by Barbey (1884—1885). The work is an important reference point for students of Sardinian Flora. Indeed, it is based on the cataloguing of material in the Moris Herbarium in Turin and further specimens subsequently added to the inventory of “Flora sardoa”, including reports of the Italian Floras published to that date. Barbey lists a total of 1692 vascular species, but important changes had already been introduced to the supplements and addenda of the work. This work marks the close of the first phase of exploration of Sardinian Flora.

Publication of Barbey’s Compendium and subsequently “Flora Analitica d’Italia” by Fiori and Paoletti (1896-1908) did not stop the floristic exploration of Sardinia, since many visitors still came to the island at the end of the XIX and the beginning of the XX century.

Among these were the geologist Lovisato (who came for several years from 1881 and 1900), Forsyth-Major (1884 and 1885), Pirota (1887, 1889, 1902), Cansella (1887, 1889, 1890), Andrea Fiori (1887, 1890), Marcialis (1889) who visited the Cagliari district, Gavioli Oreste (1890), Vaccari Antonio (1890-1910) who visited the islands of the La Maddalena archipelago, Gestro again (1895, 1903), Nicotra Leopoldo, Professor of Botany and Curator of the Sassari Botanical Gardens, who visited the districts of Sassari and Cagliari (1895, 1896, 1897, 1898, 1899), Nicotra and Andreas (1899) and Cavara Fridiano (1900).

However, of all the “nineteenth century” collectors, it was the Florentine Ugolino Martelli who most distinguished himself for the depth of his reconnaissance and study of the material. He covered Sardinia in the years 1894 to 1899 inclusive. His contributions make up much of the wealth of the collections in the Florentine Herbarium that are so important to the study of the Sardinian Flora.

Martelli contributed to the Sardinian Flora with the discovery of some species such as *Ribes sardoum*, *Centaurea ferulacea*, *Gladiolus vexillare*, *Narcissus sardous* and *Crocus imperati* var. *sardoa*. He had intended to complete Moris’s Sardinian Flora and see to the format. In fact he published three numbers on the Monocotyledons (1896, 1901, 1904) but he never managed to finish the work as he had wished.

The Catalogue compiled by Barbey and the work by Martelli mark the close of the period of discovery of the Sardinian Flora. Nevertheless, not all the island had been explored by the end of the XIX century. Substantially, only Moris and partly Martelli had systematically programmed their collections over the territory with the scope of achieving a true floristic inventory.

In the second half of the XX century the number of known species for the island further increased after exploration of previously neglected areas. A number of local flora were

written and taxonomical units began to be interpreted on not just a morphological level. However, the importance of a “historical” appreciation of past explorations with respect to more recent expeditions is clear, especially considering the anthropological changes the territory has experienced that have inevitably affected the island’s flora. One just has to think of the floristic impoverishment caused by reclamation of the wetlands and marshes and the recent devastation of the island’s dunal systems.

Appendix

Information on the collectors and contributors to the Sardinian Flora and their itineraries

This contribution is mainly drawn from works published by the first researchers of Sardinian Flora. Much information however also came from non-botanical journals and books of the time. Some important information about Moris was found in published and unpublished correspondence. In reconstructing the chronology of the collection itineraries the various explorers followed on the Island, we relied especially on the dates and collecting sites recorded on the labels of the Herbaria material consulted.

ALLIONI Carlo (1728-1804)

Botanist from Piedmont, contemporary and correspondent of Linneus. He did not collect plants in Sardinia himself, but studied the plants that Piazza (see below) sent him. His contribution (1759) is the first real study on Sardinian Flora (Arrigoni 1986, Allionia: 83-85).

Exs.: TO

ASCHERSON Paul Friedrich August (1834-1913)

Professor of Botany at Berlin University. He visited Sardinia with O. Reinhardt in 1863 (see Bull. Soc. Bot. Fr. (1864), 11: 329-332 and Oesterr. Bot. Zeitschr. (1865) 35: 308-312, 350-355). Reinhardt was particularly interested in Bryophytes.

Their itinerary on the island was as follows:

May: Cagliari (amphitheatre), surroundings of Pula, Teulada (together with Gennari).

June: - Iglesias, Monteponi Mines, Gennamari and Ingurtosu Mines, Fluminimaggiore, Villacidro, Cagliari, Capo S. Elia, Isili, Laconi (Sarcidano), Aritzo, M. Gennargentu, Fonni.

July - Nuoro, M. d’Olivena, Orosei, Is. Maddalena and Caprera.

Exs.: His collections in B were partly destroyed during the war. However material for his Flora Sardinian are deposited in FI.

BADARO’ Gianbattista di Laigueglia in Liguria (1793-1831)

Director of the Porto Torres Saltworks. He collected specimens for his Tutor Antonio Bertoloni during two excursions to northern Sardinia. In 1824 (Giorn. Fisica, Pavia, 5), he

published some observations on the plants of Sardinia sent to Sig. Giuseppe Moretti in Genoa. Reichenbach (1825) described *Statice acutifolia* from his specimens.

BARLA Joseph H.G.B. (1817-1896)

French mycologist and orchidologist, Director of the Natural History Museum of Nice. He was resident at Cagliari in 1841 and collected specimens from the nearby Capo. S. Elia.

BELLENGHI Albertino

Bishop of Nicosia. He went to Sardinia in 1828, having been sent there by Leone XII on the request of Carlo Felice. A naturalistic summary of his journey was published in *Giorn. Arcad.*, 57: 60-109.

BELLISAI (s.n.)

1861 - Teulada Mountains
Monti di Teulada.

Exs.: TO

BERTOLONI Antonio (1775- 1869)

Professor of Botany at the University of Bologna, author of the first “*Flora italica*” (1833-1854). In compiling his *Flora*, he used much of the knowledge on Sardinian *Flora* that had been contributed during the first half of the XIX century. In 1843 he described *Heliantemum morisianum* from the material collected by Moris.

BERTERO Carlo Giuseppe (1789 - 1831)

Botanist from Piedmont, explorer of central-southern America (1816-1821). He accompanied Moris for three months to collect the plants of Sardinia on the instructions of the Director of the Botanical Institute of Turin (see his itinerary with Moris). According to Colla (1839) “particular reasons, excessive to mention, determined that Bertero should leave Sardinia”. Moris (1837) and Mattiolo (1929) specified that he returned to Turin for health reasons.

Exs.: TO, FI-W.

BINNA L.

Botanist from Sassari. He published some floristic contributions relating to Sassari, in actual fact insufficiently reliable (see Arrigoni, 1981).

BIONDI Antonio. from Montajone (Castelfalfi, 1848- Castelfalfi 1929)

He was voluntary assistant to F. Parlatore from 1870 (Pampanini, 1936, *Nuovo Giorn. Bot. Ital.*, n.s., 43: 197-206). He collected specimens for several years, especially in central-southern Sardinia.

1873 - Iglesias, M. Marganai

1874 - Montagna della Duchessa (Iglesias), surroundings of Sassari.

1875 - Iglesias, M. San Giovanni (Iglesias), in territory of Sassari.

1878 - Capo S. Elia, Porto Paglia near Iglesias.

1879 - Sarcidano, Aritzo and M. Cresia, Taquisara, Osini, S. Lussurgiu, Gennargentu, Monte Santo di Pula, Zinnigas, Foresta Settefratelli, S. Gregorio, Cagliari.

1880 - M. Marganai.

Exs.: FI, partly in RO. Part of the material was sent to W. Barbey who used it in compiling his “Compendium”.

BONJEAN Jean Louis (1780-1846)

From Herbarium material, we know he collected at Uras in Sardinia in 1829, and almost certainly elsewhere too.

Exs.: FI, FI-W.

BORNEMANN Johann Georg di Eisenach (1831-1896)

Proprietor of the Ingurtosu and Gennamari Mines the Iglesias district, geologist and palaeobotanist. From 1857, during his stay in Sardinia, he explored almost all the island, especially the Iglesias district, together with his sons Louis-Georges, Victor and Felix. The plants he collected were studied by Ascherson (see above). Two hybrids or orchids are dedicated to him: *Orchis* × *bornemanniae* Aschers. and *O. bornemanni* Aschers. (*O. papilionacea* × *O. longicornu*).

Exs.: JE, B.

BRAUN Alexander C. H. (1805-1877)

German botanist, Professor at Karlsruhe, Freiburg, Giessen and Berlin. He studied *Isoetes* and *Characeae* from Sardinia collected by Ascherson.

Exs.: B, mostly destroyed.

CALDESI Lodovico (1822-1884)

Botanist and politician from Faenza. He built up his herbarium collections from the surroundings of Cagliari in 1868.

Exs.: Material is deposited in FI, PI, RO.

CANEPA (s.n.)

1865 - Fangario (Cagliari)

Exs.: PAD.

CANSELLA (s.n.)

1887 – Cagliari, 1889 and 1890, Cuglieri.

Exs.: FI

CARUEL Teodoro (1830-1898)

Botanist at Milan, Pisa and Florence where he held the chair of Professor of Botany and Prefect of the Botanical Gardens. He continued the Italian Flora by F. Parlatore (vol. 6-10, 1884-1894). He visited Sardinia in November, 1883 to study the causes of phylloxera at Sassari.

Exs.: Some of the material he collected on this occasion are deposited in FI and PI.

DE NOTARIS Giuseppe (Milan, 1805-1877, Rome)

Botanist of cryptogams, in particular bryologist and lichenologist. He was a student of Moris and his assistant in Turin (1834) before holding the chair at the University of Genoa (1839). After Italy was united, he held the chair of Botany at the University of Rome. He visited Sardinia in 1835 crossing the island from North to South along the main roads, collecting Cryptogams and Phanerogams. He was at Tempio, Milis, Cabras, Oristano, Villacidro, Iglesias, Is. di S. Antioco, Pula, Cagliari and district.

Exs.: GE, TO, RO, BOLO.

DELLA MARMORA Alberto (1785-1863)

Explorer and naturalist, author of fundamental works on archaeology, geology, topography and the geographical and ethnological aspects of Sardinia. After the uprisings in Turin in 1821, he was forced to resign from the Piedmont Army and flee to Sardinia. His most important works are “Voyage en Sardaigne” (1826) and “Itinéraire de l’île de Sardaigne pour faire suite au Voyage en cette contrée” (1857), published in Paris.

Della Marmora was not a botanist, but he shared many of his explorations in the field with Moris, with whom he was a great friend and whom he admired. In his works he often mentions the company of Moris and sometimes lists the plants he found along the Sardinian itineraries.

Moris’s collections from the centre of Sardinia, especially those of the earlier years, would probably not have been possible without the support of this great scholar and explorer who showed the world the island and the traditions of its people.

FIORI Andrea

1887 - Porto Torres, Olbia, Oschiri, Tempio

1890 - Gadoni, Iglesias.

Exs.: FI.

FORSYTH-MAJOR C. J. (1843-1923)

During his studies on the “Tirrenide” he explored some parts of Sardinia where he collected many botanical specimens. In 1884 he visited Aritzo, Laconi, Miniera di Correboi, M. S. Giovanni (Iglesias), Capo Caccia, Rocca Sa Bagassa (Nurra), M. d’Oliena, Monte Tolui, Capo Figari, Gennargentu. The following year he collected at Tavolara. Arcangeli (1886) described *Campanula rotundifolia* L. var. *forsythii* in Atti Soc. Tosc. Sci. Nat. Pisa, proc. verb., 5: 138 (*Campanula forsythii* (Arcangeli) Podlech) from his material.

Exs. : FI.

GABELLA (s.n.)

1889 - Monti di Gallura

Exs.: SASSA.

GANDOGGER Michel (1850-1926)

Author of an unpublished manuscript (1917) on a catalogue of plants collected in Sardinia from 1890 to 1893.

Exs.: LY, FI

GAVIOLI Orazio (Potenza 1871-1844, Potenza)

Graduated in Medicine at Naples (see Negri, 1947, Nuovo Giorn. Bot. Ital., n.s., 56: 1-9).
1890 - Iglesias

Exs.: FI.

GENNARI Patrizio (1820-1897)

Professor of Botany at the University of Cagliari and author of Floras and various contributions on Sardinia. He collected in various parts of the island.

1856 - Fangario

1858 - Capo S. Elia, Carbonara

1859 - Gennargentu, Monteponi

1860 - Gennargentu, Aritzo, Capo S. Elia

1861 - Is. Maddalena, Domusnovas, Iglesias, Fluminimaggiore, Altopiano di Macomer,
Monti di Aritzo, Caprera, Monte Santo di Pula.

1862 - Barbusi, surroundings of Oliena.

1864 - Settefratelli, Portoscuso.

1865 - Buggerru

1866 - Marganai, Desulo

1867 - Caprera

1869 - Woods between Aritzo and Desulo, Gennamari.

Exs.: The material he collected is deposited in many herbaria (e.g. TO, CAG, FI, GE, CN,

PC, W). The collections we know of were made between 1856-1869, but his published contributions date from 1861 to 1890.

GESTRO R.

In 1872 and 1895 he explored Sarrabus. A summary of his expedition to Sardinia in 1903 was published in 1904 (Bull. Soc. Geogr. Ital., 5: 313-351).

1872 - with Marcucci and Sommier to Sarrabus.

1895 - S. Vito, along the R. Flumendosa,

1903 - Asfossado, Tempio and M. Limbara.

Exs.: FI.

GLUCK Cristian M.H. (1868-1940)

German Biologist from Heidelberg.

Exs.: B, DUKE, NY

HUET du PAVILLON Alfred (1829-1907)

According to Briquet (1914, Ann. Conserv. Jard. Bot. Genève, 17: 310-325) he visited Sardinia, where he was based at Cagliari, from March to the beginning of June in 1854, collecting in the surroundings of Cagliari (Capo S. Elia, Bonaria, Quartu, Elmas, La Scaffa, S. Michele) and Campidano (Villacidro, Sanluri), reaching the eastern coast as far as Tortoli. Barbey (1884) mentions a specimen in the Boissier Herbarium (G) that he collected at S. Michele, near Cagliari in 1854. Duplicates of the collections were distributed under the title "Plantes de Sardaigne 1854". He had a brother (Eduard, 1829-1907), also a botanist, who helped build up a significant herbarium of European Flora.

Exs.: G

HUGUENIN Auguste (1780-1860)

Mentioned by Steinberg (1977) on account of the material in the Webb Herbarium (FI-W).

LISA Domenico (Pecetto, Torino, (1799? o 1801-1867).

Chief Gardener at the Botanical Gardens of Turin. He was sent to Sardinia by Capelli to assist Moris in the years 1826 and 1827. He returned to the island after he was summoned by Moris in the years 1828, 1837, 1840, 1852, contributing much to the completion of the Moris Herbarium.

Itineraries:

1828 - Porto Torres, Alghero, Nurra, Porto Conte, Asinara, Sassari (8.V), Is. Maddalena, Vignola, Tempio (10.V), Luogosanto, Limbara, Olbia, Tavolara, M. Albo di Siniscola, Orosei, Galtelli, Nuoro, M. d'Oliena, Domus de Medusa a Samugheo, Tonara, Monti di Sadali and Maracalagonis, Serrenti (1836?), - Tanca di Nizza, Tonneri d'Irgini.

- 1837 - Intermediary islands, La Maddalena, Is. Budelli. Is. Barrettini.
 1840 - Porto Torres, Sassari, Scala di Giocca, Torralba, Tempio, Aggius, Limbara, La Maddalena (3.V), Is. dei Cappuccini, Olbia (11.V), Capo Figari, Figarolo, Tavolara, S. Teodoro, Siniscola, M. Albo, Orosei, Galtelli, Nuoro (31.V), M. D'Oliena, Orgosolo, Urzulei, Nuoro, Aggius, Limbara, Tempio (18.VI), Torralba, Sassari, Porto Torres.
 1852 - Bonorva, Silanus, Nuoro, Galtelli, Onifai, Orosei, meadow land between Orosei and Dorgali, Dorgali Mountains (24.VI), Flumineddu di Dorgali, M. d'Oliena, Orgosolo, M. Novo S. Giovanni (Orgosolo), Urzulei, Dorgali, Nuraminis Mountains.

Exs.: TO, FI, SASSA, BOLO.

LOVISATO D.

Professor of Geology at the University of Sassari. During his expeditions to the mountains of Sardinia he made botanical collections and sent material to Prof. Caruel in Florence. He gave some specimens from his Gennargentu collection (identified by Caruel) to Prof. M. Magnus (duplicated in FI).

1881 - Cima Paolina

1886 - Gennargentu

1893 - M. Serpeddi

1900 - Gennargentu.

Exs.: FI, RO, CAG.

MACCHIATI Luigi (1852-1921)

Professor at the University of Sassari. He was essentially a cryptogam botanist, but also published several contributions to the Sardinian Flora.

Exs.: PAD, SASSA, FI.

MAGNUS Paul W. (1844-1914)

Professor of Botany at Berlin University. In 1884 (April - May) he travelled across Sardinia collecting mainly cryptogams. His itinerary, that began at the Golfo Aranci, included the following localities: Chilivani, Osilo, Nulvi, Sassari, Alghero, Macomer, Oristano, Milis, Tharros, Cagliari, Iglesias, Ingurto, Montevecchio, Torralba, Ardara, Golfo Aranci.

He published *Marrubium* × *aschersonii* Magnus (1884) Ber. Deutsch. Bot. Ges., 2: 349 (*M. vulgare* × *M. alysson*).

Exs.: HGB, B?.

MARCHESETTI Carlo (1850-1926)

Botanist from Trieste. Director of the Botanical Gardens of Trieste from 1904.

1883 - Correboi Mine.

Exs.: FI.

MARCIALIS Efisio (x.- 1889)

Botanist from Cagliari. In 1889 he published a short Flora on the wild flowers of the Cagliari district.

Exs.: FI, CAG.

MARCUCCI M. da Bibbiena (1837-1890)

According to Barbey (1884), who at first called him Emilio as appears in Saccardo (1909), his first series of collections date to 1866, mostly cryptogams that he sent to Rabenhorst (Unio-Itineraria) and Levier. That year he visited Limbara among other places. In 1867, he visited central Sardinia and in particular Tacco di Seui.

In 1872 (with Berni as assistant), he left Cagliari with Sommier and Gestro for Sarrabus, S. Vito, Lanusei, Correboi, Aritzo, Isili, Iglesias, Oristano. He also visited Sarcidano, Monte Novo S. Giovanni and Gennargentu.

Exs.: Material is deposited FI.

MARTELLI Ugolino (1860-1934)

Florentine of noble origins and independent botanist at Pisa and Florence (see Negri (1935) *Nuovo Giorn. Bot. Ital.*, 42(1): 1-16). He conducted many floristic and taxonomical studies in exotic countries. He carried out several expeditions and collections in Sardinia with the scope of completing Moris's Sardinian Flora.

1894 - Sassari at S. Anatolia, Nurra, Isili, Laconi, Tonara, Sarcidano, Ulassai, Girgini, Bruncu Spina, Su Sciusciu, Donori, Musei, Fonni, Ovile Mighela e P. Paolina (Gennargentu), M. Scoine (Baunei), Belvi a Pizz 'e Pranu, M. d'Oliena, Grotta S. Giovanni (Domusnovas), Marganai, S. Antioco, Portovesme, Capo Spartiventu, Malfitano, Is. S. Pietro, Is. Piana, Is. Toro, Elmas, S. Gregorio, Capo S. Elia, Is. of Cavoli

1895 - Osilo, Oristano, Capo S. Marco, Limbara, M. Ortobene, M. d'Oliena, Serra Bitzicuri (Baunei), M. Bardia, Dorgali Mountains, Osalla, Capo Caccia, Monte Forte (Nurra), Scala di Giocca, Sassari.

1896 - Porto Vesme, Gonnese, S. Antioco, P. Paolina, Toneri di Belvi, Toneri di Girgini.

1897 - P. Paolina, P. Florisa and Perda Unturgius (Gennargentu), Girgini

1898 - Fonni, Correboi, Desulo, Gennargentu, P. Florisa, M. S. Vittoria, M. Remule di Lula, Tacco di Sadali, Orune, Ortuabis, Uta.

1899 - Tavolara, Monti di Alà dei sardi, M. d'Oliena, Baunei, M. Limbara, M. Forte (Nurra), Monte Remule and Monte Piccinu (Lula), Orune

Exs.: FI, SASSA, etc.

MASALA Simone di Fluminimaggiore

He collected about 1700 specimens of plants from Sarcidano and Cagliari and surroundings, from 1862 to 1869, but particularly during 1864 and 1865. His contributions, that followed however publication of "Flora sardoa", considerably enriched the Moris Herbarium in Turin.

1862 - Tra Villanovatulo and Esterzili.

1863 – Sarcidano.

1864 - Sarcidano, Cagliari alla Scaffa.

1865 - Sarcidano, Cagliari at S. Gilla, Scaffa, and Bonaria, Is Mirrionis, La Plaja, Saline di S. Pietro, S. Lorenzo.

Exs.: FI, TO.

MONTAGNE Jean Pierre F.C. (1784-1866)

French botanist specialised in cryptogams, great explorer and collector in various parts of the world. Specimens are deposited in FI-W (Soleirol herb.). See Steiberg (1977).

MORIS Giuseppe Giacinto (Orbassano, 1796- 1869, Torino)

Moris resided in Sardinia from 1822 to 1828 as Professor of Clinical Medicine at the University of Cagliari. Carlo Felice issued a decree on 15.IX.1829 summoning him as Deputy Director of the Botanical Gardens of Valentino. From 9.X.1829 he was appointed Professor of Botany at Turin in place of Capelli. After two years (23.07.1831) he was confirmed as Director of the Botanical Gardens and nominated Professor of Medical Subjects. Itineraries:

Appointed by the Piedmont Government in 1825 to compile a Sardinian Flora, he travelled over much of the territory of the island collecting a vast number of specimens. After 1827, Domenico Lisa, Head Gardener at the Turin Botanical Gardens, continued the collections for him (1828, 1837, 1840, 1852), followed by his collaborator De Notaris (1835). His herbarium (TO) was increased much later after publication of the volumes of “Flora sardoa” with collections the Masal made (1862-1869) prevalently from Sarcidano and Cagliaritano.

In some of his early expeditions, he was assisted by local dignitaries linked to the Reale Società Agraria Economica di Cagliari (Royal Society for Agrarian Economy of Cagliari), such as Rector Murcas, Headmaster of the Collegio dei Nobili, the Swiss F. Thomas and General Superintendent Greyffier. However, during most of his expeditions, Moris was accompanied by Alberto Ferrero della Marmora, a great scholar of historical, natural and cultural memoirs of the island, with whom he became great friends, with a friendship characterised by mutual esteem.

After his official appointment by King Carlo Felice to compile the Sardinian Flora, he was dispensed of many of his medical commitments and benefited from the assistance of personnel sent by the Botanical Gardens of Turin: Bertero in 1825 and Lisa from 1826.

Year 1823

22.V. - He left for Arizzo and Gennargentu in company of A. Ferrero Della Marmora and Superintendent Col. Greyffié (or Greffier), following the itinerary: Cagliari, Monastir, Ussana, Mandas, Sarcidano, Arizzo and Gennargentu; Moris himself confirms the itinerary in a letter dated 15.VI.1823 addressed to Capelli in Turin (MUSSA, 1911, Malpighia, 24: 1-12).

3.VI. - From Cagliari to Domusnovas and Sulcis with Della Marmora, returning on 13.VI (Spano, 1864).

Year 1824

From Mussa (1911) as he wrote in a letter to Capelli dated 16.V.1824, Moris recounts that he crossed the most unhealthy areas of the Island, but the material must have been lost because there are no traces of this collection in the herbaria.

Year 1825

17.V. - From Cagliari in company of Della Marmora and Bertero for Sulcis and Iglesias, returning on 8.VI. Left again on 15th of the month for Ogliastro, Fonni and Gennargentu, Aritzo. Cagliari, Pula-S. Eufisio, Domusdemaria. Return to Cagliari on 3.VII.

Year 1826

11.V. - From Cagliari in company of Della Marmora and the gardener Lisa for Carloforte, Monte Arcuentu, Capo Frasca (31.V), Uras, Morgongiori, Flumentorgiu, Laconi, Gennargentu, Aritzo (21-26.VI), Tonara, Desulo, Gennargentu (8-11.VII), Cagliari (19.VII).

Other localities: Cagliari, La Scaffa, Capo S. Elia, Monte Santo di Pula, Is. S. Pietro, La Tonnara, Is. S. Antioco, Calasetta, Iglesias, Domusnovas, Siliqua, Fluminimaggiore, Flumentorgiu, Capo Boi at Carbonara, Monte S. Giorgio di Muravera, Ogliastro, Bari, La Maddalena, Asinara, Monastir, Morgongiori, Esterzili, Monte S. Vittoria, Aritzo, Tonneri di Irgini, Gennargentu.

Year 1827

23.IV. From Cagliari in company of Della Marmora and Lisa for Arbus, Ales, La Giarra, Santu Lussurgiu, Planargia, Bosa (10.V), Sindia (16.V), Bonorva, Monte Santo (26.V), Ozieri, M. Rasu (1.VI). From here, Moris, after the departure of Della Marmora, continued to the North of Sardinia with Lisa, then returned to Cagliari.

Other localities: M. Urpino, Capo S. Elia, Silius, Tonneri d'Irgini, Monti di Dorgali, Monti di Galtelli, Orosei, M. Albo di Siniscola, Oliena, M. d'Oliena, Sulcis, Carloforte, M. Linas, Bono, Terralba, between Terralba and Oristano, Ariola (Riola), Cartiera di Cuglieri, Mores, Orani, Torralba, Ozieri, Siamanna, Tanca di Nizza.

Year 1828

Cagliari, S. Elia, Sadali and Maracologonis, Iglesias, M. S. Giovanni di Iglesias, Pula, Orri.

The Spring-Summer collections of 1828 are all attributable to Lisa, since from a letter he sent to Moris, dated Tempio 23.V.1828, Moris appears to be ill at Avigliana in Piedmont. Probably Moris only made the end of winter collections in the Cagliari district and then moved to Turin. That Moris was in Turin in 1828 seems to be confirmed by the fact that the Appendix for the first two numbers of "Stirpium sard. elench." were published in that city, whilst the journals themselves were published in Cagliari.

The collections of Moris, mostly without reference to the collector himself, often carry generic indications of the locality but for the years 1923-1925 the dates are almost always missing. It is therefore difficult to reconstruct the itineraries.

Loci sine die: Cagliari at S. Michele, Capo S. Elia, Pula, Capoterra, Siliqua, Decimomannu, Iglesias, Marganai, M. Linas, Is. S. Antioco, Morgongiori, Samassi, Uras, Ussana, Guasila, Mandas, Tacco di Nurri, Sarcidano, Belvì, Toneri di Belvì, Desulo, Toneri di Irgini, Aritzo, Funtana Cungiada, Gennargentu, Su Sciusciu, Fonni, Macomer, Silanus, Bolotana, Villanova Monteleone, Bosa, Orosei, Galtelli, Dorgali, Oliena, Muravera, Tertenia, Settefratelli, Carbonara, Pauli Gerrei, Ogliastro, Lanusei, Tortolì, Capo Bellavista, Sadali, Esterzili, Sulcis, Fluminimaggiore, M. Arcuentu, Oristano, Terralba, Santulussurgiu, Cuglieri, Is. Intermedie, Monte Nieddu (Bosa), Martis, Orosei, S. Teodoro,

Exs.: TO, FI (1830, 1842, FI-W), SASSA, G-DC, etc. For the material in FI-W see Steinberg (1977, *Webbia*, 32(1): 32). The Moris collections are deposited in his Herbarium and in the General Herbarium at the University of Turin (TO). Moris however sent several duplicates to Herbaria and personalities of the period: Bertoloni, De Candolle, Reuter, Cesati, etc.

An almost complete series of specimens is deposited in FI (H.C.I. e FI-W). Moris sent a first batch of specimens to Florence in 1842 (see Parlatore, 1845, *Cenni sull'Erbario Centrale Italiano*, *Giorn. Bot. Ital.*, 1(3): 1-9). A list of these plants, sent to Sign. Commendatore Antinori, is preserved in the *Miscell. Martelli* of the Botanical Library of Florence and comes from the Gennari Library that Martelli purchased.

Parlatore tells us that Moris sent at least two further sets of plants to Florence:

- 58 specimens on 3.VI.1844 relative to the second volumes of the Sardinian Flora (*Giorn. Bot. Ital.*, 1(2): 41);

- 53 specimens of rare plants from Piedmont and Sardinia on 30.XI.1847 (*Giorn. Bot. Ital.*, 2(3): 120-127).

Regarding the material in FI-W see Steinberg (1977, *Webbia*, 32(1): 32).

Another series of specimens belonging to the Moris collections is deposited in SASSA, where it was sent from Turin in an exchange with the RE Herbarium.

Exsiccata of Moris's collections sporadically occur in several European Herbaria (BOLO, RO, G-DC, etc.).

MUELLER Franz-August (1798-1871) (Born 29.XI.1799 at Lausigk (Saxony) according to F. Fleischer in *Barbey* (1885, *Fl. Sard. Comp.*: 250).

Pharmacist from Saxony, he was a professional collector and bryologist. He stayed in Sardinia from Spring 1826 until Autumn 1827 collecting plants for the "Unio-Itineraria" (Steudel et Hochstetter), especially in central-southern Sardinia in the territories of Cagliari and Iglesias, the islands of S. Pietro and S. Antioco, but also on Sarcidano reaching as far as Gennargentu. His material was divided among several European Herbaria. In 1829 he published an article on "Erstes Verzeichniss sardinischer Laubmoose". According to Satta Branca (1969) he collected as many as 20,000 specimens. He met Moris in Cagliari, with whom he corresponded. Moris dedicated *Linum muelleri* (1828) and *Linaria muelleri* (1857) to him as first collector.

1827 - Cagliari, Laconi.

Exs.: Materiali in DR, FI, FI-W, PAD, RO.

NICOTRA Leopoldo (1846-1940)

Professor of Botany and Curator of the Botanical Gardens at Sassari from 1892 to 1900, then at Cagliari from 1911 to 1914. Between 1895 and 1906 he wrote several contributions to the knowledge of the Sardinian Flora.

? - Tempio, Gonnosfanadiga
1897 - Sassari

1898 - Baddimanna (Sassari), Bonorva

1899 - Baddimanna (Sassari), Asinara, S. Anatolia (Sassari)

1909 - Baddimanna

1912 - Cagliari alla Plaja

Exs.: B, FI, RO, SASSA, SS, ecc.

NICOTRA L. & ANDREAS

1899 - Asinara

Exs.: FI, SASSA

PARLATORE Filippo (Palermo 1816- Firenze 1877)

Professor of Anatomy at the University of Palermo. In 1842 he was summoned to Florence by the Granduke of Tuscany, where he founded the Institute and Museum of Botany and became editor of the *Giornale Botanico Italiano* (1844). Author of an Italian Flora (the first 5 volumes from 1848 to 1875, subsequently continued by T. Caruel).

It does not appear that he ever visited Sardinia. However he was a great friend of Moris, from whom he often received specimens of Sardinian Flora for building up the Erbario Centrale Italico at the Botanical Institute of Florence.

Whilst he was editing "Flora Italica" he could thus study material from Sardinia, always mentioned in the text. He described several new species of Monocotyledons from the plants that Moris sent him: *Romulea requienii*, *Poa balbisii*, *Festuca morisiana*, *Luzula italica*.

PEDICINO Nicola Antonio (1839-1883).

Director of the Botanical Gardens Portici from 1872, later Professor of Botany and Director of the Botanical Gardens of Rome from 1877. In 1864 he collected specimens from Capo S. Elia and perhaps elsewhere.

Exs.: Materials deposited in FI and RO.

PIROTTA Pietro Romualdo (1853-1936)

Director of the Botanical Gardens of Modena from 1880 to 1883, subsequently Professor of Botany at the University of Rome and Director of the Botanical Gardens from 1888 to 1928. Biographical notes can be found in Negri (1938).

1887 - Is. S. Pietro.

1889 - Is. S. Pietro.

1902 - Cagliari Amphitheatre.

Exs.: RO, FI, SASSA, CAG

PITZORNO (s.n.)

1893 - Sassari

Exs.: SASSA

PLAZZA Michele Antonio (1720 at Villafranca d'Asti - 1791, at Cagliari)

Founder of the first Botanical Gardens of the University of Cagliari, of the University Library and first Surgical Clinic in Sardinia. He lived in Cagliari from 1748. He collected plants in southern Sardinia, from Cagliari, on Monte Settefratelli, in Gerrei, Siurgus Donigala, Perdas de Fogu, Ierzu (Arrigoni, 1986, *Allionia*: 27: 83-85). Part of his collections were sent to Allioni in Turin who wrote about them in his "Fasciculus stirpium Sardiniae in Diocesi Calaris lectarum" (1759). He probably intended to compile a catalogue on the Sardinian Flora. His notes, which Mattiolo managed to retrieve from his heirs, were interpreted and published by Terracciano (1914-1930).

Exs.: TO

POGGI (s.n.)

1876 - Iglesias, Miniera di S. Benedetto.

Exs.: FI.

REVERCHON Elisée (1835-1914)

French floristic expert and professional collector. During the years 1881 and 1882 he went on two collecting campaigns in Sardinia, especially in Gallura, distributing samples of as many as 899 species. Identification and indications of his collections are not always reliable. Barbey (1884) published the list under the responsibility of the collector.

1881 - S. Teresa Gallura

1882 - Tempio, Monti di Aggius, Asfossado, M. Limbara

Exs.: FI.

SARDAGNA (de) Michele di Trento

Collected herbarium specimens in Sardinia for 3 months (April - June) 1883. On the basis of the summaries of his expedition published in 1885 (*Nuovo Giorn. Bot. Ital.*, 17: 139), he was in Alghero, Olbia, Capo Ceraso, Cagliari, M. d'Oliena, Fonni, Gennargentu, Macomer. He also collected in Sassari, Monte Santo di Pula, Miniera S. Giovanni di Iglesias and Capo S. Elia.

Exs.: Material in FI. His exsiccata, over 500 species, were sold (*Oesterr. Bot. Zeitschr.*, 1884: 38). Some of the specimens he collected were anticipated in Barbey (1884, App. I).

SCHWEINFURTH Georg A. (1836-1925)

Schweinfurth was in Sardinia from 18.III to 17.IV 1858. His itinerary was as follows: Porto Torres, Sassari, Osilo, Sorso, Sassari, Torralba, Macomer, Oristano, Cabras, Torre Grande, Milis, Nuraxinieddu, Massama, Tramazza, Oristano, Uras, Sardara, Sanluri,

Furtei, Nuraminis, Serrenti, Cagliari, Orri, meeting with Prof. Gennari, Capo S. Elia, Cagliari, Domusnovas, Iglesias, Monteponi, Siliqua, Cagliari.

The results of his observations were published in Barbey (1884). He first reported *Astragalus massiliense* (sub *A. tragacantha*) in Sardinia at Torre d'Abba currente, near Porto Torres.

Exs.: B, TO.

SERAFINO Stefano di Bonifacio, in Corsica.

He collected plants on the islands between Corsica and Sardinia, at Tavolara and on the coasts of northern Sardinia. Many specimens of his collections were sent to Domenico Viviani who used them for his contributions to his Corsican and Sardinian Floras.

SIEMONI Giovanni Carlo (Pratovecchio 1838-1912)

Forestry Inspector and founder of the Agricultural Museum in Rome.
1882 - Cala Spinosa (S. Teresa Gallura), Traversa between Tempio and S. Teresa, S; Teresa Gallura, Monti di Bitti, Gennargentu
? 1914 - S. Teresa e Isili

Exs.: FI.

SOLEIROL Joseph François (1781-1863)

He certainly collected in some localities in northern Sardinia. The lectotype for *Genista ephedroides* is his, chosen in G by Varsecchi (1986, Boll. Soc. Sarda Sci. Nat., 25: 198-202).

SOMMIER Stephen (1848-1922)

Florentine botanist of French origin, researcher of Mediterranean flora but also of Siberian Flora. He visited central Sardinia in 1872, together with Marcucci and Gestro. He collected at Capo Figari, Cagliari at Capo S. Elia, Iglesias, Taquisara (Ulassai), Ierzu, San Vito, Talentino, M. Narba (Sarrabus). Among other things, he described *Linaria sardoa* and *Sesleria insularis*.

Exs.: His exsiccata are deposited in FI.

TARGIONI TOZZETTI Adolfo (1823-1902)

Entomologist and physicist. Professor of Botany, Medical Subjects and Zoology at Florence. He collected on M. Settefratelli in 1869.

Exs.: Material deposited in FI.

THOMAS Philippe (x -1831)

Thomas lived for a certain period at Cagliari until his death. Bertoloni (1829, Ann. Stor. Nat. Bologna, 1: 260) mentions him as "Thomas son". He collected plants from southern Sardinia

together with Moris. By 1825 he had already accompanied him on several expeditions and collaborated with him in identifying plants. Many of his collections, sent to his brother Emanuel Thomas in Switzerland, were sold at Bex, in the Canton of Vaud, for 24 francs per 100. There is a printed catalogue of these collections published by E. Thomas (1841).

He collected for herbaria with Moris following coastal itineraries from the Gulf of Cagliari (Villasimius and Capo Carbonara, Pula and Teulada). From the material examined, it appears he also collected at Fonni (1826), Baunei and Cagliari (1828).

Exs.: FI-W, TO.

VACCARI Antonio (1867- ?)

Naval Engineer serving at La Maddalena Base and a botany enthusiast, author of a Flora of the Maddalena Archipelago (1894-1908).

1890 - S. Antioco, Is. Maddalena,

1892 - Tavolara

1893 - Is. Maddalena, Asinara, Figarolo, Caprera, Spargi

1895 - Isolotto Corcelli

1902 - Tavolara

1904 - La Maddalena, Isolotto Giardinelli

1905 - Is. Razzoli, Is. Caprera.

1906 - Is. Maddalena, Is. Mortorio, Monte Limbara

1907 - Fiume Liscia.

1910 - Is. Maddalena

Exs.: His herbarium was donated to the Botanical Institute of the University of Modena (MOD). FI, RO, SASSA.

VAHL Martin (1749-1804)

Danish botanist of Norwegian origin, student of Linneus. We know about his presence on the island from information given to us by Bertoloni (1829, Ann. Stor. Nat. Bologna, 1: 259): “The famous Martin Vahl also touched Sardinia and collected plants there, and among these he found a new species of *Genista*, or *Spartium*, that he sent to De Candolle, and since he wrote in a letter dated 1 8th March, 1825, where he also advised me he would publish it in his *Prodromus syst. natur.* under the name of *Genista ephedrioides*, and indeed it was published as such *nel tom. 2, p. 147. n. 18.* That saw the light that same year”.

Exs.: G, C, ecc.

VIVIANI Domenico (1772-1840)

Professor of Botany at the University of Genoa and founder of the local botanical gardens. He did not collect plants himself in Sardinia, but studied those that his student Stefano Serafino, a pharmacist in Boniface, occasionally sent him. He is attributed with almost 70 species from Corsica, some of which also occur in Sardinia, such as *Potentilla crassinervia*, *Scabiosa mediterranea* (*Cephalaria mediterranea* (Viv.) Szabò), *Lonicera*

cyrenaica, etc. Material regarding *Cerintho longiflora*, *Centaurea filiformis* e *Asperula deficiens* from Tavolara, for *Antirrhinum alsinaefolium*, *Senecio flabellatus* from Castelsardo and *Hieracium primulaefolium* (= *Taraxacum officinale* Weber var. *levigatum* DC. f. *obovatum* DC.) all come from Sardinia.

Exs. : His herbarium in G was unfortunately destroyed in the war, but some of the specimens he sent can be found in several other herbaria: BOLO (Bertoloni), TO, RO (Cesati), etc. Fortunately Illario (1937) carried out a critical revision of the species and varieties that Viviani described.

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