BANCO DE DATOS DE BIODIVERSIDAD DE CABO VERDE

ARCHIVO DOCUMENTAL

PELCRIN
F00014

INTERREG III B
ACORES - MADEIRA - CANARIAS

PUBLICACIÓN

Tipo de publicación: Trabajo en revista **Nº de fotocopias:** 6

Autor/es: Gomes, I., Leyens, T., Da Luz, B., Costa, J. & GonÇalves, F.

Año: 1999

Título: New data on the distribution and conservation status of some angiosperms of the Cape Verde Islands, W Africa

Revista: Willdenowia **Nº edición:**

Volumen: 29 **Número:** **Páginas:** 105-114

Palabras clave: CONSERVACIÓN, ECOLOGÍA, FOTOGRAFÍAS, TAXONOMÍA

NOTAS

ADMINISTRACIÓN

Fecha inicio: 19/7/04 **Fecha final:** 20/7/04

Operador: Rodríguez Navarro, Leticia **Supervisor:** Sánchez Pinto, Lázaro

Firma: **Firma:**

ISILDO GOMES, TERESA LEYENS, BERENICE DA LUZ, JUDITH COSTA, FATIMA GONÇALVES

New data on the distribution and conservation status of some angiosperms of the Cape Verde Islands, W Africa

Abstract

Gomes, I., Leyens, T., Luz, B. da, Costa, J. & Gonçalves, F.: New data on the distribution and conservation status of some angiosperms of the Cape Verde Islands, W Africa. – Willdenowia 29: 105-114. 1999. – ISSN 0511-9618.

Based on recent field work, data on the distribution and conservations status of 13 taxa of flowering plants of the Cape Verde Islands are provided. New records for single islands are *Periploca laevigata* subsp. *chevalieri* for Sta. Lucia, *Paronychia illecebroides* for the Ilhéus Rombo, *Asparagus squarrosus* and *Erodium malacoides* for Fogo, and *Cocculus pendulus* for Sal. New records noteworthy with respect to species ecology, reconstruction of the potential natural vegetation or conservation status are presented for nine endemic taxa, viz. *Periploca laevigata* subsp. *chevalieri*, *Sonchus daltonii*, *Tolpis farinulosa*, *Echium hypertropicum*, *E. vulcanorum*, *Lobularia canariensis* subsp. *fruticosa*, *Polycarpaea gayi*, *Euphorbia tuckeyana* and *Globularia amygdalifolia*.

Intensive field work and analysis of the state of biodiversity on all islands during the years 1993 to 1999 led to the publication of several contributions to the flora and vegetation of the archipelago of Cabo Verde (Brochmann & al. 1997, Gomes & Vera-Cruz 1993, Gomes & al. 1995a-b, 1998, Gomes 1997, Kilian & Leyens 1994, Leyens 1998, Leyens & Lobin 1995, Lobin & al. 1995) as well as to the compilation of the First Red Data List for the Cape Verde Islands (Leyens & Lobin 1996), the elaboration of the National Strategy for Biodiversity Conservation (SEPA 1999) and a compilation of all areas in urgent need of protection (Leyens unpubl. diploma thesis 1994, Gomes & al. in prep.). As part of the activities of the Instituto Nacional de Investigação e Desenvolvimento Agrário (INIDA) and the Departamento de Geociências do Instituto Superior de Educação (ISE) intensive field studies were conducted at many different localities on several islands, resulting in a thesis (Gomes 1997) and several terminal study papers (Luz 1999, Costa 1999, Gonçalvez 1999). The results show that the vegetation and flora of the islands are still not fully known and much more field work is needed.

Although Santiago is one of the islands where the first botanical investigations were carried out (Webb 1849, Schmidt 1852, Chevalier 1935) and where many intensive field studies were

conducted later (Lobin 1982, Rustan & Brochmann 1985, Nogueira & Ormonde 1981,1985), it is the island were most of the floristic discoveries and rediscoveries were made during the last years. On this island intensive investigations were conducted by the authors in the Ribeira Seca and Ribeira Principal, at Mato Gêgê and Lugar Velho from March 1998 to April 1999. On the island of Fogo the entire higher zones of the old crater rim (Bordeira) and the Regato de Pico Novo have been subject to intensive field studies since 1997. In addition investigations on the island of Boavista, Sta. Lucia and the Ilhéus do Rombo N of Brava were done. This paper presents some interesting records made during these investigations. The classification of conservation status follows the Primeira Lista Vermelha de Cabo Verde (Leyens & Lobin 1996).

Dicotyledoneae

Asclepiadaceae

Periploca laevigata subsp. *chevalieri* (Browicz) G. Kunkel
The shrub grows mainly in the semiarid and subhumid zones between 400 and 1800 m. Having disappeared from large areas of its former distribution but being still quite frequent on some islands it is classified as Endangered (EN). Its utilization for animal skin tanning mentioned by Chevalier (1935) has been confirmed by inhabitants of Fogo but is nowadays rarely practiced (obs. Leyens). On Santiago it is used as a medicinal plant to treat fever and cough (obs. Gomes).

For Santiago only one record of 1934 (Chevalier 1935) had been known before a population of three individuals was discovered at Mato Gêgê (Concelho de Santa Catarina) in October 1994 (Duarte & Gomes, in prep.). Its presence at this locality in inaccessible escarpments with *Globularia amygdalifolia*, *Campylanthus glaber* subsp. *glaber* and *Heteropogon contortus* was confirmed in January 1999 (obs. Kilian, Leyens & Gomes). In May 1999 two more individuals were discovered at two further localities.

The species is here recorded for the first time for Sta. Lucia, where a single shrub was found in the Ribeira dos Penedos. In agreement with Gomes & al. (1996) the species is classified as Critically Endangered (CR) for Santiago and Rare (R) for Sta. Lucia.

SANTIAGO: Ribeira da Garça, at Lugar Velho, NNW facing escarpments at 630 m, accompanied by *Sideroxylon marginata*, *Echium hypertropicum*, *Campylanthus glaber* subsp. *glaber* and *Polycarpaea gayi*, 26.5.1999, *Gomes & Mendes* (obs.); Ribeira de Batalha, NNE facing escarpments at 600 m, 26.5.1999, *Gomes & Mendes* (obs.).
STA. LUCIA: Ribeira dos Penedos, at c. 170 m, 14.9.1996, *Leyens CV-96-633* (herb. Lobin).

Asteraceae

Sonchus daltonii Webb
This endemic rosette shrub was rediscovered on Santiago in December 1993 in the NE to NW facing cliffs of the Serra da Malagueta (Gomes & al. 1995a) after it had been recorded from this island only once in 1839 (Kilian 1988: 181). In November 1998 another population of three individuals was found in the Serra da Malagueta, being threatened by a strong invasion of *Lantana camara* and *Furcraea foetida*. The species is classified as Critically Endangered (CR) for this island as the number of individuals does not seem to surpass a total of 30.

In years of low precipitation most individuals do not develop rosettes but stay totally retracted. A minimum precipitation quantity also seems necessary to induce floration as in some years no flowering could be observed (e.g. 1997 on Fogo, obs. Leyens). Thus the general classification of the population sizes is quite difficult. The species is strongly collected as it is willingly eaten by all kind of livestock. Normally the species is collected before or in flowering state so that it would not reach fruiting. As the species has been strongly over-collected on the island of Fogo a concept has been elaborated in collaboration with the local population abandoning its collection in certain regions for some years. As a combined result of these activities and of the higher precipitation in 1998 a large part of the population of the respective region reached fruiting (obs. Leyens).

Fig. 1. *Tolpis farinulosa* (Webb) J. A. Schmidt – Santiago, Serra da Malagueta, 850 m, NNW slope. – Photograph by I. Gomes, 5.1999.

SANTIAGO: Serra de Malagueta, concelho de Santa Catarina, Quebrada, SSW facing slopes at c. 840 m, 3 individuals, 18.11.1998, *Gomes, Luz, Costa & Gonçalves* (obs.).

Tolpis farinulosa (Webb) J. A. Schmidt
The woody perennial (Fig. 1) is a typical element of humid and subhumid escarpments between 800 and 1800 m, found on the islands of Sto. Antão, S. Vicente, Fogo and Brava (Kilian 1988, Brochmann & al. 1997).

On Santiago, until now not known to literature, a small population of three individuals was found in the escarpments of João Sanches in the Ribeira Seca in October 1994 (Duarte & Gomes in prep.). Intensive field work with the students of the Instituto Superior de Educação (ISE) since the end of 1998 led to the discovery of several other populations. As all known populations on Santiago are small and grow in heavily disturbed zones, the species is classified as Endangered (EN) for this island.

On Fogo the species is recorded for the first time from the southern part of the island where a small population was found in the Southeast in the subhumid zone of the Regato de Pico Novo at c. 500 m (*Gomes, Luz & Centeio*) and in the Southwest in the semiarid zone in the Ribeira Fontinho at 1850 m (*Leyens obs.*).

As it is the case with *Sonchus daltonii*, in years of low precipitation many individuals of *Tolpis farinulosa* remain retracted and thus invisible (obs. Leyens). It is therefore assumable that the occurrence of both species in the semiarid zones will prove fairly regular.

SANTIAGO: Serra da Malagueta, at the head of the Ribeira Principal, c. 850 m, 3 individuals in the NNW facing cliffs, 18.11.1998, *Gomes, Luz, Costa & Gonçalves* (obs.); ibid., 720 m, c. 25 individuals, 19.1.1999, *Leyens CV-99-1089* with *Kilian & Gomes* (herb. INIDA); ibid., NNE facing

Even though it is not assumable that the range of *Echium vulcanorum* exceeded considerably into the northern part of the island. The factor limiting its distribution is, however, most likely not the climate but the geomorphology: where the rocky slopes replace the lapilli dominated slopes *Echium* starts to diminish and becomes replaced by *Euphorbia tuckeyana, Artemisia gorgonum, Periploca laevigata* subsp. *chevalieri* and other species (Leyens in prep). As the NNW part of the old crater rim (Bordeira) is dominated by rocky slopes it seems probable that *Echium* in that part has always been a rare component of the vegetation.

Its conservation status should be maintained as Endangered (EN) because human pressure for wood and animal fodder is quite severe. As animals prefer the soft flowering branches, the species is preferably collected in early flowering state and the achievement of seed maturity is frequently prevented, thus regeneration through seedlings is very poor (obs. T. Leyens).

FOGO: Achada Gancho, south-eastern part of the island, lapilli covered slopes at 1750 m, 2.7.1999, *Leyens CV-99-1105* (herb. Leyens); north-western part of the island, on the slopes of Montinho at 1870 m, 3 individuals, 7.6.1999, *Leyens CV-99-1102* (herb. Leyens); western part of the old crater rim (Bordeira), Ribeira Figueirinha (upper part of the Ribeira Isabel), at the Cume de Mte. Vermelho, at 2340 m, 5.12.1996, *Leyens CV-96-669* (herb. Lobin).

Brassicaceae

Lobularia canariensis subsp. *fruticosa* (Webb) Borgen

This inconspicuous, white-flowering endemic shrublet is known from the islands of Sto. Antão, S. Nicolau, Santiago, Fogo and Brava (Gomes & al. 1995b). Due to the lack of sufficient data, its general conservation status was classified as Indeterminate (I) (Gomes & al. 1996).

On Fogo too it was qualified as Indeterminate as already by Chevalier (1935) only one record is mentioned from Fogo (Espia près de Mosteiros, 1000 m, *Chevalier 45132*) and also by Borgen (1987) only two localities are indicated for the island. During the last three years of intensive field have overseen that Diniz & Matos (1987) give the species as a typical element of the arid littoral communities in the south-eastern part of the island (e.g. Ponta da Praia Grande), in the north-western part of the island (Ponta da Salina) and probably also in the north-eastern part of the island (Fajãzinha, Ponta Queimada).

The presence of the species is confirmed for Sta. Luzia where it was collected in 1996. In former times it has probably been victim to goat grazing on Sta. Luzia but as could be observed and was confirmed by local fishermen, there have been no goats on the island in the last years. Thus the species is classified as Vulnerable (VU) for Sta. Luzia and Rare (R) for the Ilhéus Rombo.

FOGO: Ponta da Salina, rocky coast in the north-western part of the island, 4.7.1999, *Leyens CV-99-1106* (herb. Leyens); north-western subhumid part of the old crater rim (Bordeira), Boca Rocha, at 1770 m, 1999, *Leyens* (obs.); Montinho, NE facing steep escarpments of the subhumid part of the old crater rim at 1970 m, 1998, *Leyens* (obs.); ibid, SW facing slopes at 1820 m, 13.2.1999, *Leyens CV-99-1098* (herb. Leyens).
ILHÉUS DO ROMBO: ILHÉU DA CIMA: On rocky slopes, c. 70 m, 2.2.1994, *Leyens CV-94-051* (herb. Lobin).
MAIO: On the top of Mte Penoso, W facing slope at 300 m, 5.1.1994, *Leyens, Kilian & Gomes* (obs.).
SANTA LUZIA: Ribeira dos Penedos, at c. 100 m, 14.9.1996, *Leyens CV-96-619* (herb. Lobin).

Polycarpaea gayi Webb

This morphologically very variable, small, endemic (sub)shrub is known from the islands of Sto. Antão, S. Vicente, Branco, S. Nicolau, Sal, Santiago and Fogo, where it grows most frequently in the semiarid and subhumid zones (Brochmann & al. 1997). For Fogo, Brochmann & al. (1997) as well as Matos & Diniz (1987) mentioned the species as occurring mainly at elevations below 1400 m. Intensive field studies by T. Leyens have shown now that the species is also a regular though not abundant element of the higher elevations, being equally frequent in the subhumid