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In copertina: Femmina di *Acrosternum heegeri* rinvenuta nel comune di Mezzocorona (TN).

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JEAN-PIERRE REDURON

NOTE ON THE TAXONOMY OF THE SPECIFIC COMPLEX
ATHAMANTA CRETENSIS S.L.

Abstract - JEAN-PIERRE REDURON - Note on the taxonomy of the specific complex *Athamanta cretensis* s.l.

The problem of the taxon *Athamanta vestina* is discussed, concluding that it is appropriate to apply the subspecies level. For this a new combination is proposed: *Athamanta cretensis* subsp. *vestina*. A key to the subspecies and varieties of *Athamanta cretensis* is also provided.

Keywords: Apiaceae - Endemism - New combination - Determination key.

Riassunto - JEAN-PIERRE REDURON - Nota sulla tassonomia del complesso specifico *Athamanta cretensis* s.l.

Viene discussa la problematica del taxon *Athamanta vestina* giungendo alla conclusione che è opportuno applicare il livello di sottospecie. Per questo viene proposta una nuova combinazione: *Athamanta cretensis* subsp. *vestina*. Viene anche fornita una chiave per le sottospecie e varietà di *Athamanta cretensis*.

Parole chiave: Apiaceae - Endemismo - Nuova combinazione - Chiave di determinazione.

INTRODUCTION

Botanists are frequently faced with difficulties when studying the *Athamanta cretensis* group, especially when the plants come from the Italian Alps. The variation of this group was given a treatment by THELLUNG (1926) who divided the *A. cretensis* species into 2 varieties (var. *hirsuta*, var. *decipiens*), both again divided into 3 forms.

The most problematic taxon is *A. vestina* A. Kerner restricted in a narrow area in the Italian Alps of Belluno and Brescia, and which was historically described from Val Vestino and Val di Ledro (KERNER & PORTA, 1886). PIGNATTI (1982) considers it as a closely related species to *A. cretensis* and stresses the special ecology of the

taxon *vestina* (shady calcareous rocks, moist ravines), which is different from *A. cretensis* (sunny calcareous rocks, with ± dry climate). Moreover, he noticed *A. vestina* grows in the area not covered by the Pleistocene glaciers. This last question becomes important because, within the European Apiaceae, several similar cases are extant: entities occupying colder habitats than the typical plants (higher altitudes, biotopes facing the north...). In such situations can be cited *Angelica sylvestris* L. subsp. *bernardiae* Reduron, *Bupleurum ranunculoides* L. subsp. *ranunculoides*, *Anthriscus sylvestris* (L.) Hoffm. subsp. *alpina* (Vill.) Gremli. The subspecific rank given by REDURON & MUCKENSTURM (2007) is based on the fact these entities are not only different morphologically or ecologically, but are also relicts from previous times with an own biological history during which no genetic barriers were put up. Such taxa are of great scientific interest.

MORPHOLOGY

The Herbarium of Rovereto (ROV) and the C. Argenti's private herbarium contain a lot of well-gathered samples of this group. Accordingly, it was possible to study them after having taken in account the relevant literature. It was then feasible to propose the following infraspecific key of *Athamanta cretensis*. It should be useful to botanists identifying plants of this group.

1. Plant usually < 20 cm, rarely > 35 cm. Stem mostly simple or only branched at the base (1-3 branches). Umbel with (4) 5-12 (15) rays often covered with a mix of short-curved and long-spreading hairs*; length of the longest ray (1,5) 3,3^{average} (5,5) cm; main umbel (ending the main axis) (3) 7^{average} (12) cm in diameter
..... **subsp. *cretensis***
2. Leaves hairy, divided into linear-lanceolate to linear segments **var. *cretensis***
- 2'. Leaves glabrous or glabrescent, ± glossy, often divided into narrowly linear segments **var. *decipiens* Duby**
- 1'. Plant usually 25-60 cm. Stem branched at the upper part (5-15 branches). Leaves often (but not always) glabrescent, ± glossy, usually divided into narrowly linear segments. Umbel with (12) 15-25 (36) rays covered with long-spreading hairs (normally without curled ones)*; length of the longest ray (3,6) 5,3^{average} (8) cm; main umbel (ending the main axis) (6,5) 10^{average} (14,5) cm in diameter
..... **subsp. *vestina* (A.Kerner) Reduron**

* There are often very short straight hairs more.



Fig. 1 - Typical specimen of *Athamanta cretensis* subsp. *vestina*, det. J.-P. Reduron: Provincia di Trento, Riva del Garda, rocky watershed on right of Val Palae, 617-680 m, 19/05/2011, leg. F. Prosser et al., ROV 57971.

NOMENCLATURE

Athamanta cretensis L. *Sp. Pl.* 245 (1753)
subsp. *cretensis*
var. *cretensis*
var. *decipiens* Duby *Bot gall.* 1: 228 (Febr. 1828 *vide* Thell.)
subsp. *vestina* (A.Kerner) Reduron **comb. nov.**
basionym: *A. vestina* A.Kerner *Sched. Fl. Austro-Hung.* 4: 37 (1886)
based on a specimen from Porta («*Tirolia australis. Val Vestino et Val di Ledro; copiose in rupibus calcareis; 1000^m s. m.*»)
TYPI: Institute of Botany, University of Vienna (WU).
ISOTYPUS (WU) [about 30 cm high, with 7 branches; umbel quite large (10 cm in diameter, but only 12 rays)].

The *International Plant Names Index* (IPNI) and *The Plant List* website do not register any subspecies for *A. cretensis* and the main synonyms.

A. mutellinoides Lam. *Encycl.* 1(1): 325 (1783) is a short plant (16-19 cm) with almost glabrous and glossy leaves. In the Lamarck's herbarium (P), the most relevant specimen has no label from Lamarck's hand and is registered under n° P00308026; with no name nor written indication, it cannot be selected as a type. Based on the description, *A. mutellinoides* Lam. is a synonym of the var. *decipiens*.

A. capillacea Lam. *Encycl.* 1(1): 325 (1783) is a branched plant, with leaves cut into capillary segments; the umbel is composed of about 20 rays. It is a cultivated plant considered as native of the "île de Candie", old name of the island of Crete. It shares several traits with *A. vestina*, but because of its cultivated status and its supposed origin, it cannot be put into the synonymy of *A. vestina*; *A. capillacea* remains a doubtful cultivated plant of the *A. cretensis* group. In fact, the specimen of the Lamarck's herbarium (P00308025) is the **holotype** of *A. capillacea* Lam. bearing the indication "enc." [and not of *A. mutellinoides* as indicated in REDURON & MUCKENSTURM, 2007: 473].

A. rupestris Vill. *Hist. pl. Dauphiné* 2: 648 (1787) is given as a variant with glabrous leaves divided into long and remote segments. It is also a synonym of the var. *decipiens*.

COMMENTS

The *Athamanta cretensis* specific complex encompasses highly allogamous plants; therefore it is logical to find quite often intermediates between the above cited infraspecific taxa. The area of the subsp. *vestina* is surrounded by the subsp. *cretensis* (FERRARINI, 1987), but in the *FloraFaunaAltoAdige* website maps both subspecies are

recorded in same quadrants. It is also important to keep in mind that gene exchanges can take place nowadays, but could have also happened in the past and that more open habitat in favour of subsp. *cretensis* often follows the mountain “development” by man, resulting in new contacts between entities formerly separate. In brief, the key presented here is not clear-cut according to the biological, ecological and geographical situation; it is congruent with the infraspecific level.

PAGNI *et al.* (1986) have given distinctive anatomical features between subsp. *cretensis* and subsp. *vestina*. Nevertheless, the discriminant character given for the position of the styles at the top of the fruit seems not relevant since cases of erect-patent (like a V) and even patent styles can be present in both subspecies.

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SITOGRAPHY

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