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Artemisia annua L. *(Asteraceae)* new for the Sicilian flora

Abstract

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During a research project on bryophytes and tracheophytes of urban ecosystems, *Artemisia annua* L. has been found in urban and suburban habitats of Enna. Previously identified in northern and central Italy it is a new addition to the Sicilian vascular flora.

In the summer of 1997 some specimens of an unknown Composite were observed along the roadsides of Enna. The anthesis was still at the initial stage and the plant could not be identified. In October of the same year the plant was seen to bear flowers and fruit and was identified as *Artemisia annua* L. In autumn 1998, further surveys showed that the species was spreading widely.

Until now in the Sicilian territory, the gen. *Artemisia* has been represented by 5 species: *Artemisia vulgaris* L., *A. verlotorum* Lamotte, *A. arborescens* L., *A. alba* Turra, *A. variabilis* Ten.

Voucher specimens of *A. annua* are kept in PAL and in CAT.

Description (Figs. 1-2)

Glabrous annual 5-15 dm, with a strong aromatic smell. Leaves 2-3 pinnatisect; lobes linear-lanceolate, acute, entire or with few teeth. Numerous, hemispherical capitula (2 mm diametre) in a lax paniculate inflorescence. Involucre 1.5-2 mm, inner yellowish bracts with a wide hyaline margin. Flowering time July to November.

Taxonomic remarks

Artemisia annua is related to *Artemisia biennis* Willd. from which it however differs for its leaves with a toothed margin, very numerous and sessile capitula; inner green bracts with a narrow hyaline margin.

Fig. 1. Photo of the panicle of *Artemisia annua* from Enna growing site (C. Sicily).

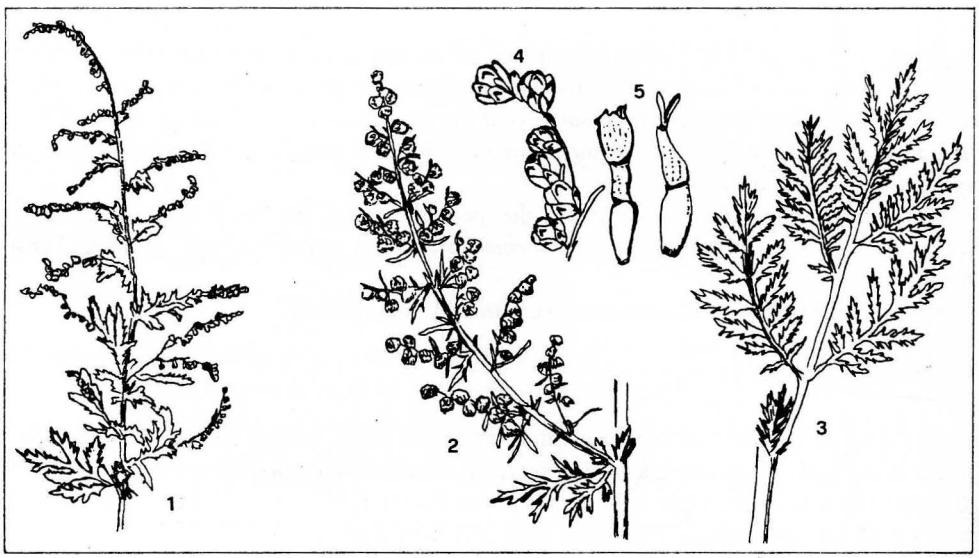

Fig. 2. *Artemisia annua* L. **1,** general habit; **2,** particular of the general habit; **3,** leaves; **4,** capitula; **5,** flowers.

Examined material

Sicilia, Enna: C.da Mugavero (VB 35.67), 800 m, on marlclayey soils, 30 Jul 1997, 10 Oct 1997, *Cristaudo & Lo Giudice*; near St. Anna (VB 35.67), 750 m, on landfil, 25 Oct 1998, *Cristaudo & Lo Giudice*.

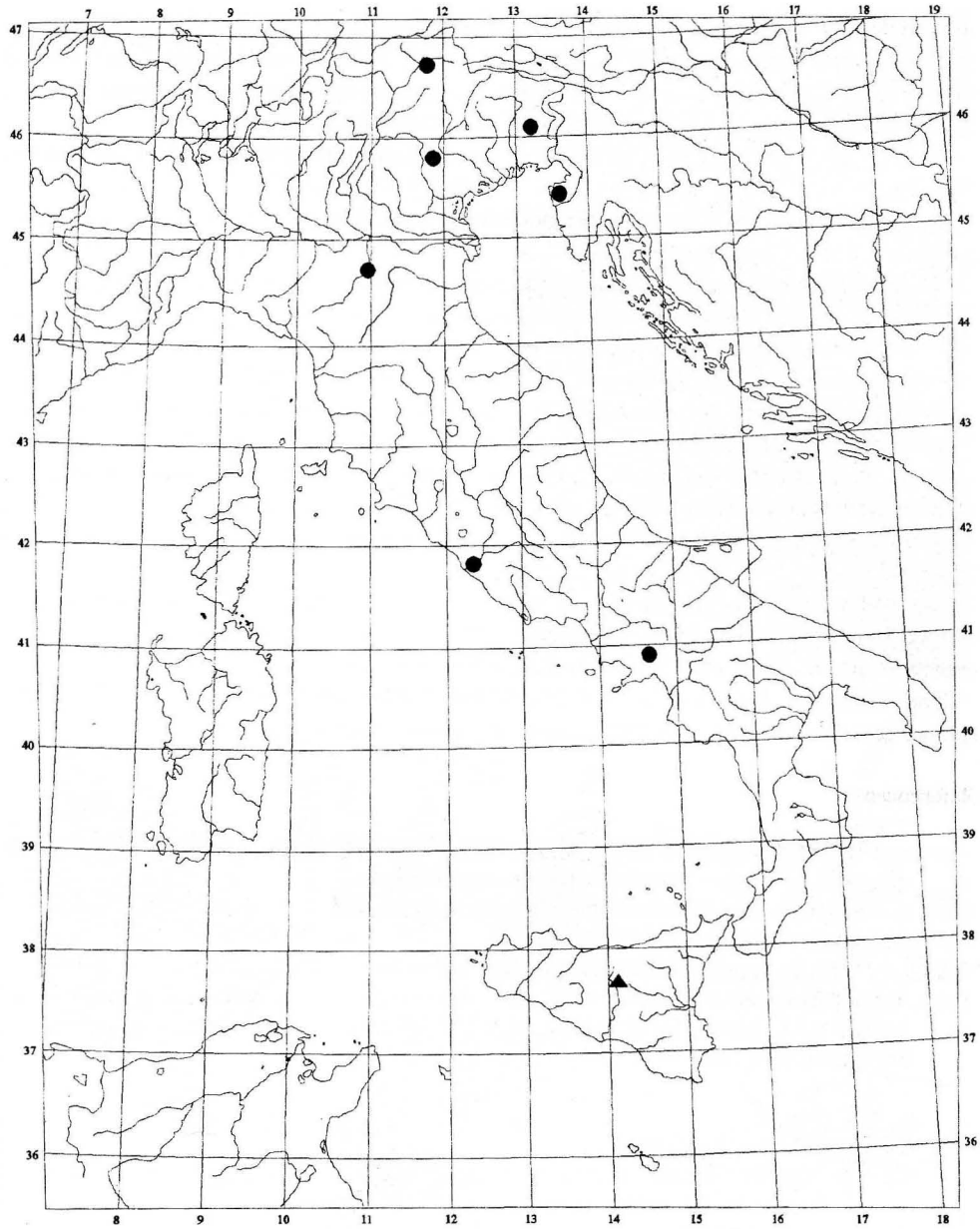

Fig. 3. Distribution of *Artemisia annua* L. in Italy. (●) data from literature, according to Pignatti (1982); (▲) new Sicilian record.

Ecology and Italian distribution (Fig. 3)

Artemisia annua, native to Danube regions, Caucasus and Central Asia, is naturalized in Central and Southern Europe (Fiori 1925-1929). At present it is distributed over a wide

area including Albania, Bulgaria, Jugoslavia, Romania, Russia, Krym, Turkey (European part), Austria, Czechoslovakia, France, Germany, Switzerland, Hungary and Poland (Tutin 1976). In Italy *Artemisia annua* has been reported up to now in the Alpine Valleys, the Po Valley, Rome and Naples (Pignatti 1982, Anzalone, 1984).

In Sicily the species has been found in Enna at an altitude between 750 and 800 m (Fig. 3).

Artemisia annua occurs mostly on moderately cool, eutrophic, marlclayey soils, along roadsides, and on ruins in open areas.

The area where *Artemisia annua* was found is characterized by an annual precipitation of 895 mm and an annual mean temperature of 13° C. In collecting localities *Artemisia annua* occurs together with annual and perennial species of the *Chenopodietalia muralis* Rivas-Martinez 1977 and *Agropyretalia repentis* Oberd., Th. Mull. & Gors in Oberd. et al. 1967 orders such as *Chenopodium album* L., *Conyza bonariensis* (L.) Cronq., *C. albida* Willd., *Atriplex rosea* L., *Picris echioides* L., *Inula viscosa* (L.) Aiton., *Achillea ligustica* All., *Dactylis hispanica* Roth, *Convolvulus arvensis* L., *Agropyron repens* (L.) Beauv. Nevertheless the coenosis cannot be included in any of the syntaxa described within the orders mentioned above. Research on its possible taxonomic position is still in progress.

As well as enriching the already consistent steppe contingent of Sicily the new finding emphasizes the floristic interest of urban areas, where it is possible to find rare and endemic species, significant from a phytogeographic point of view.

The finding of *Artemisia annua* is also interesting from a medical point of view. This species produces an allergenic pollen, long-persistent in the atmosphere.

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