

ANTHEMIS TOMENTOSA L. (ASTERACEAE) A NEW SPECIES IN CROATIAN FLORA

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The species *Anthemis tomentosa* L. was found on the headland of rt Kamenjak, in the surroundings of Premantura village, near Pula in Istria (Croatia). This is the first finding of this plant species in Croatia and the northernmost one considering its whole distribution area.

Key words: *Anthemis tomentosa*, Croatia

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Vrsta *Anthemis tomentosa* L. nađena je na najjužnijem dijelu Istre, na rtu Kamenjaku, blizu Premanture. To je prvo nalazište ove biljke u Hrvatskoj i najsjevernije u okviru njenog areala.

Ključne riječi: *Anthemis tomentosa*, Hrvatska

According to FERNANDES (1976:154) the species *Anthemis tomentosa* L. is a plant whose area in Europe includes the »Central and Eastern Mediterranean region – Gr, It, Si, Tu«.

So far no single finding was noted for Croatia. PIGNATTI (1982:71, floristic map) noted the species for southern Italy (Puglia, Cal., Sic., Malta), marking the species as NE-Mediterranean, with distribution over the northern coast of the Mediterranean.

Since we found the species in Croatia we consider it useful to publish details.

The species *Anthemis tomentosa* L. was recently found for the first time in Croatia. The locality is the southernmost headland of the Istria peninsula, rt Kamenjak (Fig. 1), UTM VK 16, where it was found in June, 1995. Rt Kamenjak is a long tongue of land, only a few kilometers long and only a few hundred meters wide, extending

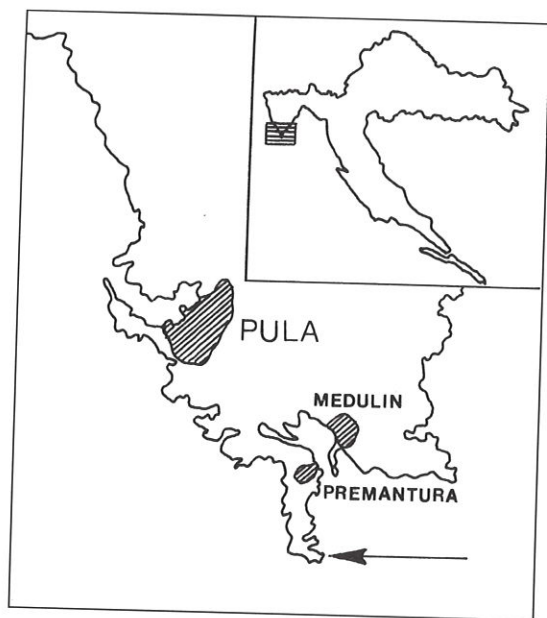


Fig. 1. The locality of the species *Anthemis tomentosa* L. on the rt Kamenjak, South Istria (Croatia)

the direction North-South. Due to the small land area surrounded by sea, except for one northern strip of land connecting it with the Istrian peninsula, this area in many ways functions like an island. This is most probably reflected in climate patterns. As a result it has very distinct floristic and vegetational characteristics compared to nearby areas. The same locality contains another rare (one of two, and only one recently checked with certainty) plant species, *Convolvulus lineatus* (TOPIĆ 1994).

Anthemis tomentosa grows on the coast, about 10–20 m from sea water. The coast is rocky, consisting of rudist limestone. The plant is spread over an area of about 100 m², only a few meters above sea level. Floristic composition (Tab. 1) shows that the whole area is influenced by salt, particularly the stand nearest to the sea (record no. 1). This stand, where the halophytic species such as *Lotus cytisoides*, *Limonium cancellatum*, *Crithmum maritimum*, *Agropyron litorale*, *Plantago holosteum* var., are abundantly present, could be phytocenologically marked as *Plantagini-Limonietum cancellati* association H-ić (comp. HORVATIĆ 1963:13).

The influence of salinization is obvious throughout the rest of area as well (*Catapodium loliaceum*, *Plantago coronopus*, *Hainardia cylindrica* and others) and consequently, numerous plants of Mediterranean rocky grasslands prevail (comp. records no. 2–4).

The species *Anthemis tomentosa* was in full blossom at the beginning of June (Fig. 2), fully developed with somewhat lignous branches at the bottom, with densely

Table 1. Floristic composition of vegetation containing *Anthemis tomentosa*

No. of record	1	2	3	4
<i>Anthemis tomentosa</i>	3	3	3	1
Halophytic plants				
<i>Lotus cytisoides</i>	3	.	.	.
<i>Crithmum maritimum</i>	1	.	.	.
<i>Limonium cancellatum</i>	1	.	.	.
<i>Agropyron litorale</i>	1	.	.	.
<i>Plantago holosteum</i> var.	1	2	1	2
<i>Plantago coronopus</i>	+	1	1	1
<i>Catapodium marinum</i>	+	+	+	+
<i>Schoenus nigricans</i>	+	+	.	.
<i>Euphorbia pinea</i>	+	.	.	.
<i>Hainardia cylindrica</i>	.	+	.	.
Plants of Mediterranean grasslands				
<i>Trifolium scabrum</i>	1	1	1	1
<i>Reichardia picroides</i>	+	+	+	1
<i>Ononis reclinata</i>	.	+	1	1
<i>Anthyllis vulneraria</i> var. <i>weldeniana</i>	.	+	1	1
<i>Centaureum pulchellum</i>	.	+	+	+
<i>Dorycnium hirsutum</i>	+	.	+	.
<i>Blackstonia perfoliata</i>	.	+	+	.
<i>Romulea bulbocodium</i>	.	.	1	+
<i>Linum bienne</i>	.	.	+	+
<i>Allium sphaerocephalon</i>	+	.	.	.
<i>Bellardia trixago</i>	+	.	.	.
<i>Catapodium rigidum</i>	+	.	.	.
<i>Helichrysum italicum</i>	+	.	.	.
<i>Dactylis hispanica</i>	.	1	.	.
<i>Aegilops geniculata</i>	.	+	.	.
<i>Avena barbata</i>	.	+	.	.
<i>Trifolium angustifolium</i>	.	+	.	.
<i>Bromus condensatus</i>	.	.	1	.
<i>Cynosurus echinatus</i>	.	.	1	.
<i>Galium divaricatum</i>	.	.	1	.
<i>Euphorbia nicaeensis</i>	.	.	1	.
<i>Centaureum maritimum</i>	.	.	+	.
<i>Linum gallicum</i>	.	.	+	.
<i>Eryngium amethystinum</i>	.	.	+	.
<i>Hyoseris scabra</i>	.	.	+	.
<i>Lupinus micranthus</i>	.	.	.	1
<i>Linum strictum</i>	.	.	.	1
<i>Hedypnois rhagadioloides</i>	.	.	.	1

Other species				
<i>Cynodon dactylon</i>	1	1	1	2
<i>Minuartia verna</i>	+	1	.	+
<i>Dactylis glomerata</i>	.	+	3	+
<i>Sherardia arvensis</i>	.	+	+	+
<i>Cichorium intybus</i>	+	+	-	.
<i>Sonchus</i> sp.	+	.	+	.
<i>Cerastium</i> sp.	+	.	+	.
<i>Bromus hordaceus</i>	.	+	+	.
<i>Allium</i> sp.	.	+	+	.
<i>Ornithogalum comosum</i>	.	+	+	.
<i>Convolvulus lineatus</i>	.	.	2	3
<i>Trifolium campestre</i>	.	.	2	+
<i>Centaurium erythraea</i>	.	.	+	+
<i>Anagallis arvensis</i>	.	.	+	+
<i>Carex flacca</i>	+	.	.	.
<i>Sedum sexangulare</i>	+	.	.	.
<i>Convolvulus arvensis</i>	+	.	.	.
<i>Carex</i> sp.	+	.	.	.
<i>Orobanche</i> sp.	.	.	+	.
<i>Euphorbia helioscopia</i>	.	.	.	+
<i>Herniaria glabra</i>	.	.	.	+
<i>Medicago lupulina</i>	.	.	.	+

Nomenclature is given according to PIGNATTI (1982)



Fig. 2. *Anthemis tomentosa* in blossom in South Istria (June 1, 1996)

pubescent stem and leaves, dissected in narrow, somewhat fleshy leaflets. Its vitality was obviously untouched, vigorously blooming and fruiting there in large numbers, in spite of the small area.

The finding is interesting, as it fits well into the common distribution of *Anthemis tomentosa* (Central and East Mediterranean), although the locality is the northernmost one. The botanical peculiarity of this site incited us to undertake climatological investigation of the locality. The data from the nearest meteorological station, about ten kilometers away to the North (Pula) completely failed to provide a corresponding floristic and vegetation picture, showing indirectly, at least in summertime, a more arid climate for our locality.

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SAŽETAK

Anthemis tomentosa L. (Asteraceae), nova vrsta hrvatske flore

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Vrsta *Anthemis tomentosa* L. nađena je na najjužnijem rtu Istre, Kamenjaku (UTM VK16) (sl. 1). Tamo ona raste na obali mora, nekoliko metara iznad morske razine, u zoni prskanja mora. Početkom lipnja rasla je u velikom broju primjeraka, bujno cvatući (sl. 2) i kasnije plodonoseći na maloj površini od oko 100 m². Tlo je skeletno i skeletoidno. Iz flornog sastava vegetacije (tab. 1) vidi se da je površina dijelom jače izložena zaslanjivanju pa se ta sastojina može fitocenološki označiti kao asocijacija *Plantagini-Limonietum cancellati* H-ić (snimka 1). Na ostaloj površini salinizacija je manja, što se vidi po većem udjelu mnogih vrsta mediteranskih travnjaka (snimke 2-4).

Prema općoj rasprostranjenosti *Anthemis tomentosa* je eumediteranska vrsta srednjeg i istočnog mediteranskog područja. Nama najbliži lokaliteti su u južnoj Italiji i na Siciliji, pa se novim nalazom upotpunjuje areal te vrste. Uz činjenicu da je to prvi nalaz u Hrvatskoj zanimljivo je da je to zasad ujedno i najsjeverniji poznati lokalitet u okviru areala vrste *Anthemis tomentosa*.

