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Original scientific paper

ARISTOLOCHIA PALLIDA WILLD.  
(ARISTOLOCHIACEAE) IN THE FLORA OF  
CROATIA

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The analysis of morphological characteristics for purposes of differentiation of particular species of the genus *Aristolochia* carried out by Nardi (1984) on the basis of the taxonomic revision of the species of this genus in the South-East Europe has been used to make an analysis of the herbarial material of the *Aristolochia pallida* agg. from different parts of Croatia. It was discovered that along with the species *A. lutea* Desf., which is widely spread in some localities in Croatia, there is also the species *A. pallida* Willd., unjustly and merely due to lack of adequate information has been »eliminated« from the Croatian flora and also from the Flora of Yugoslavia (cf. Nardi 1984, Greuter et al. 1984).

Recently, during the taxonomic revision of the genus *Aristolochia* in the flora of Italy, Nardi (1984) discovered that in reality the name »*Aristolochia pallida*« comprised two species: *A. pallida* Willd. and *A. lutea* Desf.

The most interesting in that is to know that Willdenow described the species *A. pallida* on the basis of two herbarial sources. One originating from Croatia (leg. Kitaibel), the other from Italy (leg. Bellardi). Since in the diagnosis only the material from Italy coincides with the description of the species *A. pallida*, as indicated in the preamble, Nardi (1984: 274—275) thinks that the name *A. pallida* is valid, but that it must be limited only to the western part of the area of the complex researched. More eastwardly spread the forms which are described under the name of *A. lutea* Desf. (= *A. pallida* auct. orient., non Willd.).

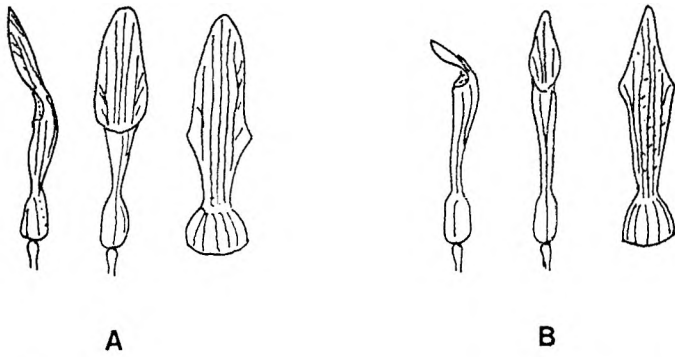


Fig. 1. The flower of the species *Aristolochia pallida* Willd. (A) and *A. lutea* Desf. (B)

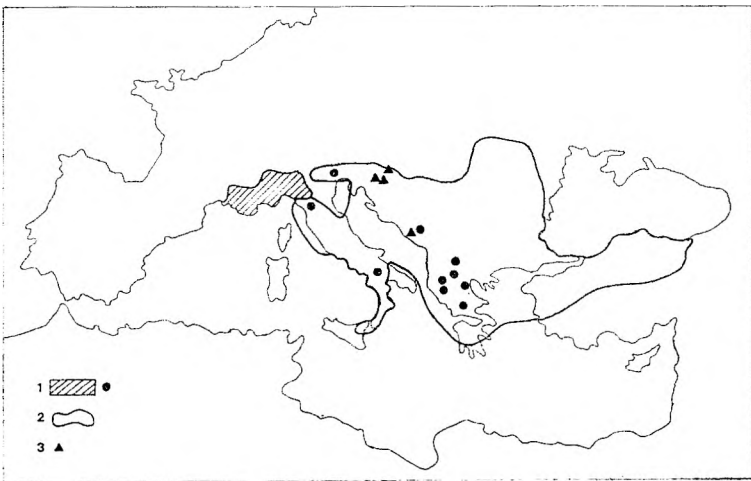
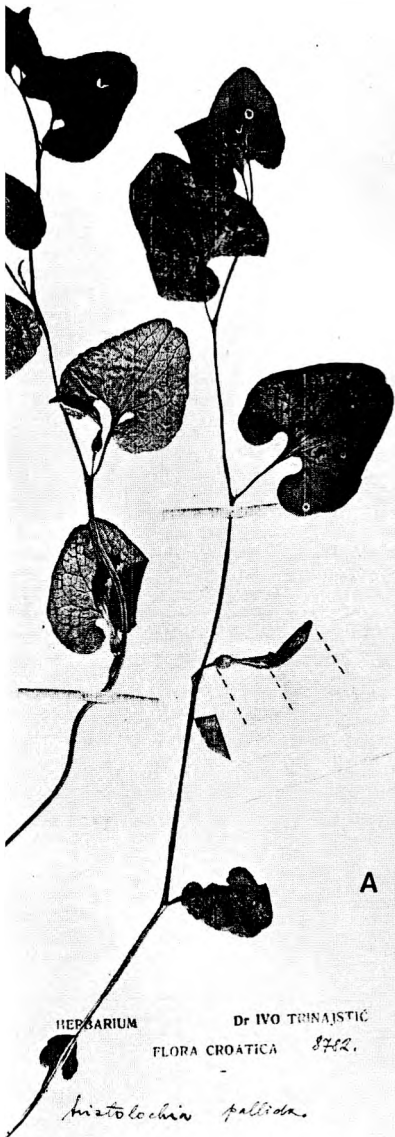
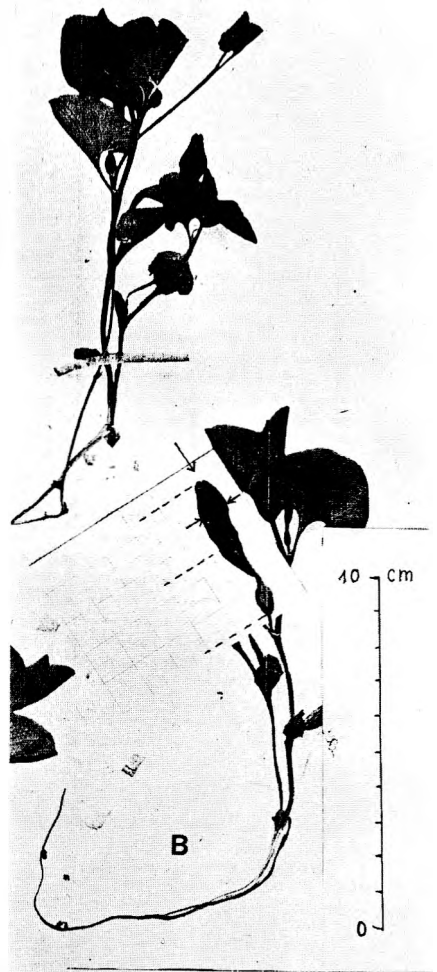


Fig. 2. The general distribution of *Aristolochia pallida* Willd. (1) and *A. lutea* Desf. (2) after Nardi (1984, 1988, 1989), E. Mayer and Greuter (1985) and Nardi and Nesi Nardi (1987) with the localities of *A. pallida* in Croatia (3).



HERBARIUM Dr IVO TRINAJSTIĆ  
FLORA CROATICA 8762.

*Aristolochia pallida*  
Simulov, Dubrovnik - Hercegovina  
5. 1965.



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FLORA CROATICA

*Aristolochia pallida*  
Žrnova Dalmacija, uz cestu ex  
Tombija iznad Dubrovnika  
22. IV. 1975.

Fig. 3. Herbarium-specimens of the species *Aristolochia pallida* Willd. from Croatia (Hrvatska)

The survey of the geographical spread of the species *A. pallida* and *A. lutea* given by Nardi (1984) clearly shows that the species *A. pallida* is completely replaced by the species *A. lutea* both in the Balkans in Yugoslavia. For this reason wherever *A. pallida* was indicated before, its name was simply and automatically changed into *A. lutea*, without any appropriate analysis of the herbarial material. In this sense Greuter et al. (1984) also indicate only the species *A. lutea* for the territory of Yugoslavia, explicitly stating that *A. pallida* is not represented in the flora of Yugoslavia.

With regard to the morphological parameters, the most important differential morphological characteristic would be the relation between the tube and the limb (limbus) of the perigone. In *A. pallida* the perigone tube is approximately equal or a bit shorter than the limb, which is wider than the tube and, at the top, protruded into the edge or obtuse. In *A. lutea* the perigone tube is considerably longer than the limb, which is narrower than the tube and at the top more or less acute or obtuse (Fig. 1).

With regard to the general spread of the species researched, *A. pallida* is limited to the south-west border of the Alps, in the west to Rhone with exclaves in Spain (Siera de Gredos, Nardi 1988) and in the provinces of Toscana and Basilicata (Nardi 1984). According to the latest investigations of Nardi and Nesi Nardi (1987), the species *A. macedonica* Bornm. would also belong to the species *A. pallida*, so its findings in Yugoslavia (Macedonia and Grece /cf. Nardi 1989/) would be the easternmost points of the area of the species *A. pallida*.

*A. lutea* has a more or less homogenous and continuous South-East-European area (cf. Nardi 1984).

Following the results of Nardi's (1984) investigations the herbarial material of the taxon »*Aristolochia pallida*« from different parts of Croatia has been analyzed, thus enabling us to determine that the major part of the material corresponds to the species *A. lutea* Desf., like in Italy, but also with single habitats of the species *A. pallida* Willd., which in Croatia as well as Hercegovina (ecf. E. Mayer and Greuter 1985), and most likely in some other parts of Yugoslavia (for instance in Slovenia) is spread in a markedly disjunctive way, again like in Italy, Spain and Grece (cf. Nardi 1984, 1988, 1989) (Fig. 2).

So far, according to the material available, *A. pallida* is known in Croatia from the following localities:

1. Ozalj (»U šumi kod Kupe blizu Ozlja, 25. lip. 879. — Vukotino-  
vić« — Hb ZA)
2. Klenovnik (»Pred špiljom Dopljanšćicom kod Klenovnika, 26. 4. 1888.  
— D. Hirc« — Hb ZA)
3. Samobor; Ludvić-potok V. 1968. (Hb Dr. Ivo Trinajstić ZA),  
Fig. 3a.
4. Južna Dalmacija, uz cestu za Trebinje iznad Dubravke 22. IV. 1975  
(Hb Dr. Ivo Trinajstić ZA), Fig. 3b.

If we try to analyze the disposition of solitary localities of the species *A. pallida* outside its continuous area, two directions of spreading away from the principal area can be observed. The first direction goes over the ridge of the Appennines (Toscana, Basilicata) and continues further to the Balkan eninsula (Dalmatia, Hercegovina, Macedonia, Grece). The second follows the southern border of the Alps and extends into the Perialpine region of Croatia (Samoborsko gorje, Ivanjšćica). One separated locality is discovered in Spain (Siera de Gredos).

## C o n c l u s i o n

In this study habitats of the species *Aristolochia pallida* Willd. on the territory of Croatia are indicated and, consequently this species also belongs to the flora of Croatia, along with its recently discovered habitats in the flora of Hercegovina and Macedonia.

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## S A D R Ź A J

## ARISTOLOCHIA PALLIDA WILLD. (ARISTOLOCHIACEAE) U FLORI HRVATSKE

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Analizom morfoloških značajki, važnih za diferencijaciju pojedinih vrsta roda *Aristolochia* koje je na temelju taksonomske revizije jugoistočnoevropskih vrsta toga roda istaknuo Nardi (1984), izvršena je analiza herbaskog materijala oblika »*Aristolochia pallida*« agg. iz različitih dijelova Hrvatske. Ustanovljeno je da osim vrste *A. lutea* Desf. (= *A. pallida* auct. croat., non Willd.) koja je u Hrvatskoj široko rasprostranjena, na nekim lokalitetima u Hrvatskoj raste i vrsta *A. pallida* Willd., koja je s nepravom i u pomanjkanju odgovarajućih informacija, bila »elimini-rana« iz hrvatske flore (usp. Nardi 1984, Greuter et al. 1984).

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