

CONTRIBUTIONS TO THE STUDY OF  
*CUSCUTA* VARIETIES FROM SIBIU COUNTY

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**Abstract:**

MARIA TĂNASE, I. BOBEȘ, I. MOLDOVAN, 1998. Contributions to the study of *Cuscuta* varieties from Sibiu county (in English). Not. Bot. Hort. Agrobot. Cluj, XXVIII.

Different varieties of *Cuscuta* represent the most dangerous quarantine weed for the most countries from all the continents. This paper deals with some contributions to the chorology of these varieties in Sibiu county. There have been pointed out 26 new host plants or some rarely found ones. Out of the 13 (5) or 10 (2) species mentioned in Romania, there have been identified 7 species, 2 subspecies and 5 varieties.

**Keywords:** *Cuscuta*, biology, chorology

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*Cuscuta trifolii* Bab. Syn. *Cuscuta epithimum* (L.) Nath. ssp. *trifolii* (Bab) Berger. Annual or perennial,  $2n = 14$ , Euras.

It is mentioned on: *Medicago sativa*, *M. falcata*, *M. lupulina*, *Onobrychis viciifolia*, *Festuca rubra*, *F. rupicola*, *F. pratensis*, *Agrostis tenuis*, *Salvia verticillata*, *Coronilla varia*, *Pimpinella saxifraga*, *Trifolium hybridum*, *Achillea millefolium*, *Galium rubioides*, *Sonchus arvensis*, *Lotus corniculatus*, *Artemisia vulgaris*. Some new host plants are: *Dorycnium pentaphyllum*, *Trisetum flavescens*, *Agropyron repens*, *Apera spica-venti*, *Briza media*, *Arrhenatherum elatius*, *Calamagrostis arundinacea*, *Matricaria perforata*, *Vicia cracca*, *Leontodon autumnalis*, *Linaria vulgaris*, *Cytisus nigricans*, *Thymus glabrescens*, *Linum catharticum*, *Scabiosa ochroleuca*.

*C. trifolii* var *angustissima* (Engelm) Buia.

**Chorology :** Cornișel, Copșa Mică, Tâlmăciu, Avrig, Cârța, Gușterița, Păltiniș, Cislădie, Șura Mare, Săliște, Cristian, Miercurea Sibiului, Agnita, Avrig, Porumbacu, Ruși, Slimnic, Vurpăr, Boița, Armeni, Viile Sibiului.

*Cuscuta epithimum* Murray, Syn. *C. epithimum* (L.) Nath. ssp. *epithimum*. Annual or perenial, Euras.  $2n = 14$ .

It is mentioned on: *Plantago lanceolata*, *Euphorbia cyparissias*, *Lotus corniculatus*, *Galium rubioides*, *Agropyron repens*, *Dactylis glomerata*, *Vicia cracca*, *Festuca rupicola*, *Fagopyrum convulvulus*, *Onobrychis vicifolia*, *Coronilla varia*, *Rhinanthus serotinus*, *Cruciata glabra*, *Chrysanthemum leucanthemum*, *Leontodon autumnalis*, *Taraxacum officinale*, *Linaria vulgaris*, *Mentha arvensis*, *Sonchus arvensis*, *Avena sativa*, *Cytissus nigricans*, *Hypericum perforatum*, *Centaurea nigrescens*, *Galium palustre*, *Teucrium chamaedrys*.

Chorology: Tâlmaci, Paltin, Șura Mare, Bazna, Cârța, Gușterița, Cornățel, Avrig, Slimnic, Seica Mare, Săliște, Orlat, Agârbiciu, Turnișor, Brădeni, Râșinari, Ocna Sibiului, Apoldu de Sus.

*Cuscuta europaea* L. Annual, Euras.  $2n = 14$ .

It is mentioned on: *Aegopodium podagraria*, *Achillea millefolium*, *Cirsium arvense*, *C. lanceolatum*, *Urtica dioica*, *Salix x capraea*, *Rubus caesius*, *Humulus lupulus*, *Salix alba*, *Galeopsis tetrahit*, *Angelica sylvestris*, *Rosa canina*, *Ballota nigra*. Out of the new host plants we mention: *Anthriscus sylvestris*, *Prunus cerassifera*, *Galinsoga parviflora*, *Medicago sativa*, *Artemisia vulgaris*, *Doryenium pentaphyllum*, *Teucrium chamaedrys*, *Filipendula ulmaria*, *Phaseolus vulgaris*.

*C. europaea* L. var. *conocarpa* Engelm. On *Humulus lupulus* and *Cucubalus baccifer*.

*C. europaea* L. var. *nefrens* Fries. On *Urtica dioica* and *Galium aparine*.

*C. europaea* L. var. *viciae* Engelm. On *Lens culinaris* and on *Vicia hirsuta*.

Chorology: Cislădie, Roșia, Copșa Mică, Mediaș, Cornățel, Tâlmaci, Paltin, Cristian, Turnu Roșu, Râul Sadului, Arpașu de Jos, Tilișca, Târnavă, Agnita, Brădeni, Păltiniș, Poplaca, Șura Mare, Armeni, Ruși, Cislădioara, Viile Sibiului.

*Cuscuta campestris* Yunck. Annual, North America,  $2n = 56$ .

It is mentioned on: *Medicago sativa*, *Artemisia vulgaris*, *Convolvulus arvensis*. It is less mentioned on: *Her. Aleum pinnatum*, *Urtica dioica*, *Galeopsis speciosa*, *Galinsoga parviflora*, *Polygonum aviculare*, *Erigeron canadensis*, *Mentha longifolia*, *Polygonum mite*, *Equisetum arvense*, *Galeopsis tetrahit*, *Raphanus raphanistrum*, *Amaranthus retroflexus*.

*C. campestris* Yunck. ssp. *campestris* var. *breviloba* Buia. On *Polygonum aviculare*.

*C. campestris* Yunck. ssp. *pentagona* (Engelm) Buia et. Alex. var. *transilvanica* Buia on *Agropyron repens*, *Rumex obtusifolius*, *Chenopodium album*.

Chorology: Agnita, Dârlos, Copșa Mică, Miercurea Sibiului, Tâlmaci, Avrig, Cristian, Apoldu de Jos, Viile Sibiului, Vurpâr, Turmuni.

*Cuscuta epilinum* Weib. Annual, Euras.  $2n = 42$ .

It is mentioned on: *Limum catharticum* and *Galinsoga parviflora*.

Chorology: Copșa Mică, Dumbrăveni, Mediaș, Brațu.

*Cuscuta monogyna* Vahl. Annual Ponto.-med.

It is mentioned on: *Equisetum arvense*, *Medicago sativa*, *M. falcata*, *Agropyron repens*.

Chorology: Cristian, Sibiu, Gușterița Avrig, Porumbacu, Șelimbăr, Dumbrăveni.

*Cuscuta lupuliformis* Kranck. Annual, Euras. Cont.  $2n = 28$ .

It is mentioned on: *Setaria glauca*, seldom on *Echinochloa crus-galli*, *Equisetum arvense*, *Euphorbia carniolica*, *Sonchus arvensis*, *Medicago falcata*.

Chorology: Cârțișoara, Gușterița, Sibiu, Cristian, Mediaș.

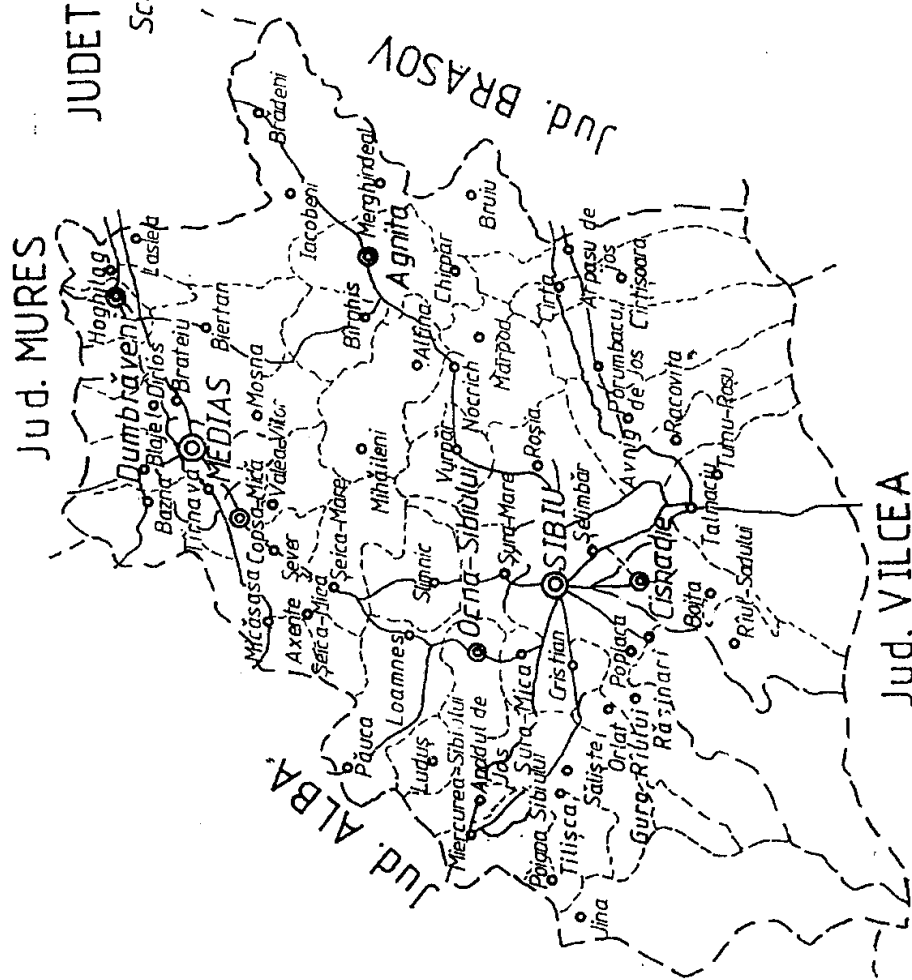
#### Rezumat

MARIA TĂNASE, I. BOBEȘ, I. MOEDOVAN, 1998, **Contribuții la cunoașterea speciilor genului *Cuscuta* din județul Sibiu**. Not. Bot. Hort. Agrobot. Cluj, XXVIII. Cuscutele reprezintă pentru majoritatea țărilor de pe toate continentele, cele mai periculoase buruieni de carantină. În prezenta lucrare se aduc contribuții la corologia acestora în perimetrul județului Sibiu. Se mai aduc contribuții și prin semnalarea unui număr de 26 plante gazdă noi, sau a unora întâlnite mai rar. Dintre cele 13 (5) sau 10 (2) specii menționate în România au fost identificate 7 specii, 2 subspecii și 5 varietăți.

#### References

1. BUIA, AI, 1960, *Cuscutaceae*. Flora R.S.R., vol. VII, Edit. Academiei, București.
2. CIOCÎRLAN, V., 1990, Flora ilustrată a României. Fam. *Cuscutaceae*, T.II, p.138-141. Edit. Ceres, București.
3. \*\*\* Flora R.S.R., 1976, vol. XIII. Edit. Academiei R.S.România.
4. \*\*\* Flora Europaea, 1972, *Convolvulaceae*, vol.3, p.74-76, Cambridge.
5. HĂLĂLĂU, D., M. PĂUN, N. ȘARPE, 1980, Cuscutele din România și combaterea lor. Edit. Ceres, București.

JUDETUL SIBIU  
Scara 1:500000



MORPHO-ANATOMICAL ASPECTS OF  
THE EPIDERM IN TWO SPECIES OF *LATHYRUS*

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Abstract:

IOANA GABOREANU, ADRIANA FLORINCESCU, AURELIA MOLDOVAN, 1998, Morpho-anatomical aspects of the epiderm in two species of *Lathyrus* (in English), Not. Bot. Hort. Agrobot. Cluj, XXVIII.

The paper deals with the microscopic study of the leaves epiderm in *Lathyrus latifolius* L. and *Lathyrus odoratus* L. The transversal sections through the foliar limb shows slight differences between the two faces of the limb and a weak development and differentiation of the mesophyll. The epidermic cells have rectangular or polygonal shapes, with undulated walls with great and medium amplitudes in *Lathyrus latifolius* and medium and small ones in *Lathyrus odoratus*. Stomate apparatus consists of two reniform cells, with two, three, seldom four epidermic cells. *Lathyrus odoratus* has the ranunculaceous anomocytic type of stomate and *Lathyrus latifolius* presents both this type and the ranunculaceous hemiparacytic type.

Keywords: *Lathyrus*, epiderm, stomate.

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Material and method

The biologic material microscopic studied comes from mature individuals of *Lathyrus latifolius* and *Lathyrus odoratus*, Royal Mixed, Zig-Zag and Spencer varieties.

Epidermic preparates were obtained from fresh leaves by epidermic peeling. The samples were colorated and fixed in glycerin-gelatine.

There were cut off some parts from the central-medium zone of the foliar limb in order to obtain transversal sections. The material was fixed in Stieve mixture, colored and sectioned in parts of 7 microns width.

For the examination of the relief of the leaves surface there were prelevated parts of 1 cm<sup>2</sup>, from the central-median zone of the limb, fixed in Stieve mixture and dehydrated. The samples were metalized with copper on both faces and then microscopic studied.