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Novitates florae aegyptiacae

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RÉSUMÉ

Les auteurs décrivent 9 taxons nouveaux pour la flore de l'Egypte: *Amberboa leucantha* Coss., *Amberboa tubuliflora* Murb., *Artemisia scoparia* Waldst. & Kit., *Hedypnois cretica* (L.) Dum. subsp. *tubaeformis* (Ten.) Nyman, *Physanthyllis tetraphylla* (L.) Boiss., *Reseda petrovichiana* Müller-Arg., *Scrophularia canina* L., *Taraxacum minimum* Guss., *Ziziphus lotus* (L.) Desf.

SUMMARY

The authors describe 9 taxa new for the flora of Egypt: *Amberboa leucantha* Coss., *Amberboa tubuliflora* Murb., *Artemisia scoparia* Waldst. & Kit., *Hedypnois cretica* (L.) Dum. subsp. *tubaeformis* (Ten.) Nyman, *Physanthyllis tetraphylla* (L.) Boiss., *Reseda petrovichiana* Müller-Arg., *Scrophularia canina* L., *Taraxacum minimum* Guss., *Ziziphus lotus* (L.) Desf.

ZUSAMMENFASSUNG

Die Verfasser beschreiben 9 Sippen neu für die Flora des Ägyptens: *Amberboa leucantha* Coss., *Amberboa tubuliflora* Murb., *Artemisia scoparia* Waldst. & Kit., *Hedypnois cretica* (L.) Dum. subsp. *tubaeformis* (Ten.) Nyman, *Physanthyllis tetraphylla* (L.) Boiss., *Reseda petrovichiana* Müller-Arg., *Scrophularia canina* L., *Taraxacum minimum* Guss., *Ziziphus lotus* (L.) Desf.

The herbarium material kept in the Faculty of Science Cairo University (CAI) comprises a large amount of precious material collected by various botanists during many years. In spite of the continuous detailed investigation of the Egyptian flora there are still possibilities to find (in nature or preserved in the herbarium) plants not recorded previously from Egypt. The present paper records some species and subspecies not included in Täckholm's "Students' Flora of Egypt". The names of

phytogeographical regions within Egypt are used according to Täckholm (1956). The most interesting material was collected from the Mediterranean coast especially from the region between Mersa Matruh and Sollum.

1. Amberboa leucantha Coss.

Specimina visa. South Sinai: Wadi Tmara by Wadi Feiran, between rocks, 15.4.1937, leg. *Khattab.*
Red Sea coast: Gebel Semiuki, 6.2.1961, leg. *Täckholm, Kassas & al.;* Bir el Sokkari, 4.2.1961, leg. *Täckholm, Kassas & al.;* Wadi Hanqalia, near the gold mines, 4.2.1961, leg. *Täckholm, Kassas & al.*
Gebel Elba: Wadi Haiteem, 27.1.1962, leg. *Täckholm, Kassas & al.*

Due to its pappus colour and its leaf shape *Amberboa leucantha* can be easily distinguished from other *Amberboa* species in Egypt. The leaves are entire to pinnatifid and pappus is purple couloured. The species has its main range of distribution within central and northern Sahara and it is supposed to be a Saharan endemic (Quézel & Santa 1963). In Egypt it occurs along the Red Sea coast and in the southern part of the Sinai Penninsula which localities represent its eastern limit of distribution. Moreover, the Sinai locality is its first record for the Asiatic continent.

2. Amberboa tubuliflora Murb.

Specimina visa. Marmarica: Mariut 25.3.1949, leg. *Täckholm;* Mersa Matruh, sine dato, leg. *Täckholm;* Bir Romadi west of Mersa Matruh, 10.3.1969, leg. *Täckholm;* along the coastal road 46 km east of Mersa Matruh, 3.5.1966, leg. *Täckholm;* Ras el Hekma, 2.5.1955 and 15.3.1958, leg. *Täckholm;* Fuka, 1.5.1955, leg. *Täckholm;* Abu Menas near Bahig, 8.3.1964, leg. *Täckholm.*

The species was described for the first time from Morocco by Murbeck (1897). Material collected and determined by Murbeck was present in CAI and made the identification easier. The Egyptian plants from Marmarica proved to be identical with those from Morocco. The species *A. tubuliflora* is closely related to *A. lippii* (L.) DC. in a morphological sense. But in spite of their rather similar habitus Egyptian material of *A. tubuliflora* shows differences in growth form, colour of flowers and in the size of heads and achenes. *A. tubuliflora* is usually more robust having pink flowers and slightly larger heads and achenes. *A. lippii* has blue flowers which is the main feature for distinguishing this species from *A. tubuliflora.* The change of flower colour, from blue to pink, however, has to be taken into consideration when identifying dry material of *A. lippii.* Within the Egyptian territory the area of distribution of both taxa may be of help in identification.

It seems quite clear that *A. tubuliflora* is limited only to the western Mediterranean region whereas *A. lippii* is restricted to the eastern part mainly to the Isthmic

desert and the northern part of Arabic desert. There is another species of *Amberboa* also growing along the Mediterranean coast and having one isolated locality in North Sinai. It is *A. crupinoides* (Desf.) DC. with outer florets blue and inner florets orange yellow. Another important feature for separating *A. crupinoides* from *A. tubuliflora* is the black-tipped involucral-scales in the former species.

3. Artemisia scoparia Waldst. & Kit.

Specimina visa. Marmarica: Sidi Gaber, Alexandria, 16.8.1908, leg. *Maire.*
Isthmic desert: Sinai, Sadd Raufa, 15.8.-8.9.1951, leg. *Kassas, Täckholm, Tadros.*

This is one of the species whose way of migration into the Mediterranean area we could trace. No doubt it has came from the east and its Egyptian localities are the west limit of its distribution in Africa. The Egyptian material is identical with that from Iraq, Ukraina and Kazachstan.

4. Hedypnois cretica (L.) Dum. subsp. **tubaeformis** (Ten.) Nyman

Specimina visa. Marmarica: Mariut, spring 1964, leg. *Ahmed Foua Afifi;* between Burg el Arab and El Alamein, 24.3.1961, leg. *Mohamed El Monayri Mohamed Osh;* Burg el Arab, 17.2.1965, leg. *Täckholm.*

The only species of the genus *Hedypnois* which is mentioned by Täckholm (1956) is *Hedypnois rhagadioloides* (L.) F. W. Schmidt (without any subspecies or varietas). The taxon is common in the whole Mediterranean region and the Isthmic desert. Its correct name according to the nomenclature is *Hedypnois cretica* (L.) Dum. *H. cretica* comprises a very difficult complex of taxa. Hayek (1931) divided it into three subspecies: subsp. *monspeliensis,* subsp. *cretica,* subsp. *tubaeformis.* Greuter & Rechinger (1967) accepted his subdivision with some nomenclatoral changes. The species *Hedypnois cretica* (L.) Dum. shows great variability in habitus e.g. in the character of the stem and peduncle. Thus subsp. *cretica* has a club-shaped peduncle; subsp. *monspeliensis* Murb. when compared with the latter one has more slender stem and less thickened peduncles. The third subspecies subsp. *tubaeformis* (Ten.) Nyman differs from both the above mentioned subspecies in its strikingly robust habit and extremely thickened peduncles. When studying the Egyptian material of *H. cretica* we could distinguish clearly two types: one robust with much thickened peduncles and one nonrobust with only club-shaped peduncles. It is obvious that there are two different subspecies of *H. cretica* in Egypt, viz. subsp. *cretica* and subsp. *tubaeformis* which are both recorded from the western part of Marmarica. The third subspecies *monspeliensis* most probably may be found within the same territory but the present material is not quite sufficient for us to settle this for sure. Typical plants of the subsp. *monspeliensis* are growing in Libya and west African Mediterranean region. From the taxonomical point of

view subsp. *tubaeformis* can easily be recognized by its peculiar habit. The two other subspecies subsp. *monspeliensis* and subsp. *cretica* are less clear and need further investigation.

Boulos (1959) reported *Hedypnois rhagadioloides* (L.) F. W. Schmidt subsp. *tubiformis* (Ten.) Dinsm. from the vicinity of Ghaza (Palestine, cf. also Post & Dinsmore 1933). The same taxon is also known from Libya (Pampanini 1931).

5. Physanthyllis tetraphylla (L.) Boiss.

Specimina visa. Marmarica: Wadi Sheikh Fayez at Umm el Rakham, west of Mersa Matruh, 11.3.1969, leg. *Dahlgren.*

This species which is well known from Palestine and Libya can be easily recognized. Its presence in the whole Mediterranean region is only natural and expected.

6. Reseda petrovichiana Müller-Arg.

Specimina visa. Marmarica: 105 km east of Mersa Matruh, along the seaside road, 16.2.1965, leg. *Täckholm, Ibrahim, Mahdi.*

The record of thie rare species from Libya is a very remarkable one. The plant was found only once in Egypt, but the material is sufficient and well corresponds to the description and illustration of *Reseda petrovichiana* in Durand & Barratte (1910). These authors characterized the species to be: "Espèce spéciale à la Cyrénaïque." (l.c.: 27). The Egyptian record represents an isolated locality relatively far from Cyrenaica. Further botanical survey of the western part of Marmarica may show whether this locality is an exceptional one or whether it belongs to a continuous, up till now unknown area of distribution of this species.

7. Scrophularia canina L.

Specimina visa. Marmarica: 2 km east of Sollum 25.5.1963, leg. *Täckholm & al.:* 10 km east of Sollum, 26.5.1963, leg. *Täckholm & al.*

Egyptian and also Libyan material (collected and determined by L. Boulos) seems to be homogeneous, but it differs in many respects from the Middle-European material. The North African material has pinnatisect leaves with much broader segments. Greuter (in Greuter & Rechinger 1967) mentiones a south-eastern Europaean subspecies, *S. canina* subsp. *bicolor* (Sm.) Greuter, growing in Greece. When comparing the illustration of *S. bicolor* Sm. (cf. Sibthorp 1830) with the Egyptian

material, the latter one proved to be different, mainly as for the shape of the leaves. Also *S. canina* subsp. *floribunda* (Boiss. & Bal.) Rech. fil. known from the Aegean territory and from Anatolia, is not identical. On the contrary, its short stems clearly distinguish our material from the above mentioned subspecies. It seems that the North African populations of *S. canina* represent a new subspecies not yet described in literature.

8. Taraxacum minimum Guss.

Specimina visa. Marmarica: In the ruins of Abu Sir, 15.2.1965, leg. *Täckholm.*

Up till now this is the only record of a *Taraxacum* in Egypt. Most probably this species is a synonym of *T. megalorhizon* (Forssk.) Hand.-Mazz.

9. Ziziphus lotus (L.) Desf.

Specimina visa. Marmarica: Sollum town, 24.5.1963, leg. *Täckholm & al.;* 5 km east of Sollum, 25.3.1963, leg. *Täckholm & al.;* 10 km east of Sollum, 29.9.1963, leg. *Boulos;* Sollum, 5 miles east on plateau, sandy area, 21.10.1965, leg. *Osborn & Helmy;* Sollum 6 miles south, sandy area on plateau, 21.10.1965, leg. *Osborn & Helmy.*

The species is widely distributed over the large area of the Mediterranean basin, extending eastward to Palestine (Eig 1931). There was no evidence, however, of its continuous distribution along the Egyptian Mediterranean coast until 1963. It is not surprising then that so many localities were found recently by various collectors who herborized around Sollum.

Corti (1942) for example distinguished two subspecies: subsp. *eulotus* with glabrous leaves and subsp. *saharae* (Batt.) Maire with pubescent leaves. All specimens we have seen from Egypt were glabrous and therefore belong to the nominate subsp. *lotus.* The other species growing in Egypt viz. *Ziziphus spina christi* (L.) Willd. differs from *Z. lotus* in the size of the leaves and in its growth form. The former is usually a tall tree with well developed trunk and larger leaves, the latter is a zigzag branched shrub with small leaves.

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REFERENCES

Boulos, L. (1959) *A contribution to the flora of Gaza zone.* Ministry of Agriculture, Egypt. Cairo.

Corti, R. (1942) *Flora e vegetazione del Fezzan e della regione di Gat.* Atti Reale Accad. Georgof. Firenze.

Durand, E. & G. Barratte (1910) *Florae Libycae Prodromus.* Genève.

Eig, A. (1931) Les éléments et les groupes phytogéographiques auxiliaires dans la flore palestinienne. *Feddes Repert.* 63: 201.

Greuter, W. & K. H. Rechinger (1967) Flora der Insel Kythere. *Boissiera* 13.

Hayek, A. (1931) *Prodromus Florae Penninsulae Balcanicae* 2. Berlin-Dahlem.

Murbeck, S. (1897) *Contributions à la connaissance de la flore du nord-ouest de l'Afrique...* I. Lund.

Pampanini, R. (1931) *Prodromo della flora Cirenaica.* Forli.

Quézel, P. & S. Santa (1963) *Nouvelle flore de l'Algérie* 2. Paris.

Sibthorp, J. (1830) *Flora Graeca* 7. Londini.

Täckholm, V. (1956) *Students' Flora of Egypt.* Cairo.

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