

New Species of Heliotropium muricatum (Boraginaceae) Indemic from Iraq.

Yass K. Abbas¹

Bassam M.Shamkhy²

¹College of Education- University of Thi-Qar

²Thi-qar Ceneral directorate of Education

Absract

A new endemic species . Helitropium muricatum Abbas Sp. Nov is deseribed from Iraq.

During the previous treatment of the genus Heliotropium L. in Iraq .both fresh and herbarum speeies were examined thorough the course of study. In the recent treatment found anew species after many visit. Anew treatment for this species which had been on 2005 after precise study we discover new characters of this species. The description of this species as follow:- H.muricatum Abbas sp.nov Sect.Heliotropium 1.

Planta annua, muricatus, habitu integer variabilis 15-19cm.Longa, Coulis srectus 18 x04 m, Plerumque basi divaricato ramosissimus, setuils brevibus appressiulis, praetera longioribus paucissimis hispidulus. Folia amina longiuscle petiolata, usque ad 25-40 mm. longa, 18-36 mm. lata sed plerumque minor, ovato-ellipta, aut setulis brevissimis laxiuscule obsita, viridian, tomentosa, canescentia, apice obtuse vel prominentibus, margine integro, plano. Inflorescentiae simplices vel binae densiuscule scrpioideae, 4.5 x0.3 cm, inflores – centia petiolata 0.4 x 0.11 cm. calyces sessiles 1.6 mm. longi, laciniss 5 lieari-landeolatis acutiusculis appressiuscule longe pilosis canescentibus, perstentes. corolla calyce vix sesquilogior, 2x1.4mm. longa, tube cylindraceo, extra longiuscule stringose intus glabro, limbo tubo duplo triplove brevior lobis 5 suborbicularibum vel subovatis rotundatis prime suberactis, dein patulis, aestivations imbricates , Antherae medium tubum sitae, a basi ad apicem stylo 0.2x0.2mm. Nuculae 1.5x2.1 mm ovalae, grosse regulosae, glabrae.

Type (Iraq FKI) 3K. North of Kirkuk, hilly area, sandy soil, 400m alt. 30.7.1990 (holo BuH)

Annual, muricate, branched from base and hence plant often apparently multicaulescent, densely covered with short and long hairs,leaves petiolate, lamina elliptic-ovate, apex obtuse to roundish, the base attenuate to truncate, margins entire, nerves on the upper surface inconspicuous, raised and prominents below. Inflorescences scorpioid, uniseriate or biseriate flowers. Calyx persistent, sessile, lobes linear-lanceolate, acuminate, covered with long cansecant trichomes. Corolla subroundish , erect and becomes spreading. Another sessile, inserted in middle of corolla-tube, gradually narrowed towards the acute apex. Stigma conical, glabrous. Style very short.Nutlets ovoid, grossly rugulose, glabrous.

H.muricatum is smaller to H.lasiocarpum but differs in its dark brown and quite glabrous nutlets, 1.3-1.6x2-2-.3 mm. in diameter. Corolla is smaller in size 1.4x2.7 mm. long. Anther is smaller and shorter in size 0.7x1 mm. Stigma is shorter and wider in size 07-1.5 mm. whereas the nutlets in H.lasiocarpum are light brown and densely hairy, 1.4-1.7x0.9-1.3mm. in diameter. Corolla is 2-2.2mm long. Anther is 0.8-1.1 mm. long. Stigma is 0.8-1.4 mm. long. in addition to the above characteristics, haploid chromosome number of H.muricatum was found 32. but in H.lasiocarpum 21. Moreover, variations are found in pollen grains, flowering period, ecological characteristics and geographical distribution, where H.muricatum has

been found in a limited area 3 K. north of kirkuk while **H.lasiocarpum** is spread in most of the districts of iraq . in addition **H. muricatum** has scentless flower, while **H.lasiocarpum** has fragrance.

References

Abbas, Y.K, Al-musawi, A.H.and Al-Attar, A.A(1993)A new species and two hybrids of **Heliotropium** .(Boraginaceae) from iraq. Basrah j. Science, Vol. 11 No. 1:81-i5.

Boissier,E.(1879) Flora orientalis, Genevae et basileae Apud H. George Bibliopolam lugduni. Vol.4:125-148.

Riedle.H.(1967) **Heliotropium** L., in Rechinager, K. H. Flora Iranica. 48 Akademische Druch-Verlagsantel, Graz-Austria, 9-52.

