A NEW SPECIES OF ACANTHOPHYLLUM (CARYOPHYLLACEAE) FROM IRAN

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Acanthophyllum crassinodum, sp. nova, is described from the Kopet Dagh region of NE. Iran and is contrasted with A. glandulosum, its closest relative in sect. Pleiosperma Boiss.

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Acanthophyllum crassinodum (Caryophyllaceae) is a new species described from the Kopet Dagh region of NE. Iran. It is contrasted with its closest relative, A. glandulosum, in the sect. Pleiosperma Boiss.
In 1973 a collection of herbarium material was made by J. R. Edmondson, then at the University of Leicester, during a botanical expedition to NE. Iran. In Tandureh National Park, a wildlife reserve near Darreh Gaz (Khorasan province) which covers part of the botanically rich Kopet Dagh range of mountains, specimens of Acanthophyllum were collected that could not be readily identified. Material was sent to D. Kh. Yukhananov, who concluded from a study of the species of sect. Pleiosperma from Iran and neighbouring countries that none was identical with the newly discovered plant; we therefore describe it here as a new species.

The species was discovered in a limited area on the north side of one of the ranges comprising the Kopet Dagh, in a district which has not hitherto been botanized intensively. The zone close to the road from Ashkhabad to Quchan has been explored by a number of botanists, including Czernjakowskaya, Schmid and Rechinger. The latter also made an important collection on the Kuh-e Allah Akbar, which lies to the east of the area which now forms Tandureh National Park, where the road to Darreh Gaz crosses the most northerly major ridge. The rather inaccessible area in between these two roads appears to have remained unexplored, but its designation as a conservation area offers greatly improved opportunities for future botanical studies. Its vegetation consists mainly of dry steppe at lower levels, with Artemisia and Alhagi as the leading species; thorn-cushion groups (Astragalus, Acantholimon, Acanthophyllum) are frequent at higher altitudes. Scattered bushes and small trees of Juniperus excelsa occur mainly above 1800 m.

Acanthophyllum crassinodum Yukhananov et Edmondson, sp. nova (Sect. Pleiosperma Boiss.).

Description. Suffrutex 15–20 cm altus, ad basim paulo ramosus, pilis parvis simplicibus et glandulosis haud dense tectus. Caules crassi, inter nodos c. 2 mm diametro vel crassior, ad nodos valde incrassati, internodiis (0.8–)1–1.5 cm longis. Folia patentia, superiorea oblique sursum directa, aculeiformis-spinescentia, (2.5–)3.5–4.5(–5) cm longa, 1–1.5 mm lata, supra canaliculata, subtus convexa, axillis ramis stel- libus abbreviatis. Inflorescentia terminalis, 1.5–2 cm lata, corymboso-capitata; flores sessiles, congesti. Bracteae calyce sesquilongiores, lanceolatae vel anguste oblonga, carinatae, spinescentes, ad marginem anguste paleaceae; bracteolae calycem aequantes vel sub duplicated. Calyx campanulato-cylindricus, 8–9 mm longus, ad 1/4 incusis. Petala rosea, spathulata, calyce subduplo longiora. Ovarium 12-ovulatum. Stamina calycem duplo superantia. Floret Jun.–Jul.

Iran, prov. Khorasan: 30 km WSW. Darreh Gaz; in declivibus lapidosis c. 5 km SW. Chehelmehr prope semitam ad Chesmeh-ye Shekerab ducens, 37° 52’ lat. bor., 59° 00’ long. orient., alt. 1400 m, 11 vii 1973, leg. J. R. Edmondson 1310 (holotypus LE, isotypus E).

Diagnose. A glandulosus Bunge ex Boiss. proxima est, sed caulibus ad basim paulo ramosis, crassis, nodis valde incrassatis, pilibus simplicibus glandulosisque non dense puberulis, folis longioribus, minus divergentibus, calyce longiore, petals calyce subduplo longioribus necnon staminibus calycem duplo superantibus differt.
Fig. 1. *Acanthophyllum crassinodum*. – A. Habit (x 0.7). – B. Bract (x 4). – C. Calyx (x 3.3). – D. Flower with bracteoles (x 2.7). – E. Petal (x 4.7). – F. Capsule (x 5.3).
long as the calyx. Flowers in June to July.

Iran, prov. Khorasan: 30 km WSW. of Darreh Gaz, on stony slopes about 5 km SW. of Chehelmehr near the track leading to Cheshmieh-ye Shekerab, 37° 52' N., 59° 00' E., alt. 1400 m, 11th June 1973, collected by J. R. Edmondson 1310 (holotype LE, isotype E).

Close to A. glandulosum, but stem little-branched at the base, robust, distinctly swollen at the nodes, sparsely glandular- and simple-hairy, leaves longer, up to 4.5(-5) cm (in A. glandulosum up to 3 cm), the upper directed obliquely upwards, calyx longer, petals almost twice as long as the calyx, stamens twice as long as the calyx.

The new species can be allocated to sect. Pleiosperma not only on account of its close overall resemblance to the other members of the section, but also on the basis of its ovule number. It is easily distinguished from A. sordidum Bunge ex Boiss., which has very short retuse petals.

A comparative study of the stem anatomy of A. crassinodum and of A. glandulosum revealed differences in the relative thickness of the primary xylem and the central cylinder. In the former, the primary xylem is thicker and becomes less hardened; in the latter, the central cylinder is thicker.

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