Status of *Dianthus* L. collection in the herbarium of Agricultural university – Plovdiv (SOA)

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Summary. The status of the digitized part of *Dianthus* L. collection was discussed. The data were compared to the existing data of the recent floristic literature in Bulgaria. The collection distribution was displayed using chorological maps.

The herbarium of Agricultural University (SOA) unites the herbar collections of the former Higher Agricultural Institute – Sofia and Agricultural University – Plovdiv. Since 1975 г. it have been moved to Agricultural University – Plovdiv [10]. Now the herbarium consists about 150 000 samples of vascular plants. The digitalisation of the type specimens and specimens after 1948 started in 2006 (Stoyanov 2009). The reliability of the digitized data have to be valued by comparison with the chorological data from the literature. The collection of SOA contains a big amount of *Dianthus* specimens.

Genus *Dianthus* L. is represented in Bulgaria by 27 species and 26 subspecies [2]. In the Red Data book are included 5 taxa (*Dianthus drenowskyanus* Rech. fil., *Dianthus nardiformis* Janka, *Dianthus pallidiflorus* Ser., *Dianthus pontederae* A. Kern. subsp. *kladovanus* (Deg.) Stoj. & Stef., *Dianthus simulans* Stoj. & Stef., *Dianthus stribrnyi* Velen.). They, together with *D. carthusianorum* L., *D. stribrnyi* Velen. are *D. microlepis* are included in The Red list of Bulgarian vascular plants [12]. *Dianthus drenowskyanus* is endemic for Balkan Peninsula, *D. urumoffii* – is endemic for Bulgaria [11], and *D. nardiformis* has limited distribution [9].

The chorological data of the collection are databased in UTM-grid coordinates [7] and mapped using dSOA software [13]. The maps contain information for the floristic regions [6] numbered as: Black Sea coast (1), Notheast Bulgaria (2), Danube plain (3), Balkan Foothill (4), Stara Planina Mts. (5), Sofia region (6), Znepole region (7), Vitosha region (8), West Frontier Mountains (9), Strouma Valley (10), Belasitsa (11), Slavyanka (12), Mesta Valley (13), Pirin Mts. (14), Rila Mountain (15), Sredna Gora (16), Rhodopi Mts. (17), Tracian lowland (18), Toundja Hilly lowland (19) и and Strandja Mountain (20). The subregions are signed with letters: w- west, s- south, n- north, c- center. The database was compared to the chorological maps and the recent floristic data [1,2,3,4,5,8,9,11]. The consequent results are represented in Table 1.

The total count of digitized speces is 20. The genus is represented by 256 records. Two lectotypes are stored – *D. simulans* Stoj. &Acht. (15099, typified by D. Delipavlov) and *D. urumofii* Stoj & Acht.(3594 sub *D. urumovianus*, typified by D.Delipavlov). The both taxa have not specimens deposited after 1948.

Dianthus armeria is represented by the both subspecies, as the specimens of subsp. *armeriastrum* are from one locality. The collections consist some materials of species with unreported localities. Species like this are *D. campestris* – from 5c, 16w and 17, *D. cruentus* – region 3, *D. nardiformis* – regions 17c and 18, *D. pelviformis* – region 17e. The wrong data are caused by the lack of revision notes in the bigger part of the herbar sheets.

The collection represents 84 squares of the 10x10 km UTM grid. They cover 7% of the territory, or 16% of all digitized localities. The predominant specimens are from the southern and eastern part of the country. The most intensive years of collecting have been: 1963 (11.3%), 1964 (8.5%), 1951 (7.4%), 1957 (5.8%).

The overview of the digitized samples demonstrates that the documentation of genus *Dianthus* needs to be actualized. The data of the revisions and from literature records have to be added to the herbar records of this genus.

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Таблица 1. Digitized materials of Dianthus in SOA

taxon	data from the literature (regions)	herbar data (regions)	count	Fig.
*D. armeria*L. subsp. *armeria*	whole country	1s, 5c, 5e, 15, 17w, 18,19	26	1-a
D. armeria L. subsp. *armeriastrum* (Wolffner) Velen.	whole country	3	3	1-b
D. barbatus L.	5w, 5c, 8, 15	5c, 8, 15	9	2-a
D. campestris Bieb.	1,3,10,11,18,19	5c, 10s, 12, 16w, 17, 18, 19	29	2-b
D. corymbosus	whole country	17e, 18, 19	9	3-a
D. cruentus Griseb. (sub *D. sanguineus* Vis.)	5w, 5c, 6, 7, 8, 9, 12, 14, 15, 17, 18	3	1	3-d
D. deltoides L.	5w, 9, 15, 17w, 17c	15, 17w, 17c	8	3-c
D. giganteus D'Urv	1, 2, 3, 5w, 5c, 15, 16w, 17w, 17c, 18	1s, 2, 5c, 17w, 17c, 18, 19	31	4-a
D. kitaibelii Janka	5c, 5w, 7, 12	12, 17c	5	5-d
D. nardiformis Janka	1, 2, 3	17c, 18	5	4-b
D. pallens Sibth. & Sm.	1, 2, 3, 5e, 10, 17c, 17e, 18, 20	1, 10s, 17c, 18, 19	42	4-c
D. pelviformis Heuffel	7, 8, 10, 14, 15	17e	2	4-d
D. petraeus Waldst. & Kit.	5, 11, 12, 14, 15, 17	4e, 5c, 5e, 11, 12, 14n, 17c	21	5-a
D. pinifolius Sm.	5c, 5e, 9, 11, 14, 15, 16w, 17, 18, 19	5c, 9, 16w, 17w, 17e, 18, 19	25	5-c
D. pontederae A.Kerner	1, 3	1n	1	5-c
D. pseudarmeria Bieb.	2, 3, 5c, 5e, 8, 16, 17c, 18	2, 17w, 19	6	1-c
D. simulans Stoj. & Stef.	12	12 (lectotypus)	2	1-d
D. superbus L.	2, 5, 6, 8, 12, 15, 16, 17	5c, 17w, 17c	10	1-e
D. trifasciculatus Kit.	2, 3, 8	10s	1	2-d
D. tristis Velen.	5w, 8, 9, 14, 15, 17	8	1	3-e
D. urumoffii Stoj. & Acht.	6, 8	6 (lectotypus)	1	2-c

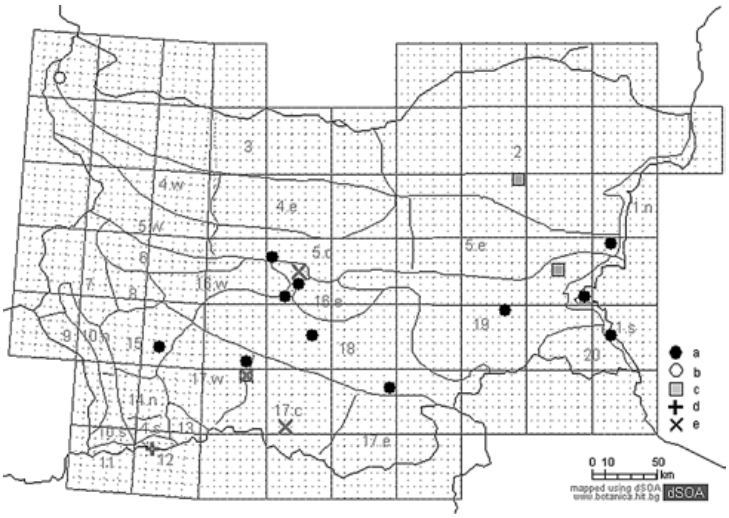

Fig. 1. *Dianthus armeria* (a,b) – subsp. *armeria* (a), subsp.*armeriastrum* (b), *D. pseudarmeria* (c), *D. simulans* (d), *D. superbus* (e)

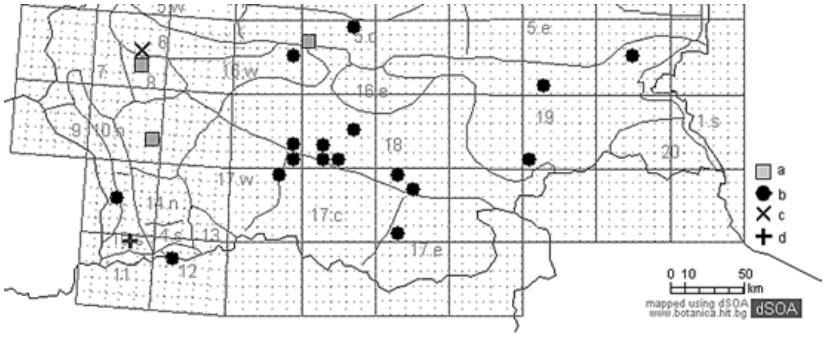

Fig. 2. *Dianthus barbatus* (a), *D. campestris* (b), *D. urumoffii* (c), *D. trifasciculatus* (d)

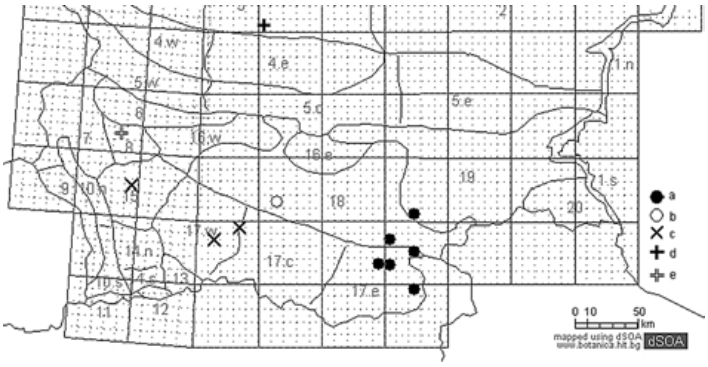

Fig. 3. *Dianthus corymbosus* (a, b- f. *tenuiflorus*), *D. deltoides* (c), *D. cruentus* (d), *D. tristis* (e)

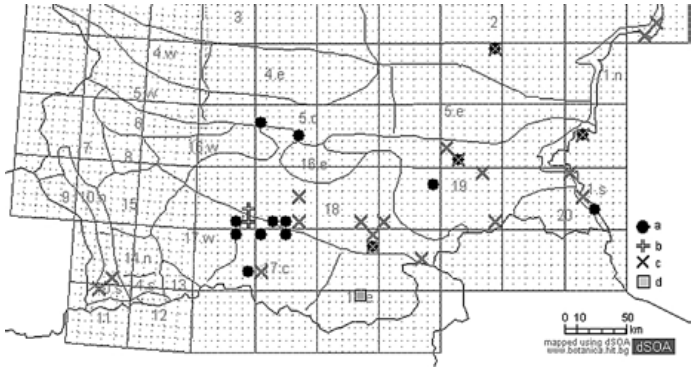

Fig. 4. *Dianthus giganteus* (a), *D. nardiformis* (b), *D. pallens* (c), *D. pelviformis* (d)

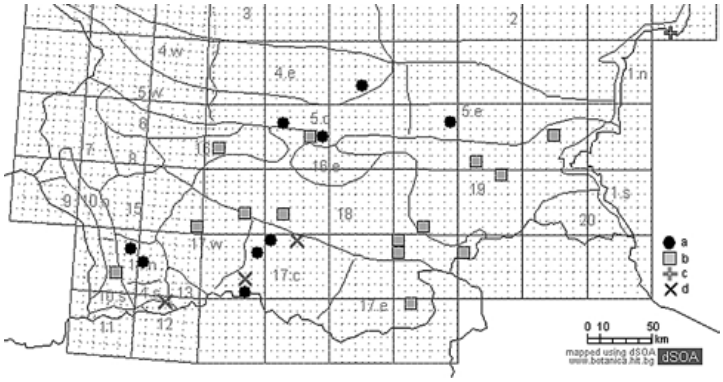

Fig. 5. *Dianthus petraeus* (a), *D. pinifolius* (b), *D. pontederae* (c), *D. kitaibelii* (d)