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## New records of *Artemisia quinqueloba* and *A. albicerata* (Asteraceae) from China

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**Abstract.** Two species of the genus *Artemisia*, i.e. *A. quinqueloba* Trautv. and *A. albicerata* Krasch., which were considered earlier as endemic to the desert zone of Kazakhstan are firstly recorded in western China. Habitat and morphology of both species are illustrated. A key including these two species new for the flora of China, and four other similar species belonging to the series *Psammophilae* Poljak. is provided.

**Key words:** new records, western China, Xinjiang, *Artemisia*.

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*Artemisia* L. is a big genus of the tribe *Anthemideae* Cass. (Asteraceae), and contain about 350–500 species (Ling et al., 2011; Jiao et al., 2019). The present taxonomy of *Artemisia* is complicated and far from clear. In the past ten years, we have conducted extensive field investigations in the world to understand its diversity and distribution (e.g. Jiao et al., 2019). Currently, seven species of the series *Psammophilae* Poljak. are recorded in Xinjiang, China. They are *A. sphaerocephala* Krasch., *A. ordosica* Krasch., *A. halodendron* Turcz. ex Besser, *A. campestris* L., *A. saposchnikovii* Krasch. ex Poljak., *A. songarica* Schrenk ex Fisch. et C.A. Mey., *A. marschalliana* Spreng. (Ling, 1991; An et al., 1999). The series *Psammophilae* is distinguished from the rest of the genus by the following characters: shrub or semi-shrub life form, long-petiolate lower cauline leaves, divided into 3–7 lobes or pinnate, lobes longer (Poljakov, 1961).

In 2018, during the field investigations, two more *Artemisia* species new for the flora of Xinjiang, – *A. quinqueloba* Trautv. and *A. albicerata* Krasch. were discovered. Besides, herbarium materials from the collections of PE and MW were checked. Both species are the members of the series *Psammophilae*

(Poljakov, 1961; Ling, 1992) and usually regarded to be endemic to desert zone of Kazakhstan (Poljakov, 1961; Filatova, 1966).

The aim of the present paper is to report our new discoveries of both species, which are firstly recorded in Xinjiang, western China.

*Artemisia quinqueloba* Trautv., 1866, Bull. Soc. Imp. Naturalistes Moscou, 39(1): 348. Described from sands of Sarysu River, Kazakhstan (type in LE).

**Ecology:** sands along rivers and lakes.

**General distribution:** Kazakhstan (Aralo-Caspian Region, and Lake Balkhash Region), China (northern Xinjiang).

**New record:** Xinjiang, China: Burqin County, sands along the Ertix River, N 47°41', E 86°51', alt. 446 m. 27 VIII 2018. J.Y. Zheng, XH185 (PE) (Figure 1).

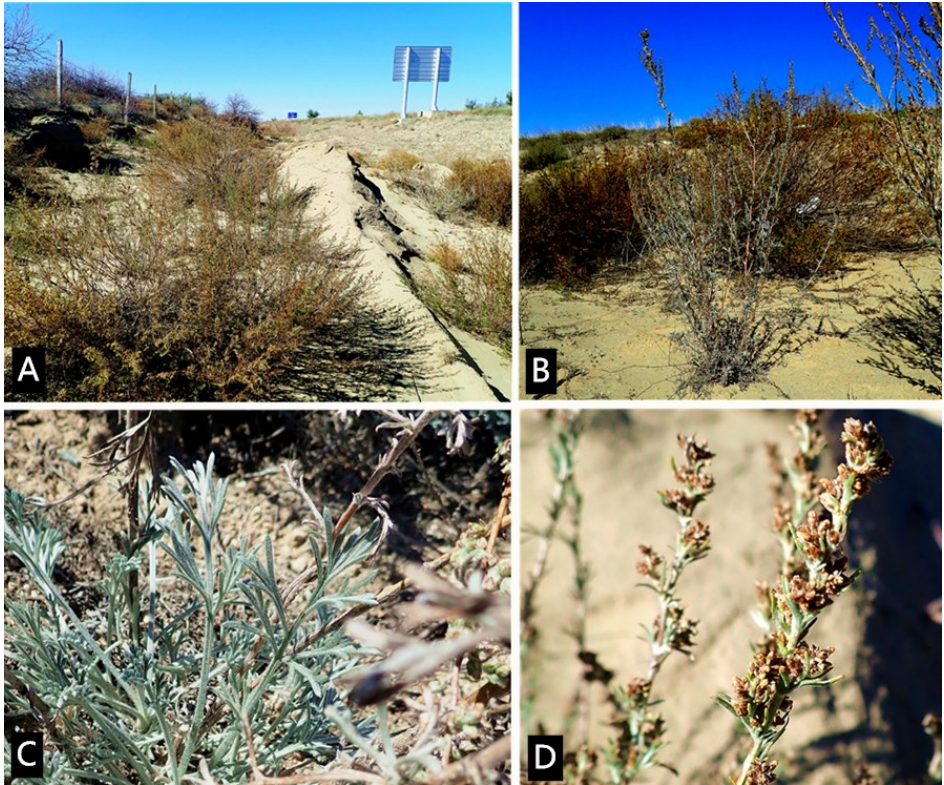


Figure 1. Habitat and morphology of *Artemisia quinqueloba* Trautv. from Xinjiang, China. Photo by J.Y. Zheng

A – habitat; B – individual in flowering; C – leaves; D– synflorescence

*Artemisia albicerata* Krasch., 1946, Bot. Mat. Gerb. Bot. Inst. Akad. Nauk SSSR, 9: 173. Described from Kazakhstan, Ili River valley (type in LE).

**Ecology:** sands and sandy river beds.

**General distribution:** Kazakhstan (Lake Balkhash Region), China (western Xinjiang).

**New record:** Xinjiang, China: Baicheng County, river beds of Baicheng County, N 41°47', E 81°50', alt. 1196 m. 15 X 2018. J.Y. Zheng, XH264 (PE) (Figure 2).

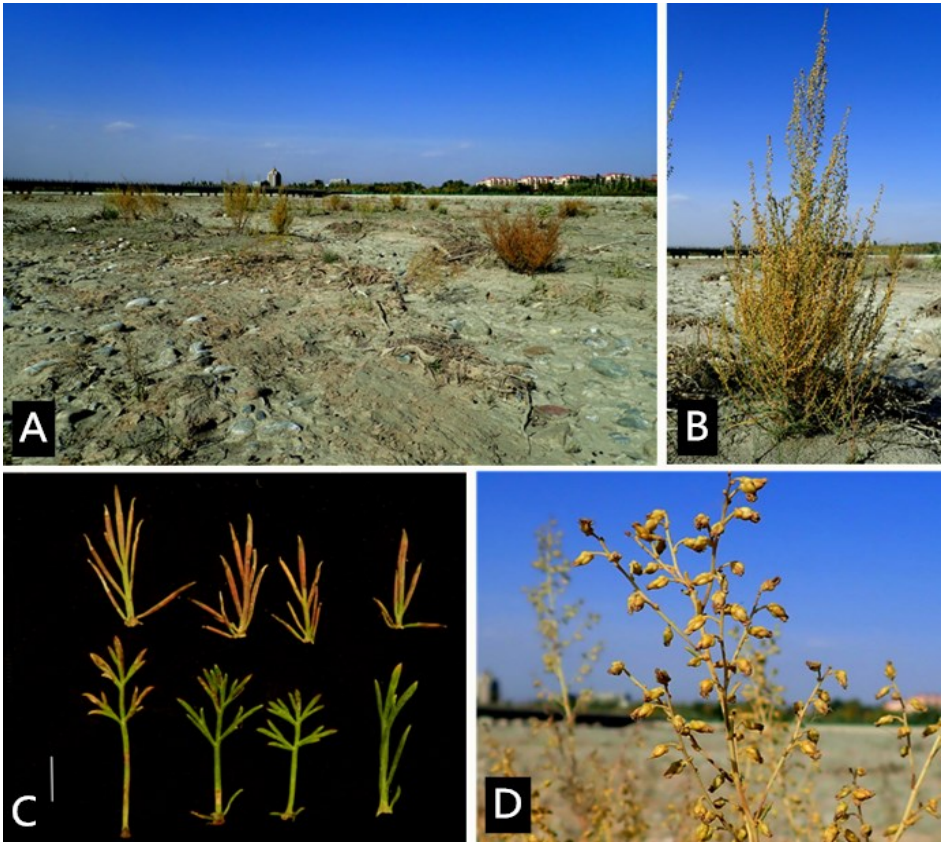


Figure 2. Habitat and morphology of *Artemisia albicerata* Krasch. from Xinjiang, China. Photo by J.Y. Zheng.

A – habitat; B – individual in flowering; C – leaves; D – synflorescence.  
Scale bar in C 1 cm

In Xinjiang, four other species of the series *Psammophilae* are most similar to *A. quinqueloba* and *A. albicerata*: *A. campestris*, *A. saposhnikovii*, *A. songarica*, and *A. marschalliana*. A key to distinguish these six species are provided below.

**Key to species of the series *Psammophilae* from Xinjiang, China**

1. Capitula erect ..... 2
- + Capitula nodding ..... 3
2. Stem, leaves, and involucre glabrous or nearly glabrous ..... *A. campestris*
- + Stem, leaves, and involucre pubescent ..... *A. marschalliana*
3. Capitula pedunculate ..... 4
- + Capitula sessile ..... 5
4. Stem, leaves, and involucre densely pubescent ..... *A. quinqueloba*
- + Stem, leaves, and involucre glabrous or nearly glabrous ..... *A. albicerata*
5. Lower and middle part of stem branched, synflorescence arranged in a broad, much-branched panicle ..... *A. songarica*
- + Upper stem branched, synflorescence arranged in a narrow, spikelike panicle ..... *A. saposhnikovii*

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## Новые находки *Artemisia quinqueloba* и *A. albicerata* (Asteraceae) в Китае

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**Аннотация.** Приведены находки двух новых для флоры Синцзяна (Западный Китай) видов рода *Artemisia* – *A. quinqueloba* Trautv. и *A. albicerata* Krasch.,

считавшихся ранее эндемичными видами пустынной зоны Казахстана. Представлены иллюстрации местообитаний и морфологических признаков обоих видов. Приведен ключ для определения двух новых для флоры Китая видов и четырёх морфологически сходных видов, входящих в ряд *Psammophilae* Poljak.

**Ключевые слова:** Западный Китай, новые находки, Синьцзян, *Artemisia*.

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