

Ecological character

According to the soil-vegetation criterion one can distinguish 56 types of habitats united into 3 large groups (natural surface, surface anthropogenically transformed and aquatic habitats). Great variety and mosaic arrangement also explain rich fauna occupying various types of habitats and numbering over 2000 invertebrate species including 24 rare ones and over 400 species of vertebrates including 38 rare, endemic and protected species.

The area in question has a broad representation of five vegetation types: desert, meadow, swamp, forest, submerged aquatic and shrubs. Desert vegetation is represented by artemisia, perennial halophytic, ephedrarum, saxaul and *Nitraria retusa* associations. The meadow vegetation type is represented mainly by true, marshy and halophytic meadows. Grassy bogs are confined to river channels, cutoff lakes and depressions. Submerged aquatic vegetation is the main component of littoral complexes of Alakol intermontane hollow. The wetlands record a total of 710 higher plants of 362 geni and 88 families, including 44 rare, 8 relic and 12 endemic species.

Endemic species – Kolpakowski's Tulip (*Tulipa kolpakowskiana*), Tulipa brachystemon (Tulip) (*Tulipa brachystemon*), Sievers's Apple-tree (*Malis sieversii*), Papaver tenellum (Poppy) (*Papaver tenellum*), Birdbill milk vetch (*Astragalus ornithorhynchus*).

Rare, protected species included into the Red Book of Kazakhstan – Kolpakowski's Tulip (*Tulipa kolpakowskiana*), Tulipa brachystemon (Tulip) (*Tulipa brachystemon*), Sievers's Apple-tree (*Malis eseverisii*), Papaver tenellum (Poppy) (*Papaver tenellum*), Birdbill milk vetch (*Astragalus ornithorhynchus*)

Relic species: Sievers's Apple-tree (*Malis eseverisii*), Papaver tenellum (Poppy) (*Papaver tenellum*), *Nitraria shoeberi* (*Nitraria shoeberi*), Floating Moss (*Salvinia natans*), Asiatic Poplar (*Populusdivesifolia*), White Water Lily (*Nymphaea candida*), Yellow Pond Lily (*Numphar lutea*), *Trichanthermis karatavensis* (*Trichanthermis karatavensis*), Ujaly milk vetch (*Astragalus ujalensis*), Albescent milk vetch (*Astragalus albicans*), *Phlomides iliensis* (*Phlomides iliensis*), *Micricephala subglobasa* (*Micricephala subglobasa*).

Significance of ecosystems in supporting the wetland biodiversity

There are 58 types of water and land ecosystems identified in the wetlands following the soil and botanic principle. The comprehensive evaluation of their significance demonstrated that, at least, 25% of the wetlands are covered by highly significant ecosystems and, at least, 40% by ecosystems of medium significance. The functions they perform are important for landscape stabilization, water protection and biotic resources.