

Altai montane forest and forest steppe

The *Altai montane forest and forest steppe* ecoregion is to be found in the highest mountain range of southern Siberia and is a good example of the co-existence of steppe and forest in a mountain area. It is characterized by coniferous forest on cool and moist, north-facing slopes and steppe vegetation that predominates on other slopes. Desert and desert-steppe vegetations reach far into the southern regions.

Altai steppe and semi-desert

The *Altai steppe and semi-desert* ecoregion is situated between the Kazakh desert plain and the montane Altai coniferous forests. The boundaries coincide with the arid steppes of the Altai, Saur mountains and Tarbagatai, mountain ranges that are divided by depressions between 800 and 4,500 m. The *Altai steppe and semi-desert* is characterized by feathergrass and shrub, along with currant, dog rose, hawthorn, honeysuckle and willow bushes. At a slightly higher altitude in the south, forests contain tree species, such as ash, birch, cedar, fir and poplar.



Kein-Kerish canyon, Zaysan region, East Kazakhstan province, May 2005 (Sjaak de Groot)

Tien Shan montane steppe and meadows

The *Tien Shan montane steppe and meadows* ecoregion, possessing several distinct meadow and steppe communities, ranges from the base of the mountains at c 1,000 m to the snowline at 3,300–4,200 m. Moisture and the presence or absence of protective snow cover determines the characteristics of each community. In general, forest (mainly spruce) is restricted to north-facing slopes in the subalpine zone, intermixed with broad swathes of sedge-meadow. Elsewhere, meadow steppe is the dominant ground cover. Vegetation at 800–1,100 m consists of wormwood steppe. At 1,100–1,500 m, on south-facing slopes, desert steppe is replaced by dry, sparse grassland and shrubs. This 'grassland steppe' persists over a wide altitudinal range to merge with alpine vegetation above 2,700 m. Here, the alpine zone is dominated by low-growing sedges in the meadows. North-facing slopes are shrubbier at low altitudes and give way at c 2,500 m to a park-like forest-meadow mosaic.

Tien Shan montane coniferous forest

Despite its location in an arid part of Central Asia, the Tien Shan is high enough to intercept moist arctic air