1 Asian Wild Ass, Kulan – Equus hemionus

Equus hemionus Pallas, 1775.
Perissodactyla, Equidae

1.1 Status and Distribution (Fig. 1.1)

1.1.1 Taxonomic Remarks

Only one subspecies, E. h. onager Boddaert 1785, exists in the modern fauna of the former USSR. E. h. hemionus Pallas 1775 inhabited the Transbaikal part of the range and has been extinct since the latter part of the 18th century. E. h. finschii Matschie 1911 inhabited the Kazakhstan part of the range and became extinct in 1936–1937 (Heptner 1989; Blank and Dzhanyspaev 1990).

1.1.2 Status

Vulnerable (VU–A2c) (Hilton-Taylor 2000).

1.1.3 Distribution (Fig. 1.2)

Distribution Area. Ca. 4,268,000 km² (estimated historical range).

Occurrence in Ecoregions. Temperate steppe (332), temperate desert (342, 343).

1.2 Measurements (Fig. 1.3)

1.3 Habitat (Table 1.1)

Semi-deserts and deserts of uplands and foothills. During winter mostly in deserts, during summer in semi-deserts and more seldom in steppes (Solomatin 1973).
Terrain Form. Flat and hilly uplands; foothills of mountains.

Altitude. In upland at 800 m a.s.l. (Badkhyz population).

Snow. Snow is important as water source. At more than 40 cm snow depth animals follow each other. Snow depth more than 60–70 cm is limiting (Sludsky 1963; Solomatin 1973).

Temperature. In the past, kulans inhabited areas with a temperature range from −50 to +45°C.

Water. Need watering except during early spring when food plants are rich in water. On Barsakelmes Island, they can drink salt water (<20 g salt/l, except pregnant females <10 g salt/l). Evacuation of kulans from Barsakelmes Island started due to increasing saltiness of the Aral Sea in 1986 (Blank and Dghanyspaev 1990).

1.3.1 Biotope (Table 1.1)

1.4 Diet and Feeding Habits

1.4.1 Diet (Table 1.2 and Appendix 1, Table 1)

In winter, when snow is absent or not too deep, green parts of sedges, cereals, wormgrass and Salsola are the main diet; large herbs and shrubs
Fig. 1.2. *Equus hemionus*. Distribution map and migration routes (Blank and Dzhanyspaev 1990). 1 Aktau-Bazatchi; 2 Barsakelmes Island; 3 Badkhyz Nature Reserve; 4 Betpaqdala semi-desert; 5 Andasaysky Game Husbandry; 6 Qapshaghay Game Husbandry. *Thick lines* represent routes of migration in the past.
constitute a minor part. When the snow is deep, tall herbs and shrubs are frequently eaten. In spring, ephemeral plants are important. In summer, cereals and sedges comprise 90% of the diet (Solomatin 1973). Kulans usually eat the excrement of other herbivores. Visit salt licks. For a list of plant genera eaten see Appendix 1, Table 1.

1.4.2
Life Forms/Plant Parts Eaten (Table 1.3)

Consumption of Food/Day. Ca. 5 kg of dry food (calculated by Solomatin 1973).
Feeding Niche. In field and shrub layers.

1.5
Social Organization and Behavior

1.5.1
Social Life (Table 1.4)

There are permanent groups which consist of a stallion, some mares and some young animals. However, the stallion can leave the group for a few days. Average size of groups is 11–13. In winter the groups can form concentrations of up to 150–200 animals (Solomatin 1973; Bannikov 1981; Table 1.4).

A mature female leads the group during movements and selects the direction and rhythm of pasturing. The stallion is dominant and brings...