7 ZOOGEOGRAPHY

Speciation in *Ixodiopsis* is evidently tied to the Pleistocene dispersal of boreal arvicolid rodents from Siberia to North America by way of Beringia. Obviously, this was the only corridor available for such movements because, by the Late Miocene, the continents had more or less assumed their present positions (Smith & Briden 1977, Savage & Russell 1983, Timm & Clauson 1985). The so-called Bering Land Bridge existed intermittently throughout the Tertiary, but the progressive cooling and drying of world climate during that time eventually culminated in a period of major climatic fluctuations--the Quaternary (Youngman 1975). At least four great continental glaciations (Nebraskan, Kansan, Illinoian, Wisconsinian) and three interglacials (Aftonian, Yarmouthian, Sangamonian) are recorded for this period. At times of glacial maxima, so much water was withdrawn from surrounding seas that the entire Bering-Chukchi continental shelf was exposed, creating a "bridge" that at no point was <1,000 km wide (Hopkins 1959). Moreover, this vast area experienced little glaciation itself because the dry climate produced insufficient snowfall (Hopkins 1960, Kurtén 1988). Quaternary Beringia was thus, for the most part, a broad herbaceous steppe or tundra, extending roughly from the Kolyma River in northeastern Siberia through most of northern Alaska (except the Brooks Range) and the western Yukon, and from