The concept of home range was expressed by Seton (1909) in the term 'home region,' which Burr (1940, 1943) clarified with a definition of home range and exemplified in a definitive study of Peromyscus in the field. Burt pointed out the ever-changing characteristics of home-range area and the consequent absence of boundaries in the usual sense—a finding verified by investigators thereafter.

In the studies summarized in this paper, sizes of home ranges of Peromyscus varied within two magnitudes, approximately from 0.1 acre to ten acres, in 34 studies conducted in a variety of habitats from the seaside dunes of Florida to the Alaskan forests. Variation in sizes of home ranges was correlated with both environmental and physiological factors; with habitat it was conspicuous, both in the same and different regions. Food supply also was related to size of home range, both seasonally and in relation to habitat. Home ranges generally were smallest in winter and largest in spring, at the onset of the breeding season. Activity and size also were affected by changes in weather. Activity was least when temperatures were low and nights were bright. Effects of rainfall were variable. Sizes varied according to sex and age; young mice remained in the parents' range until they approached maturity, when they began to travel more widely. Adult males commonly had larger home ranges than females, although there were a number of exceptions. An inverse relationship between population density and size of home range was shown in several studies and probably is the usual relationship. A basic need for activity and exploration also appeared to influence size of home range. Behavior within the home range was discussed in terms of travel patterns, travels in relation to home sites and refuges, territory, and stability of size of home range. Travels within the home range consisted of repeated use of well-worn trails to sites of food, shelter, and refuge, plus more random exploratory travels. Peromyscus generally used and maintained several or many different home sites and refuges in various parts of their home ranges, and frequently shifted about so that their principal activities centered on different sets of holes at different times. Once established, many Peromyscus remained in the same general area for a long time, perhaps for the duration of their lives. Extent of their travels in different directions and intensity of use of different portions of their home ranges varied within a general area in response to habitat changes, loss of neighbors, or other factors. Various authors have obtained both direct and indirect evidence of territoriality, in some degree, among certain species of Peromyscus. Young mice dispersed from their birth sites to establish home ranges of their own. Adults also sometimes left their home areas; some re-established elsewhere; others returned after exploratory travels. Most populations contained a certain proportion of transients; these may have been wanderers or individuals exploring out from established home ranges or seeking new ones. When areas were depopulated by removal trapping, other Peromyscus invaded. Invasion rates generally followed seasonal trends of reproduction and population density. Peromyscus removed from their home areas and released elsewhere returned home from various distances, but fewer returned from greater distances than from nearby; speed of return increased with successive trials. The consensus from present evidence is that ho-ming is made possible by a combination of random wandering and familiarity with a larger area than the day-to-day range. Records of juvenile wanderings during the dispersal phase and of adult explorations very nearly encompassed the distances over which any substantial amount of successful homing occurred. Methods of measuring sizes of home ranges and the limitations of these measurements were discussed in brief synopsis. It was co
Define home range. home range synonyms, home range pronunciation, home range translation, English dictionary definition of home range. n. The geographic area to which an organism normally confines its activity. n ecology the area in which an animal normally ranges n. the area in which an... The present study analyzed the daily travel distance, home range and group characteristics of scaly-sided merganser Mergus squamatus in Yihuang and Wuyuan counties, Jiangxi Province, China, from December 2012 to March 2013 and December 2015 to March 2016. Home Range and Group Characteristics of Wintering Scaly-Sided Merganser Mergus squamatus in the Watershed of Poyang Lake, China. Home range estimates can indicate areas and habitats for various behavior patterns. It is widely recognized that 100% home ranges reveal the entire feeding and excursion area of an individual, while 50% of the home range represents a smaller core area(s) where most of the activities concentrate (e.g., [50]). Winter telemetry data was characterized by low numbers of fixes. ... The goal of this study was to estimate home range size and daily traveled distances (DTD) of two groups of woolly monkeys using two different sampling methods: direct observations of focal animals using handheld GPS devices and GPS collars located on four individuals.