Results of bison social analyses. 4 April 2019

Seasons:

Breeding season: 1 July to 31 Aug

Removal season: 30 Nov to 31 March

Figure 1. Proportion of time diads are together during each season. This shows how diads spend more time together during the breeding season.



Figure 2. Histogram of time spent on northern range across all id-yrs.



Figure 3. Some basic metrics of each Annual network developed for each year. This includes a) the number of collared animals in each year; b) the number of clusters identified; c) the mean number of connections among individuals compared to all the connections possible; and d) mean centrality of the graphs. In general, vertices with high eigenvector centralities are those which are connected to many other vertices which are, in turn, connected to many others (and so on).



Figure 4. Distribution of network metrics for individual animals across the years. The degree of a vertex is the number of its adjacent edges. The vertex betweenness is defined by the number of shortest paths going through a vertex. In general, vertices with high eigenvector centralities are those which are connected to many other vertices which are, in turn, connected to many others (and so on). (The perceptive may realize that this implies that the largest values will be obtained by individuals in large cliques (or high-density substructures).

