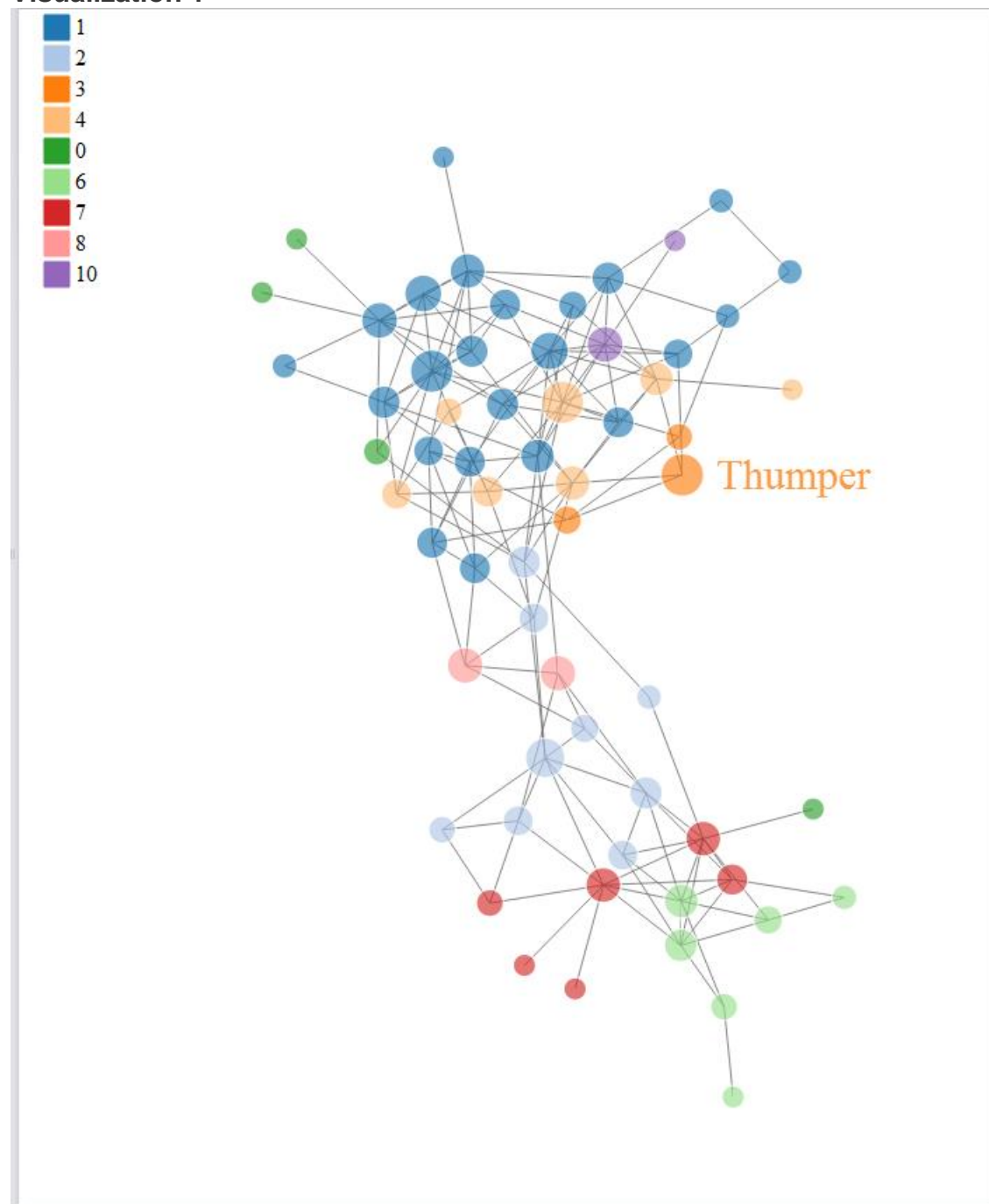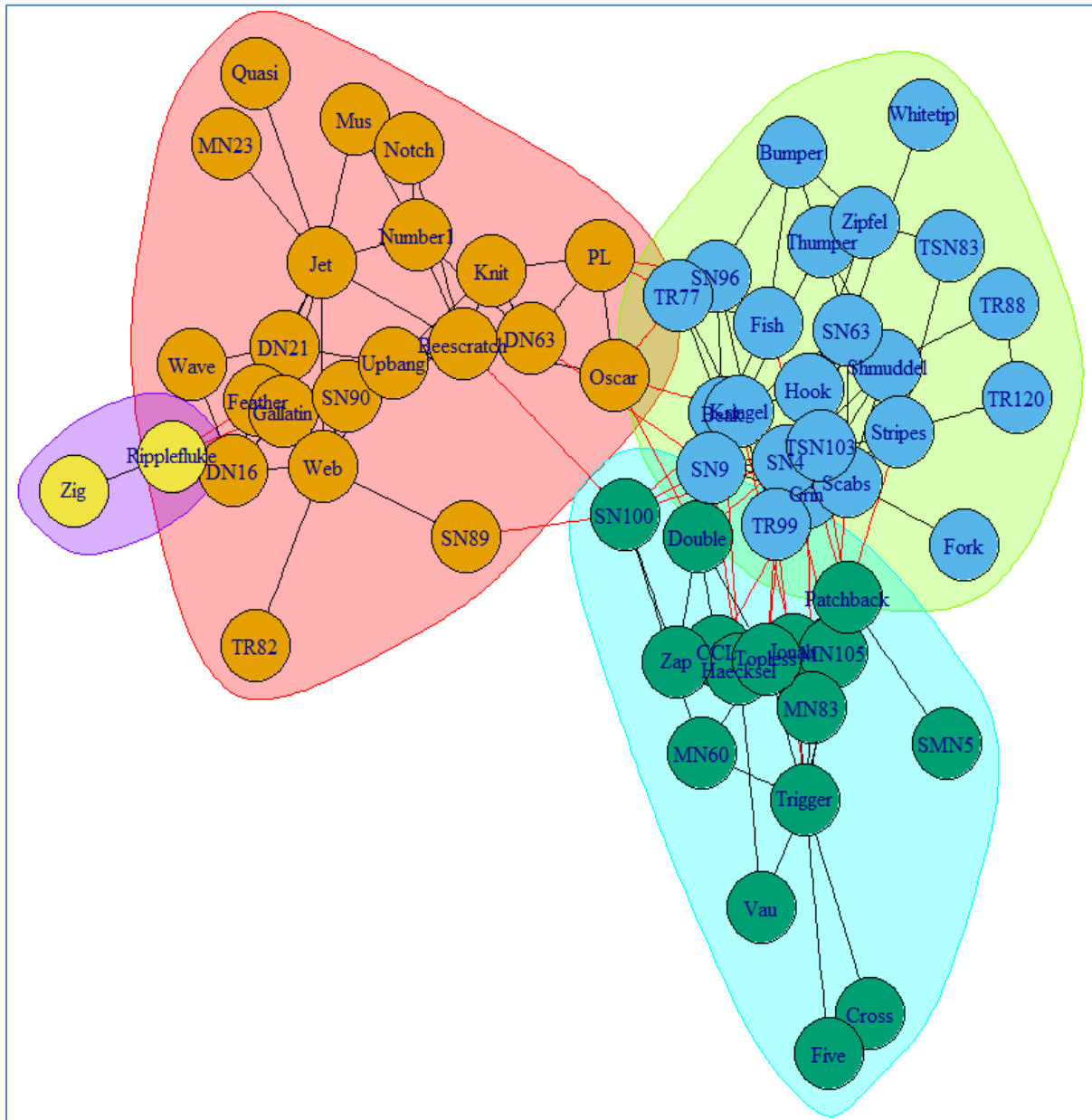**Visualization 1**

Explanation:

- This is a graph visualization representing an undirected social network of frequent associations between 62 dolphins in a community living off Doubtful Sound, New Zealand (obtained from UCI machine learning repository: http://networkdata.ics.uci.edu/data/dolphins/). The entire dataset was used, no subset.
- Each vertex represents an individual dolphin and each edge represents a pair that was observed in the same school more often than expected by chance (reference paper: http://arxiv.org/ftp/q-bio/papers/0607/0607048.pdf).

- The size of the node is determined by the number of edges it has, and the positions are determined by a Force-Directed Layout algorithm.
- The nodes (dolphins) were clustered using the Markov Cluster algorithm into 10 groups. Each distinct color (of the nodes) represents a dolphin belonging to a distinct group.

Visualization 2

Explanation:

- The above visualization shows the community structure in the same dolphin social network, but this time via short random walks. Four distinct groups found that form communities.