Wrangling and Preparing PIT Tag Data using PITcleanr

Have you ever tried to use PIT tags to examine survival or movement of fish and been overwhelmed by the number of detections or how to organize it? PIT tag data can be simultaneously full of information and overwhelming to analyze. A single tag may ping on the same antenna, or at the same site, many times, generating tens and sometimes hundreds of redundant records. In addition, determining the direction and path of a tag’s movement requires some knowledge of how sites are situated relative to each other along a stream network, which is not necessarily an easy task. PITcleanr is a freely available R package designed to help biologists read PIT tag data into R, compress it, add directionality, filter it as needed and generally prepare that data for further analysis such as turning it into more standard capture history matrices. In addition, PITcleanr contains functions to help map sites on a stream network, helping researchers build tables describing the connectivity and upstream/downstream relationships between sites. This workshop will introduce much of the functionality of PITcleanr through a series of examples.