# Applications of GPS tracking in recreational monitoring

Hans Skov-Petersen, Reto Rupf, Daniel Kölich, Jette Bredahl Jacobsen

|  |  |  |  |
| --- | --- | --- | --- |
|  | Description | | Inference |
|  | Locations only | Additional layers |  |
| Local (individual points) | Where is (x, y)? | What is? |  |
| Focal (temporal) | How fast?  How steep?  Stop/go?  Angular relations |  | Speed/slope relations  Choice of ‘next point’ (relative to options) |
| Zonal (single track/tours/routs) | How far?  Round trip?  Average speed?  Altitude difference? | Land cover distribution | Choice of route (relative to options) |
| Global (all tours, for an individual or all respondents) | Area of interest  Averages etc… | Very much like above |  |

Ref. Dana Tomlin

Notes:

* Focal choice analysis requires numerous locations of choice (for a raster approach any point, for vectors all nodes). For zonal/global analysis numerous tours are required (and a way to generate alternative routes)

## Framework II: Data model

Data model: Raster or vector

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | Scope of choice | |
|  |  | Focal | Global |
| Data model | Vector | Alternative edges | Alternative routes (special method required) |
| Raster | Alternatives defined by distance angle (relative to actual selected point, and potentially the bearing towards the destination and/or the previous point | Selected tours vs a corridor |