**CWS R Workshop Input: Questions put to group for CWS R workshop on Rasters and Interactive maps.**

1. **What specific things about raster manipulation or interactive mapping (or running your own applications in Shiny) would you like to learn more about?**

* ~~clipping/cropping rasters (to polygons),~~
* calculating areas
* ~~overlaying a raster on a leaflet map.~~ + polygons
* ~~Reprojecting~~, reclassification,
* Merging Mozaic Union/Dissolve
* ~~raster algebra~~ Plus de calcul (avec plusieurs couches)
* ~~creating new rasters from point data or vectors~~ Create sf from df from csv!!
* ~~data extraction from rasters~~. Avec points/polygon intersect
* ~~How to use raster results to combine with other spatial data to get something new in R (eg clipping a home range raster by some barrier you know your animal isn’t going)~~. ===> EXO avec barrier polygon eau / elevation / temperature niche thermal
* ~~How to properly manipulate rasters into maps~~
* ~~Working with multi-raster layers~~ Plus d’exemples difference des dimensions
* ~~One person is familiar with ‘sf’ but less with ‘rasters’ or ‘stars’ and would like to learn how to relate between ‘stars’ and/or ‘rasters’ and ‘sf’~~
* ~~Several folks have experience using Shiny (one person is quite experienced), but most others have none to little (other than as an end user) and keen to learn how it could be used for future projects.~~

1. **Are there problems you are currently struggling with you’d like to troubleshoot? Or, problems you foresee yourself struggling with knowing what lies in your future?**

* Workflow for drawing spatially balanced samples using packages such as rasters, stars, sf, spsurvey (for example, extracting habitat values/attributes from rasters) Exo/quantile/sample de cellules/voir si package existe
* Speeding up computation time for raster analysis or when creating rasters (e.g. how to split cores or use other computational methods like splitting rasters into pieces and running parallel code) Post sur le sujet (Steve)??

1. **What special manipulations with data do you do on a regular basis that you feel could be made more efficient (or perhaps, would benefit the group also learning how to do)?**

* ~~Filtering and plotting to visualize (see attached example from one participant)~~
* ~~Raster data extraction to polygones or buffers surrounding points or line data (tips on how to make this more efficient would be great!)~~ insister sur buffer + extraction

1. **To provide them with a bit of background on our needs and experience:**
   1. **For the interactive mapping part, what are you using it for most: exploring/visualizing your data? High quality figures for reports/manuscripts etc?**

* ~~Mostly to visualize data, internal reports, also sharing maps~~
* ~~Exploring and visualizing data, especially for distribution to collaborators/supervisors.~~
* ~~High quality figures for reports/publications~~ exporter fig 300dpi
  1. **How do you use rasters now in your work?**
* To include habitat in analysis, e.g. sampling, study design.
* Extract data for models and then visual model outputs/predictions.
* Using raster data for modelling ref sur modeling
* Creating rasters through interpolation krigeage

1. **Any other things you’d like to cover or have concerns about.**

* Learning how to be more literate overall e.g. having a single document to integrate data analysis (code) with textual documentations (ie via R Markdown).
* ~~If time, anything on spatial analyses with vector/raster data together.~~
* If any time, extracting data from processed satellite data (eg ERDAPP server) Exercice