AFER Information and Data-sharing Working Group
Meeting # 1
November 5, 2020

Google Jamboard Brain-storming

https://jamboard.google.com/d/1rbz812HQrrqOfbxYsPjv1iDoIeatYDwV6LtSZpGFx3A/viewer?f=4

What projects have you been involving data/information-sharing have you previously data?

Howe Sound online decision support tools, web apps: Marine Conservation Assessment https://howesoundconservation.ca/mapapp/, Marine Reference Guide https://howesoundguide.ca/ Woodland caribou story map https://davidsuzuki.maps.arcgis.com/apps/Cascade/index.html?appid=b7356538440643a9a0c907fa8ade38ba

- Nighthawk mapping monitoring program
- Coarse-scale data for PSE (from Province) supplementing with local knowledge
- Rivershed Society of BC - Fraser Watershed Initiative, community mapping project - community restoration and protection priorities.
- Skeena Cumulative Effects Mapping
- LFFA Climate Adapt https://climateadapt.lffamaps.ca/
- Forage fish monitoring network

How have you shared information/data previously?

- Citizen science, iNaturalist
- GIS Storymaps
- Strait of Georgia Data Centre (SGDC) http://sogdatacentre.ca/
- Google docs, FTP sites, ArcGIS Online, zip/email
- eBird (app)
- SeaSketch https://www.seasketch.org/home.html
- Miradi Share
- Nature Counts

What are the gaps in monitoring?

- Total lack of data (DFO not doing it)
- Small scale wetland data missing
- Mapping of non-point pollution sources missing.
- An easily accessible pre-contact baseline habitat map would be helpful.
- Current maps show that we have wide gaps in the actual data we have about salmon

- Habitat quality would also be useful for the Fraser, as this varies widely from very poor to pretty decent
- Intersection with local government--data housed with local government but how do we access it?
- Scaling for different levels of government decision making. Municipal, First Nations, Provincial and Federal.
- Gaps in the way DFO has collected data. Maybe they didn't have funding for a while so they stopped collecting, or they changed their method part way through.
- Mapped habitat & mapped restoration projects need to include area measurement to track % of total remaining, lost, restored, etc for prioritization moving forward
- Rainfall/precipitation is hard to read/use
- Lifespan in long-term databases. Value in surveys doesn't show up until later
- No fine scale bathymetry publicly available
- Up to date threats maps needed.
- Fine scale bird data missing for non-waterfowl species
- Biofilm data in the mudflats is not well mapped.
- Land cover data not fine scale. Be great if BC could develop similar product to Alberta ABMI annual surveys https://www.abmi.ca/home/data-analytics/da-top/da-product-overview/Human-Footprint-Products.html
- Climate Data
- Climate projections (habitat squeeze vs expansion, vulnerability of particular habitat types)
- Collaboration across governments and jurisdictions. In particular local government data and the intersection in the region.
- A lot of data available -not always reflecting local scale with accuracy
- Habitat association is needed
- Baseline info that might become outdated - and difficult to use for modelling, etc
- Interaction with Metro Vancouver might be needed
- Climate data might be challenging for this area - temperature and precipitation is hard to work with
- Existing layers within this group NEED TO BE MADE ACCESSIBLE to all in this group for future uses

Takeaways:

- Gaps in data from governments, no fine-scale data in the Lower Fraser for many species/habitats, lack of baseline data

Common challenges?

- Mapping ecosystem processes such as environmental flows
- Coverage of data
- Ongoing battle of pushing for data coverage
- There is a lot of data available, but not necessarily on a local scale/on the ground

- A lot of people have recognized redundancy in projects--no solutions
- Access to data (Provincial/Federal level)
- Data is out of date.
- If we can get people to care about data and data collection/see the usefulness of it --we can incentivize keeping it up to date
- Exposure to online products like story maps. Hard to match the numbers of Facebook and Twitter leading to managers not wanting to spend too much time on spatial support tools aimed at specialist audience
- Lack of institutional memory/turn-over / settler migration
- Climate data/models relevant to the region is not available
- Lack of funding to keep up data-bases
- How broadly do you want data to be available, and how do you account with compensation for collecting that data?
- Lack of data at different levels of government

Takeaways:

- Inaccessibility of government data, no collaboration among government jurisdictions, lack of funding, no database upkeep, no incentivisation to update data, exposure/access to data online

Potential solutions?

- Lower Fraser Indigenous Guardians - Climate Change Monitoring Fund
- Clean base layers for those with limited GIS skills/time to use in storytelling shared amongst this group.
- Area based notification system so partners are notified when data for a priority area is being accessed.
- HabiStat
- Website that has shows the projects, what data you are looking for etc. to facilitate the collaboration --can bring in Masters students etc. Connecting volunteers to gather data -Millie and Jacq from WildResearch
- Collaboration early on - i.e. multiple organizations host project vs just share data; then can achieve multiple objectives simultaneously
- Guardians
- ArcGIS Online web maps & apps generally sue publicly available data and allow others to search and add layers to their own web maps
- Coordinated system for synthesizing data among all the groups --demonstrate value to inform decision-- which will encourage people to keep recording it- Lia Chalifour
- Salish Sea Marine Survival Project is a good example of a group who had funding to bring data and projects together --created the Strait of Georgia data centre
- Citizen Science?

Takeaways:

- Guardians and citizen science for data collection, coordinated approach among individuals, database/housing, early collaboration, demonstration of value of data-sharing

How do we better coordinate data-sharing?

- CMNBC has fine-scale data on the state of channels connecting to the Fraser - can be used for baseline of what is there and also to perform prioritization studies for restoration and protection sites. Centralization?
- BCIT house database
- Centralization--inventory
- Create a platform/space for researchers to connect and exchange feedback with citizen science groups
- Get funding to host training sessions in open source GIS platforms and how to work with community datasets.
- Will help if spatial warehouses like DataBC and DFO can organize data searches for regions like Lower Fraser, list available data
- Ideal platform? One of the partner websites? Github? Dropbox? Layers need to be shared for maximum utility
- Put together "packaged" datasets along with tutorials. See for instance R package for Motus Data https://beta.motus.org/MotusRBook/
- Provide some set of shared indicators. For instance Puget Sound Ecosystem Monitoring Program or Metro Vancouver Regional Growth Strategy. Keep it local so it speaks to local priorities.
- Create Fraser Estuary Miradi Share Project https://www.miradishare.org/ux/home
- Develop a group data sharing agreement so we can share project data amongst networks.
- Develop a shared "project" and "permit" notification system so we all get an alert when a municipal, provincial or federal permit is applied for in the lower Fraser.
- Get funding to produce un-branded maps we can use in respective communications

Takeaways:

- Centralization of data, website for collaboration/linking with data collectors, group-sharing agreement, alerts when new data is released, funding to produce unbranded maps

What topics would you like to see covered in future meetings?

- Restoration, protection orders for endangered species
- Human wellbeing data. Fishing spots, birding spots, great places to take photo's, where the water is swimmable, we are the night star gazing the best. ....
- Monitoring
- Central repository for data
- How is data changing the world--how do we turn it into social change?

- Identifying usefulness of data in decision-making
- Group presentations on examples where they inserted data into a decision making process
- Effort versus exposure of mapping/data projects
- Long-term funding for maintaining data collection/data-bases
- Baseline and trend data. What baseline data are people using. What trend data are people using
- Determine list of priority actions/projects, then begin to sign up for collaborations to achieve them

Takeaways:

- Central repository, prioritization/list of action items, how do we use data for policy/social change?, restoration/monitoring data, data previously used to impact decision-making

Priorities and Objectives and Goals?

- Identifying & pooling all layers of habitat (remaining, lost, restored) for salmon and other target species for the entire Lower Fraser. i.e. FREMP-style layers for benthic, aquatic, riparian habitats
- ***any information/data that we compile needs to link to decision-making process---this would really add value for the group -James Casey
- Data that lets us tell an ecosystem story as well as pinpoint legally managed resources.
- Long term goal ENGO led trend data
- Shared pretty maps to start the storytelling
- Long term goal - ENGO/Academic cumulative effects analysis and data.
- Data that lets us tell an ecosystem story as well as pinpoint legally managed resources.
- List of action items --future meetings could be multiple break out rooms/separate meetings to push some of those action items further

Takeaways:

- Pool all data layers, data needs to link to decision-making/policy, storytelling, list of action-items