# Hi/Lo Publication Team Meeting #1 (7 April 2021)

Authors: Francis, Sarah, Sharon, Fiona, Jill

## Agenda

1. Determine the main focus for the publication and what data set(s) to include

-depth and current as potential influencers of fish comm dynamics

-separate papers for inverts/algae vs fish

2. Outline our specific research question(s) and hypotheses

- look more at species specific diff b/w hi/low current wrt length and abundances

-indl vs comm responses to current drivers

3. Determine which parameters to include in the analyses and what types of analyses are appropriate for the data

-max current – be clear re a priori criteria vs after/inflection point. Look at other studies re current and fish

-Alejandros hab complexity paper – similar metrics here?

-slope from Sharon? Hab var? % rock/hard sub cover?

4. Determine the role/involvement of authors in the different stages of MS prep

-Jill: first authorship, writing, leading effort, responding to reviewers

-Fiona: data analysis, writing data analysis and results section, editing

-Sharon: context contributions, editing, TCM interpretation/methods

-Sarah: context contributions, editing, Senior author

-Francis: editing

5. Framework/context

-current as a proxy for biodiversity (where to target survey efforts, fill data gaps, develop sp/hab relns., conservation/protection from oil spills (marine spatial planning))

-habitat relationships – species specific hab relns. Conservation perspective

-comm vs species proxies that are relevant

-surrogate piece works for both papers regardless of the overall motivation/context/consequence if exploring ecological angle

-from a conservation perspective, determining where to put survey effort. Maybe fish need more indepth survey methods to properly capture comm differences

# 7-May-2021 Mtg with Fiona re Data Analysis Next Steps

Jills jobs

~~-double check the current numbers that I have vs what Fiona/Sharon has~~

~~-send R abiotic file and raw data~~

~~-Intro topic sentences, objective paragraph, final intro sentence~~

~~-play around with figures as per comments in MS~~

Fiona’s jobs

-rerun models with correct data

-models on richness, abundance, biomass – with current, depth, slope, %rock, (1|Site)

~~-include slope values from Sharon AND %rock cover (bedrock, boulder, cobble) – Jill sent this info to Fiona 10May2021~~

-abundance and length models with subset of abundant species (> 50 individuals)

Info about PCA analysis

-Only useful for condensing many explanatory variables into a few (via dimensions), which can then be used in modeling. THIS TECHNIQUE IS NOT USEFUL FOR ANALYZING COMMUNITIES.

-https://builtin.com/data-science/step-step-explanation-principal-component-analysis

-https://www.datacamp.com/community/tutorials/pca-analysis-r

-Can we move to github or MSTeams or something rather than email for file sharing/info transfer?

# 20-May-2021

Jill:

~~life history figures: plot ind'l biomas over each variable (by species)~~

~~community analysis (tweak from thesis?)~~

Fiona:

read MS and provide comments

run richness models

tidy R Markdown

send link to github

Later:

Figure out what to do with species level analysis

# 17-Jun-2021

Jill

~~-email authors and find a time to meet to discuss objectives, analysis, and figures~~

~~-start ppt for author meeting~~

~~-read mixed effect model partial pooling blogpost~~

Fiona

-tighten up some figures/analysis

-help with ppt

# 24-Jun-2021

Jill

-if no response from other authors by 25Jun EOD, email Sharon on 28Jun

# 13-Jul-2021

Jill, Fiona, Francis

-Analysis Update

The similarity between the 3 and 15m communities (nMDS) allows us to pool the length data.

-Journal options

* Ecological Applications

*Ecological Applications is concerned broadly with* ***the applications of ecological science to environmental problems****. It publishes papers that develop scientific principles to* ***support environmental decision-making****, as well as papers that discuss the application of ecological concepts to environmental issues, policy, and management. Papers may report on experimental tests, actual applications, scientific decision support techniques, economic analyses, social implications of environmental issues, or other relevant topics. Statistical or experimental methods papers that support research and applications are welcome. Papers submitted to Ecological Applications should be accessible to both scholars and practitioners.*

Impact factor: 4.25

Online only (no print copy of the journal)

No limit on number of figures – colour figures incur no additional publication charges

Data must be made publicly available

$75/pdf page

* Ecological Indicators

*The ultimate aim of* Ecological Indicators *is to* ***integrate the monitoring*** *and* ***assessment*** *of* ***ecological*** *and* ***environmental indicators******with management practices****. The journal provides a forum for the discussion of the applied scientific development and review of traditional indicator applications as well as for theoretical, modelling and quantitative approaches such as index development.*

Impact factor: 4.96

Online only

~ 7,000 words, max 10,000 words

No limit on the number of figures

$2500 flat fee

* CPS Fish and Aquat Sci

Impact factor 2.85

*The* Canadian Journal of Fisheries and Aquatic Sciences*is the primary publishing vehicle for the multidisciplinary field of aquatic sciences. The journal publishes perspectives (syntheses, critiques, and re-evaluations), discussions (comments and replies), articles, and rapid communications, relating to current research on -omics, cells, organisms, populations, ecosystems, or processes that affect aquatic systems. The journal seeks to amplify, modify, question, or redirect accumulated knowledge in the field of fisheries and aquatic science.*

No mandatory fees, $1500 to publish open access w/ DFO discount, $250/colour figure

Max 10,000 words

No limit on the number of figures

* AFS – Marine and Coastal Fisheries

Impact factor: 1.74

*Marine and Coastal Fisheries: Dynamics, Management, and Ecosystem Science publishes original and innovative research that synthesizes information* ***on biological organization across spatial and temporal scales*** *to promote ecologically sound fisheries science and management. This Gold Open Access journal provides an international venue for studies of marine, coastal, and estuarine fisheries, with emphasis on species' performance and responses to perturbations in their environment, and promotes the development of* ***ecosystem-based fisheries science and management****. The journal encourages contributors to identify and address challenges in population dynamics, assessment techniques and management approaches, human dimensions and socioeconomics, and ecosystem metrics to improve fisheries science in general and make informed predictions and decisions.*

150 page max!

No additional charges for colour figures

$1,980 flat fee

* MEPS – very unlikely our paper would be accepted here

Impact factor: 2.36

*MEPS is a leading ecological journal publishing research on all aspects of marine, coastal and estuarine ecology. MEPS coverage includes the whole spectrum of species, habitats, biological organisation (cells to ecosystems) and research (fundamental and applied). Priority is given to outstanding research that advances our ecological understanding.*

* ICES Marine Journal – also very unlikely our paper would be accepted here

Impact factor 3.59

The ICES Journal of Marine Science *publishes original articles, opinion essays (“Food for Thought”), visions for the future (“Quo Vadimus”), and critical reviews that contribute to our scientific understanding of marine systems and the impact of human activities on them. The Journal also serves as a foundation for scientific advice across the broad spectrum of management and conservation issues related to the marine environment. Oceanography (e.g. productivity-determining processes), marine habitats, living resources, and related topics constitute the key elements of papers considered for publication. This includes economic, social, and public administration studies to the extent that they are directly related to management of the seas and are of general interest to marine scientists. Integrated studies that bridge gaps between traditional disciplines are particularly welcome.*

-Sharon’s current readings?

No, but look at what her results are

-Additional figures/analyses

No, everything looks good

-Next steps?

Look at journal target themes.

Send objectives paragraph along with results section. Ensure results section flows.

# 15-Jul-2021: Results Section

Fiona, Jill

-mtg w Sarah Monday 12:30

-Fiona to make a coeff plot w raw data

-We’ll send around a doc w figs and captions the second week of August (no write-up yet)

# 19-Jul-2021

Fiona, Jill, Sarah

-Be careful with how the paper is framed:

* + talk about how current is important, OR
  + talk about how these sites vary based on these variables, OR
  + does tidal current influence fish comms and if not, what does?

-The other non-depth variables have such a small influence, yet they still come up in the top models. This will need to be discussed in the paper.

-Refer to 'life history traits' as ‘fish lengths’ instead.

-Partial pooling - make sure to mention that since many species were found at both depths, that this method is valuable.

-Indicate somehow the min and max sizes of each species from FishBase on the species list in appendix

-Sharon’s current meters – use the current data we have, but conduct sensitivity analysis w simulated data

-Sarah thinks we can cut the methods figure since it’s confusing and the methods are fairly standard

-Include info about potential journals to publish in when sending out figures

# 25-Oct-2021

Jill, Fiona

Jill tasks

-Add pared-down methods and results to ResultsSection.doc

-Github uploads: this meeting notes doc, R code with code for figures, ResultsSection.doc

Fiona tasks

-Model results figures (Richness, Abundance, Biomass and each variable – 12 panel figure?)

-Partial pooling figure (See Appendix Table A1 for FishBase fish max length data to sort the species)

-Add methods and results to ResultsSection.doc