

Project Proposal Examples

Good vs. Weak Proposals

IB 514: Graduate Scientific Writing
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3-slide limit:

Project Overview, Structure & Scope, Journal Strategy.

Slide 1: Project Overview — Strong Example

Working Title

Growth-induced anti-switching destabilizes coastal predator-prey interactions

Likely co-authors

Me, Lila Yang, Malcolm Peralta, Malayah York

Project Description

We characterize prey switching by generalist predators and how it destabilizes rocky intertidal population dynamics using long-term observational data and dynamic models.

Main Message

Ontogenetic increases in predator body size affect population-level anti-switching and destabilize predator-prey dynamics.

Manuscript Type

Primary research article

Intended Audience

Community ecologists, both empiricists and theoreticians

Why this works: Clear contribution, specific scope, identifiable audience.

Slide 1: Project Overview — Weak Example

Working Title

Food webs and predator behavior

Project Description

This paper looks at predator-prey interactions and how they affect ecosystems. I will explore some data and models.

Likely co-authors

Me, my advisor

Manuscript Type

Chapter (hopefully publishable)

Intended Audience

Ecologists

Why this is weak: Vague question, undefined contribution, generic audience.

Slide 2: Structure & Scope — Strong Example

Proposed Structure

- ▶ Intro: prey switching theory predictions and assumptions
- ▶ Methods: long-term intertidal surveys, observational approach, dynamical model
- ▶ Results: population-level anti-switching caused by the growth of individuals
- ▶ Discussion: implications for food web stability
- ▶ Supplementary: mathematical details, lab experiment

Data and Analyses

- ▶ 3-year monthly species abundance and predator diet surveys
- ▶ Existing model & code adapted from prior published work

Scope

- ▶ Will include lab experiments (as supplementary materials)
- ▶ Won't include the field experiment or literature synthesis

Why this works: Concrete structure, feasible analyses, clear limits.

Slide 2: Structure & Scope — Weak Example

Proposed Structure

- ▶ Introduction
- ▶ Results
- ▶ Discussion

Data and Analyses

- ▶ Various datasets
- ▶ Some models

Scope

- ▶ Depends on how things go

Why this is weak: Non-informative structure, undefined data, no feasibility signal.

Slide 3: Journal Strategy — Strong Example

Candidate Journals

1. Aspire: *Ecology Letters* — widely read by empiricists & theoreticians, general ecology
2. Solid: *Journal of Animal Ecology* — strong fit for predator behavior and dynamics
3. Backup: *Marine Ecology* — solid fit for marine audience

Format and Constraints for Aspiration

- ▶ ~6,000 words main text (incl. captions), 200 word abstract, IMRaD required, 5 figures, allows supplemental materials

Timeline

- | | |
|---------------------------|----------------------------------|
| ▶ Methods draft: Wk 3 | ▶ Discussion draft: Wk 7 |
| ▶ Results draft: Wk 4 | ▶ Full draft to co-authors: Wk 8 |
| ▶ Complete analyses: Wk 5 | ▶ Submission-ready draft: Wk 10 |
| ▶ Intro draft: Wk 6 | ▶ Submission: Wk 11 |

Why this works: Strategically-ranked journals, knowledge of format and constraints, realistic timeline.

Slide 3: Journal Strategy — Weak Example

Candidate Journals

- ▶ *Science*
- ▶ *Nature*
- ▶ *PeerJ*

Format Constraints

- ▶ Not sure yet

Timeline

- ▶ Write paper
- ▶ Submit

Why this is weak: Prestige-driven targeting, no evidence of planning or realism.

Reflection

- ▶ What information is essential to the message vs. optional?
- ▶ Where do the strong examples signal feasibility?
- ▶ How do journal choices reflect audience rather than ambition?

Plan to revise your slides (or notes) after peer feedback.