

# The Scope of Evolutionary Ecology Revisited

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Biol 417: Evolutionary Ecology



1. Grant Proposal Writing
2. The Scope of Evolutionary Ecology Revisited

# **Grant Proposal Writing**

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If you intend on pursuing a career in ecology, grant writing will make up a significant proportion of work.

- Academics need to secure funds from governments and the private sector.
- NGOs need to secure funds from governments, stake holders, and the public.
- Environmental consultants need to secure contracts.
- Government scientists need to secure funds for basic and applied research.
- etc...

# Formatting is non-negotiable



THE UNIVERSITY OF BRITISH COLUMBIA  
Okanagan Campus

Before you start, spend time getting to know your eval. criteria.

DISCOVERY GRANTS MERIT INDICATORS						
Merit of the Proposal	The Merit Indicators should be used in conjunction with the Peer Review Manual, which outlines how reviewers arrive at a rating.					
	EXCEPTIONAL	OUTSTANDING	VERY STRONG	STRONG	MODERATE	INSUFFICIENT
	Proposed research program is clearly presented, is extremely original and innovative and is likely to have impact by leading to groundbreaking advances in the area and/or leading to a technology or policy that addresses socio-economic or environmental needs.	Proposed research program is clearly presented, is highly original and innovative and is likely to have impact by contributing to groundbreaking advances in the area, and/or leading to a technology or policy that addresses socio-economic or environmental needs.	Proposed research program is clearly presented, is original and innovative and is likely to have impact by leading to advancements and/or addressing socio-economic or environmental needs.	Proposed research program is clearly presented, is original and innovative and is likely to have impact and/or address socio-economic or environmental needs.	Proposed research program is clearly presented, has original and innovative aspects and may have impact and/or address socio-economic or environmental needs.	Proposed research program, as presented lacks clarity, and/or is of limited originality and innovation.
	Long-term vision and short-term objectives are clearly defined.	Long-term goals are clearly defined and short-term objectives are well planned.	Long-term goals are defined and short-term objectives are planned.	Long-term goals and short-term objectives are clearly described.	Long-term and short-term objectives are described.	Objectives are not clearly described and/or likely not attainable.
	The methodology is clearly defined and appropriate.	The methodology is clearly described and appropriate.	The methodology is described and appropriate.	The methodology is described and appropriate.	The methodology is partially described and/or appropriate.	The methodology is not clearly described and/or appropriate.  The application clearly demonstrates how the research activities to be supported are distinct from those funded (or applied for) by other sources.

... and the formatting requirements.

- Page length.
- Font size.
- Line spacing.
- etc...

Formatting requirements are  
**NOT** suggestions.

Grants are highly competitive. If your proposal isn't properly formatted it won't get funded.

Every grant call is different, you need to pitch for what they are looking for.

Clearly link the question and underlying theory with the methods you intend to use (i.e., don't frame your proposal around a question that would be better answered by a different approach).

Make clear predictions and link them to the types of data you intend on gathering.

Assume you only get 1 read.

This means that:

- Clarity is everything (your reader won't force themselves to find connections).
- Assume your reader knows nothing about your field.
- Avoid too many field-specific acronyms.
- Presentation says a lot about the submitting researcher(s) (if you're not rigorous at this stage why would I expect any difference at the research stage).

I've have had ~15 competitive grants funded... but I've also had probably twice as many rejected.

On average, success rates tend to be around 10-15% and hundreds of thousands of proposals are rejected every year.

Those rejections are tough to take, but you can learn a lot from rejected grants.

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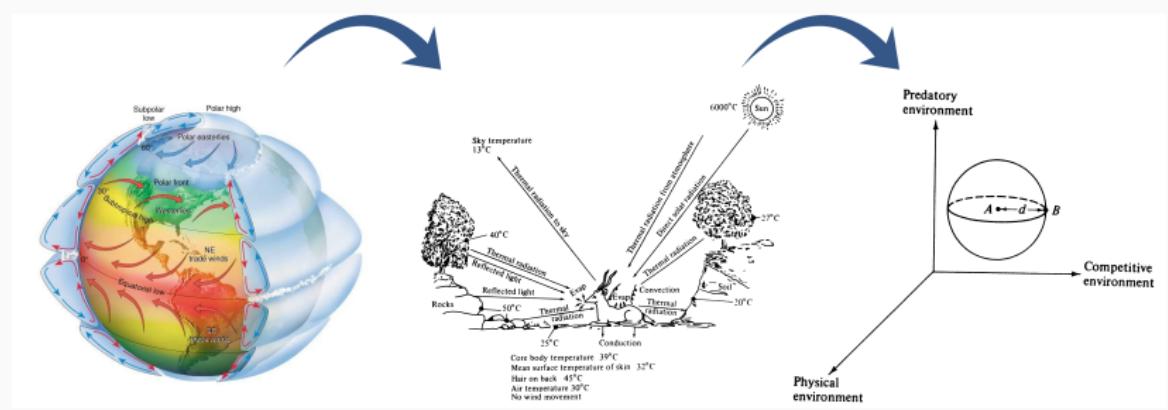
**Evolutionary Ecology** is focused on providing comprehensive answers to “Why?” questions.

	Dynamic	Static
Proximate (How)	Ontogeny (development)	Mechanism (causation)
Ultimate (Why)	Phylogeny (evolution)	Function (adaptation)

# Evolutionary ecology cont.



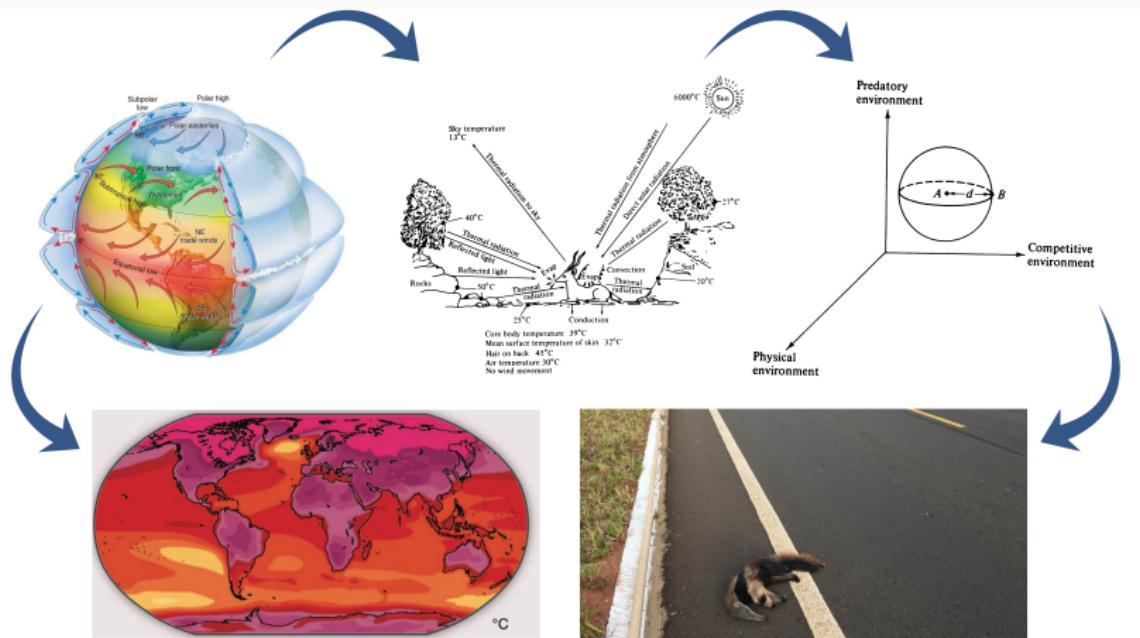
It's a massive field, and we only covered a small fraction of it but what unified the course was the bottom up approach we took.



# Evolutionary ecology cont.



... and also the approach we took when thinking about applied evolutionary ecology.



For the vast majority of questions we don't have that answer.

Although there are underlying principles, phrases like "it depends", "hasn't been tested", "we still don't know", "we need more data" were common.

Answering those questions is your job as the next generation of evolutionary ecologists.