

**ERS 401 – “The Course with Ever Shifting Names”**  
**(Sustainability Science and its Critiques; Sustainability Analysis; Sustainability Applications)**  
**Translational Ecology**

Tues (Background Lesson & Some Discussion) & Thurs (Discussion/Tasks/Actions) 1130-1250 RCH 308

The professor for the course is [Stephen D. Murphy](#), B.Sc. (Hons.), Ph.D. in Biology

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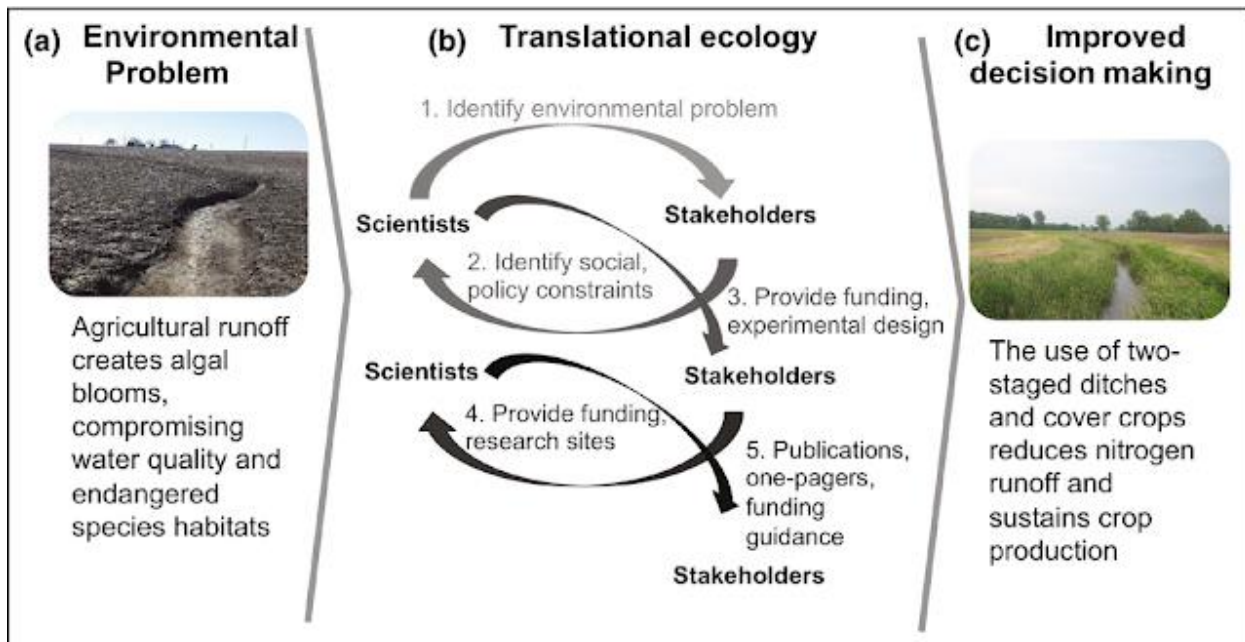
 @prof\_smurph;  profsmurph; see also  @CASIOPA\_ON

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Steve is a member of the Translational Ecology ad hoc group in the Ecological Society of America, Editor-in-Chief of Restoration Ecology, Chair of the Centre for Applied Sciences in Ontario Protected Areas.

ERS 401 will make use – in real-time - of the blog version based on Bill (WH) Schlesinger’s 2017 Translational ecology: Collected writings on contemporary environmental issues (International Ecology Unit, Luhe, Germany). The articles are found at <https://blogs.nicholas.duke.edu/citizenscientist/>

All readings will use be from sources available on-line via LEARN; there is no extra cost. We will use readings strategically – to inform and launch discussions *as opposed to memorizing or enduring them*.



Via Lauren Hallett et al. 2017. *Frontiers in Ecology and Environment* 15:578–586.

**This is the ERS 401 class schedule**

DATE/TOPIC READINGS FOR THE WEEK	DATE/CLASS ACTIVITIES	LEARNING OUTCOMES
07/01 Translational Ecology Schlesinger (2010) Collins et al (2011) McNie et al (2016) Biggs et al (2017) Chapin (2017) Jackson et al. (2017) Enquist et al. (2017) O'Reilly et al (2018) Wyborn et al. (2019)	09/01 Task: We'll do a callback to ERS 300, 301, and 400 and then reflect on what inspires you most and how you can translate it for a non-academic audience	Translate the term "translational ecology" and link it back to socioecological systems philosophy, history, analysis and theories of change (the core of ERS 3 <sup>rd</sup> and 4 <sup>th</sup> year)
14/01 Yes, there are jobs  Brunson & Baker (2010) Cedefop (2014) Schwartz et al. (2017)	16/01 Task: Design your ideal job (see also Conference Board of Canada website)	Figure out how to get a job, make some cash, save the planet, and maybe get your own reality show
21/01 The planet's on f**king fire!  Wall et al. (2017) Lewandowsky & Whitmarsh (2018) Littel et al. (2017) Lloyd & Oreskes (2018) Jacobsson (2019) Kirchmeier-Young et al (2019) Nye (2019) Pelenc et al (2019) Purvis et al (2019) Somerville (2019)	23/01 Discussion: Critiquing sustainability science, especially given the planet's on f**king fire	Figure out what the f**k we do now!
28/01 Beyond "meh" in learning and society  Tilbury (1995) Belovsky et al (2004) Blumstein & Saylan (2007) Sand-Jansen (2007) Hunter et al (2018; ch 1 only) Pennington et al (2019) Von Poeck (2019)	30/01 Task: Design an ideal translational ecology focused educational program for 2025	The world is changing fast; how would you keep pace with this?

<p>04/02 “First thing we do, let’s kill all the lawyers”</p> <p>Pressey et al. (2015) Armitage et al. (2018) Ash et al. (2018) Behagel et al. (2019) Ruseva et al. (2019)</p>	<p>06/02 Discussion: How does one subvert (positively) an already subverted legal system &amp; why is that relevant here?</p>	<p>People tend to dismiss dusty law books, arcane policy levers and governance as being irrelevant. Actually, manipulation of these leads to corruption and death.</p>
<p>11/02 Defeating BS/Stupidity</p> <p>Lafleur (1951) Gould (1996) Gibson (2011) Cook &amp; Lewandowsky (2011)</p>	<p>13/02 Task: Designing a strategy to defeat the Gish Gallop, Trump Trot, &amp; the General Model of Bullshit Asymmetry</p>	<p>How not to get sucked into other people’s agendas and allow them to ‘neg’ you endlessly</p>
<p>17/02 – 21/02 Family Day Stat Holiday (Monday) &amp; Winter Study Week (No Classes)</p>		
<p>25/02 Translational Ecology - social influencers before it was a thing</p> <p>Carson (1943) Evans (1946) Hardin (1968) Ehrlich &amp; Holdren (1972) Commoner (1972) Ehrlich (2010) Mahrt and Puschmann (2014) Scolere (2019)</p>	<p>27/02 Task: Design a rapid social media campaign for 2021</p>	<p>Social media is a mess and yet it has long been a thing; it is now a badly mutated thing so how does one control the beast?</p>
<p>03/03 Apocalypse now?</p> <p>Zencey (1988) Skurka et al (2018)</p>	<p>05/03 Discussion: Should we ever motivate by fear?</p>	<p>This will be a wide-ranging discussion of the idea of fear and apocalypse and its role in translational ecology</p>
<p>10/03 Apocalypse nope!</p> <p>Huber-Sannwald et al. (2012) Strunz et al (2019)</p>	<p>12/03 Task: Take any socioecological system of interest and translate it for citizens in real time</p>	<p>Let’s see if you figured out how one translates socioecological systems</p>
<p>17/03 I only have a hammer, and everything looks like a nail</p> <p>Hallett et al. (2017) Tank (2017) Swain (2018; <i>in Filho 2018</i>) Powell et al. (2019)</p>	<p>19/03 Task: What does training the next generation of translational ecologists really require?</p>	<p>Surprise! You and your predecessors have been trained as translational ecologists in SERS for about 50 years. So now what?</p>

<b>Your Fast-Forward Project is Due on 20/03 at 2000 h (8 PM)</b>		
<p>24/03 Throw a spanner in the works</p> <p>Cooke et al. (2016) Safford et al. (2017) Alexander et al. (2019) Cooke (2019)</p>	<p>26/03 Discussion: What actually makes someone an effective boundary-spanner?</p>	<p>On the heels of last week's training focus, let's take on the bigger picture of what this means</p>
<p>31/03 Get on with it, then</p> <p>Hornik et al. (2016) Lawson et al. (2017) Holzer et al. (2019) Horcea-Milcu et al. (2019) Rose et al. (2019) Sutherland et al. (2019)</p>	<p>02/04 Task: What one awesome thing will you do in the next 5 years?</p>	<p>Your term project was long-term. What will you do in the short-to-medium term?</p>

## **The Scope and Process of ERS 401.**

What we are doing here is termed ‘Translational Ecology’. While it does critique, analyze, and act upon the broad concept of sustainability, Translational Ecology is a more tractable approach. Translational ecology is a relatively new term (it may or may not be a new conceptual, theoretical or methodological framework though).

What is it?

This is it (straight from the brains of my friends/colleagues):

“Translational ecology is boundary-spanning environmental science that leads to actionable research focused on maintaining or enhancing the resilience of social-ecological systems. Using an adaptive and iterative mode of inquiry, it extends beyond traditional scientific boundaries. It provides accessible tools and frameworks that allow exchanges of knowledge among ecologists and intended beneficiaries of their science, to promote mutual learning and a shared sense of its utility.”

(<https://www.sesync.org/what-is-translational-ecology-definition>)

I take an ecumenical view of Translational Ecology. Being ‘boundary-spanning’, we probably don’t have to limit ourselves to the traditional, narrow view of ecology – anything that touches on society and environment is fair game in this concept and in ERS 401.

For me, it’s all about how we do what SERS does: Take the explanations from theoretical frameworks and apply them on the ground. While we often define boundaries around systems of interest and try and devise rules to make sense of the world, that’s just because we like convenience and comfort. Kind of like a security blanket for adults.

Upsetting those boundaries really does make people unhappy, mad, and even over-the-top enraged. Challenging the social order is especially risky, especially when those seeking to preserve it are always prone to casting themselves as being the disruptors. Think I’m wrong? Go on twitter and explain why transgender rights are sacrosanct. In about 30 seconds, you’ll get bombarded with people ALL CAPPING that there are only two genders, that Bob Q Deity says they will burn someplace nasty for that notion, that we need to protect freeze peach, demanding ‘debate me!’, committing the act of sealioning, and probably posting a whole pile of memes that were worn out even before 4chan existed.

I’m not so interested in argument for argument’s sake. but Translational Ecology does take the position that boundaries between disciplines or between scholarship and action are porous (and should be porous) at best. This is the last core course and (in 2020 for some but in 2021 for all) a brand new one. This course will be structured in some familiar ways (students may wish the occasional bout of PowerPoint and ostensibly wise analysis – no giggling please) but we’re going to this in more creative ways because in 4B, it’s time to cast off the shackles. I have structured it so that you will be able to gauge your progress (after all, there are grades to be had here) and to provide some whole-class exercises each week to, I hope, stir your interest. The way I will grade this follows on the next page.

## ERS 401 Grade Allocation

- 20% of final grade: Reflective yet pithy summations at the end of each week (due no later than 2000 h on the Sunday after that week's classes). I have a dropbox set up for each week. When I thought about setting the limit for this, I considered using twitter's 280-character limit. What I decided to do was play to SERS' (often undeserved) hippie reputation and decided to go with 420 characters (yes, ha, ha, ha – very funny). All you have to do is post your pithy observations after each week's classes to the dropbox. I'll leave some leeway so that if you miss a week or two, no issue. The basic math is that each week earns up to 2% (x 10 weeks). If you do 11 or 12, you get more - possibly getting up to 22/20. What am I looking for? Any insight related to that week's topic, discussions, and tasks. You can draw on outside sources or current events. I'm looking for serious summations so weak attempts at humour will be dismissed and no points for you (cue sad trombone). Beyond that, you can decide what you'd like to say. These are deliberately kept brief to (a) not overburden you, but more importantly (b) to ensure you can write in a substantive yet concise manner – that is what gets you attention, jobs, and so forth.
- 40% of final grade: Complete "The Fast-Forward Project". That's described on the next page. It is the big product for ERS 401. This is due in week 10 of classes (11 weeks into term, allowing for the extra week that is Winter Study Week). Get on with it now.
- 40% of final grade: Final exam during the April exam period (date TBD by Registrar's office). This will be based on class discussions, tasks, lessons, and readings (again, I don't dive into trivia – I'm looking for you to attend classes, read stuff strategically rather than like a novel, and be reflective and insightful). One question will be dependent on you preparing a reflection (of some substance) on a translational ecology event or idea you've come across outside of this course (and different from your project); in other words, I expect you to keep abreast of current events and figure out how to translate this into ideas relevant to ERS 401. The rest of the exam questions will be anchored to the substance of the classes but even there, these are not delimited by what I provide on slides or commentary because each week we have class discussions or tasks – and those form the basis of quite a lot of the answers on the final exam (yet another reason for you to attend classes regularly).

That's it. I kept it really simple – some breezy and pithy but trenchant observations each week, a major project that focuses on you doing something great that involves action, and a final exam to reflect on what has transpired in our time together.

We'll engage with quite a few readings and there are more resources on LEARN (some optional readings – but more than that). Note I wrote 'engage readings' not 'memorize every detail or read them like a boring novel'. The readings are to spur discussion; we'll home in on the stuff we think might be relevant in each.

The course is pretty open-ended beyond the above structure. The expectation is that you show the world why you are awesome now and how you will even get more awesome as you age.

The Fast Forward Project follows on the next page.

# *The Fast Forward Project*

For this final (soon to be core) course, the goal is for you to explore the meaning of “Translational Ecology” (sensu lato) in a manner that conveys a sense of urgency and ambition for you personally.

## “What do you want to do with your life?”

I thought a lot about the scope and even the name of this project: “Carpe Vita”, “Project Awesome”, “Project Thunberg”, “The Rachel Project”, “The Thoreau Project”, “The Anti-Asshole Project”, “The Project Formerly Known as Capstone”, “I’m Fresh Out of Good Names”, “In Search of Rosencrantz and Guildenstern”, “JoJo Dancer, Your Life is Calling”, “Vikings and Beekeepers”, “Pussywillows, Cattails (Soft Wind & Roses)” “Project Mark Metcalf”, “À la recherche du temps perdu? Non! À la recherche du temps futur!”

Some of these might be better names, others were just me being silly (no guessing as to which are which). Bonus points on the final exam if you can decipher what these allude to.

In the end, this project is about giving you the space and freedom to imagine what you might accomplish over the next 50 years. That’s the scope. That’s it.

The only requirements I have are these:

- It should be conceived as a big thing that you want to do – something that interests you and inspires you.
- It does not have to be written, necessarily, as a report. Oh, it can be if you wish but I’m thinking this should be something that is motivating and immersive – it could be conveyed via art, music, photography, video, or some other form of expression. It must be translational – it must move people to do something. It must be ecological but only in the broadest sense of that word. Ecological essentially means ‘house’ – our planet – so a broad connection to any kind of environment is acceptable; I recognize most of us default to something ‘natural’ and that’s good but you have license to explore and push the boundaries of what ‘environment’ means to you and others.

That’s it. Yes, really.

Now if you want some help visualizing what this thing might be, we'll be discussing that first day in class. For now, I can give you some examples I've been part of or been around here in SERS and beyond:

- A visualization of a string of interconnected parks transforming degraded areas, wending around working farms, augmenting urban areas; that was done via a large moving Lego set
- A series of paintings that depicted how ecofeminism has and could change society for the better
- A musical treatment of the life of Rachel Carson
- An entire treatment for a children's educational show
- A guide to how government works and how you can create effective policies that lead to action
- A demonstration project built to show how to restore habitat to attract migratory birds

There is no real word limit (because it might not be much about writing words) or anything. It has to be substantive and serious in its intent. Best advice is for you to discuss this during class and/or with me outside of class – we can tailor this to each of you and we can agree on the scope on an individual basis. This means great expectations and fulfillment, but I appreciate the open-ended nature might be pretty scary so a discussion with me will make it less scary.

### **Resources for You – University Policies, Your Rights, Mental Health Help, AccessAbility**

We used to have a mandatory 'advisory' from the Dean of Environment. That has been replaced with a webpage with many resources (policies, mental health help and so forth):

<https://uwaterloo.ca/environment/undergraduate-teaching-resources>

Please make all efforts to communicate with AccessAbility if there are acute or chronic struggles that affect your class attendance or course performance – I know it is tough to admit you need help or to trust anyone. The earlier we address issues and find a success path, the better; I am willing to assist and alter the standard path. There are cases where students prefer to talk to me directly; by all means, but please be aware you don't have to reveal anything personal or medical to get accommodations – that is why AccessAbility exists. We follow all policies on privacy and human rights.