Announcement - E555 Urban Ecology will be offered as a <u>Graduate Course only</u> Spring Semester 2019 – 3 cr. (Capacity is 12-14 students)

Lecture: Tuesdays 4-6:30pm, Tocqueville Room, Ostrom Workshop, 513 N. Park Avenue

<u>Instructor:</u> Burney Fischer, Clinical Professor Emeritus, School of Public and Environmental Affairs, bufische@indiana.edu

Prospectus: The emerging discipline of urban ecology, a subfield of ecology, deals with the interaction of organisms in an urban or urbanizing community and their interaction with that community. With over 50% of the world's population now living in urban or urbanizing areas, and urbanization of the landscape in the US expected to grow from 3.1% (2000) to 8.1% by 2050 (Nowak 2005), urban ecosystems are becoming a dominate landscape feature. These urban areas are influential well beyond their perceived borders and shape how many people view the built world. Research in urban ecology, urban ecosystems and in urban social-ecological systems is rapidly expanding with an ever broadening array of journals, books and other publications as well as new research centers and collaborative projects. For our purposes, urban ecology comprises both the traditional ecological understanding of interactions between and among organisms and their urban environment as well as the systems ecology perspective where the city itself is viewed as an ecosystem. These definitions refer to the ecology "in" and the ecology "of" cities respectively. In addition, we will close the course with a look at ecology "for" the city.

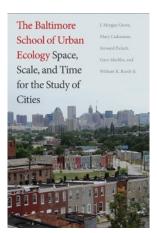
<u>Textbook</u>: No textbook for the course. We will develop a set of topics and associated guest speakers, and then teams will develop a set of focused readings to accompany each topic. We will search a daily blog – *The Nature of Cities* http://www.thenatureofcities.com/ for urban ecosystem related articles to bring relevance to our readings (we may find additional blogs to explore as well, see excerpts below for type of articles we will be reading/discussing).



A collective forum on cities as ecosystems, as designed and natural human habitat intimately connected to resilience, sustainability, and livability

Untapping the Potential of Science-Government Partnerships to Benefit Urban Nature Posted on <u>August 31, 2014</u> by <u>Chris Ives</u> and <u>Yvonne Lynch</u>

Promoting urban nature is a significant challenge for local government. As demonstrated by so many posts on this blog, it is evident that it consists of much more than simply protecting areas of high biodiversity from human activity; it is about enhancing and even creating novel forms of 'nature' to promote the environmental and social sustainability of citals for deades to come. Such a task is unparallelad intiz complexity and requires new knowledge to be a chieved. This challenge calls for a close and effective interaction between sicine and government, along the interaction between sicine and government, and academic researcher to co-produce knowledge and develop policy and programs that benefit urban nature remaiss unexplored. In this post, we outline some of the lessons learnt from our individual experience and provide a series of tips to help others harness the potential of local parameters and spowment in Melbourne and



Atlantic Cities: place matters & Economy Community, Housing, Arts & Lifestyle, Design, Technology, Politics, Neighborho

The Rise of 'Urban Ecology' by Eric Jaffe, Nov 30, 2012 Urbanization brings with it all sorts of effects on human behavior, but sometimes lost in the mix are the corresponding effects on plant and animal life. Understanding this ecological impact will become increasingly important as cities expand their environmental footprint and implement policies to address climate change. To date, however, the field of "urban ecology" has remained relatively quiet.

Earlier this year a trio of ecologists analyzed where other ecologists conducted their research and discovered that, by and large, it wasn't in cities. The group categorized some 2,500 studies published in ten influential ecology journals between 2004 and 2009 and found that only 4 percent targeted "densely settled" areas. Looking more closely ast studies of dense settlements, the researchers realized that many actually examined protected areas within a city — not really

Course Format & Style: This is an elective course, graduate students only, and it is assumed that enrolled students are interested in learning about and discussing the topic of urban ecology. A previous exposure to ecology is expected. Although the course will generally cover the topic of urban ecology, it will be flexible enough to allow for individual student outreach into topics of specific interest with regard to urban and urbanizing areas. The course will consist of one 2.5-hour class meeting per week, broken up into multiple sessions, which will be a combination of class discussion, student lead discussions, student presentations and hopefully a few visitors (in-person/online).

Students will prepare and post briefing papers on readings for class preview to focus the discussion on salient points and issues during the semester. Each student will prepare a professional review of a book, blog series, research program, etc. (mid-semester due date, can relate to your research paper) on a book/blog/research program of their choice and give a brief presentation. Each student will also prepare a research paper (original research, research literature review, blog suitable for submission or research proposal) on a topic of their choice and give a short presentation on their findings at the end of the semester. A goal of the research papers is a submission for publication (blog, journal articles, etc.) or conference presentation at, for example, an IUB graduate student research conference, the Indiana Academy of Science (Ecology or Environmental Quality Sections) or other similar venue. Classroom participation is critical for each student in the course; there will be no exams.