The Master of Arts in Ecology Evolution and Conservation Biology focuses on biological sciences and integrates environmental policy and economics concepts. This interdisciplinary approach provides students with a range of options for building their careers. Graduates may continue their education in a Ph.D. program or enter the job market directly as scientific researchers, teachers or administrators in a NGO or government agency dedicated to the conservation of natural resources. The M.A. program at E3B is project-based, meaning that all students must complete a capstone project as a major requirement for the degree. Students have the option of tailoring their course work to develop their interests, and to craft a capstone project that allows them to gain additional skills and experience. For additional information about the program please contact the M.A. program advisor (MAPA), Dr. Josh Drew.

The M.A. application deadline is January 15 each year.

News! There is a Con Bio Scholarship that may be available to cover M.A. students' tuition expenses up to \$6000. Please contact the <u>M.A. Program Advisor</u>

For complete information on the M.A. program, refer to the RESOURCES tab of the $\underline{E3B}$ Website

Highlights:

<u>Flexibility</u> – Learn new skills to prepare for a Ph.D.; Focus on translating science to policy before moving into government positions; Gain real world conservation experience to begin a career with conservation NGOs.

<u>Research Opportunities</u> – Partner with a diverse faculty studying microbes to macroecology, sharks to starlings, ethnobiology to ecosystem services. Our partnerships with key New York cultural institutions such as the Wildlife Conservation Society, The American Museum of Natural History, The New York Botanical Garden and the Ecohealth Alliance mean that students have access to world-class collections, cutting edge research facilities and field research across the globe.

<u>Support</u> – Although Columbia University is a large institution the M.A. program maintains the student-centered focus of a small program. We have small classes, a vibrant student body, a lecture series that draws top researchers from around the country and numerous opportunities for M.A. students to be intellectually and socially involved with the department. At Columbia you are not a face in the crowd and we will work with you to help you get where you want to be upon graduation.

Overview

ADVISORS AND COMMITTEES

All students need to find a project advisor, and with that advisor set up a committee as follows: Advisors must be selected in the first semester of study. Advisors need to be E3B/EICES faculty members. If you are uncertain of a faculty member's status, check with the Director of Administration, Director of Graduate Studies, or the MAPA. All students should have identified an advisor by the last day of class in the Fall term of their first year. If you are having problems finding an advisor please contact the MAPA.

A committee with 3 members (including advisor) must be formed before seriously planning for your capstone project. 2 members must be affiliated with E3B/EICES. You must have one core CU/E3B faculty member on your committee, unless otherwise approved by the E3B chair and MAPA. Ideally, the 3 members will be identified in the Fall term of the first year, but if that is not possible all students should have identified at least 2 members of their committees by the last day of the Add/Drop period in the Spring term of their first year. You should inform the MAPA about the composition of your committee as soon as any changes occur.

M.A. COURSE REQUIREMENTS

To earn their M.A. degree students must complete:

2 Resident Units (A Resident Unit (RU) is equal to one semester at full-time tuition.) 43 credits

A balance of elective courses (see below).

All students must complete the following Core Courses:

1) Fundamentals of Ecology (EEEB GR6112) and Fundamentals of Evolution (EEEB GR6110)

2) Conservation Biology (EEEB GR6905)

3) Two policy classes to be selected in consultation with your advisor and the MAPA

4) Four Semesters of Research Seminar (EEEB GR6300), 1 credit per semester. Students are excused for one of the four semesters if they spend a semester in the field (Research Semester). Consult with the MAPA if you need to be excused from registering.

5) Project development seminars (EEEB GR4850 and EEEB GR4851) for 3 credits each.6) Statistics

*In rare cases a student can petition to place out of these requirements. The petition is evaluated by the student's advisor, the MAPA, and the Chair and if significantly advanced training in ecology or evolution can be demonstrated, this requirement will be waived. Students that are granted the waiver will still need to make up for the 4 credits by taking additional elective courses.

Core courses account for 20 credits. Core course credits are reduced to fulfill the program requirements; students must complete the required credits with a combination of elective courses, directed readings and directed research.

The M.A. in Ecology Evolution and Conservation Biology provides for flexibility in tailoring the lineup of courses that is most appropriate for the student's interests, but it should include both Conservation science and Environmental policy courses. Make sure that you plan accordingly to fulfill this requirement, and check with the MAPA to make sure that you are registering for classes that are considered acceptable in each category. Work with your advisor and the MAPA to decide on a set of electives that best suits your interests and career goals.

Students can choose to substitute one of the electives in Conservation science with a directed reading or a directed research. Students cannot substitute any of the required electives in Environmental Policy with either a directed research or a directed reading. Considering an average of 3 credits per course, 5 electives will account for about 15

credits.

To make up for the total credits required for graduation, the student is free to select any additional course, directed reading and/or directed research, after discussing the matter with the MAPA.

THE CAPSTONE PROJECT

The Capstone Project (CP) gives students the opportunity to design, participate, and carry out a research, outreach, or education activity as the culmination of their training at E3B. The CP is designed to be flexible, allowing students to explore a variety of activities and potential outputs. Students must work with their advisors, committees, and the MAPA in identifying a suitable project. A project proposal must be approved by the committee and the MAPA by the end of the first year. Generally, the MAPA and the proposed research advisor will make the final decision about the proposed work and approve proposals that (a) are considered suitable for a M.A. degree project, and (b) are in line with the study program of the student.

M.A. THESIS

Students aiming for a thesis-based capstone project must develop a research proposal during the first semester of their first year. At the end of the semester, the research proposal will be submitted to the potential advisor and the MAPA for approval. Students pursuing a thesis-based CP will spend a considerable portion of their registered time working on research that leads to a final thesis. Research work for the thesis is generally carried out within the context of ongoing research activities of the E3B Department or the EICES partner institutions. Students are also welcome to discuss with the MAPA research options outside the Department and the EICES consortium. **SCHEDULING FIELD WORK** Fieldwork is generally carried out during the summer semester between year 1 and year 2. Students will get up to 12 credits for their fieldwork by registering for directed research in the following Fall semester. The faculty recognizes that it is sometimes difficult for students to complete all of their field research for the M.A. thesis in just one summer. Therefore, thesis-based M.A. students may request a Research semester, which allows them to spend one of their four semesters in the field conducting research, in addition to the summer period. Whether it is wise for a student to extend fieldwork in this manner is a decision to be taken carefully in consultation with the student's entire committee and the MAPA. A careful review of any outstanding core requirement will be performed before authorizing a student to take a Research semester. Students who spend one semester in the field will not be expected to register for the Research Seminar during that semester. **READING ASSISTANTSHIP** M.A. students have the option of registering with the Department for paid Reading Assistantship in undergraduate courses. Reading Assistants

support a course instructor throughout a semester. The Reading Assistants is support a course instructor throughout a semester. The Reading Assistantship will allow students to develop additional skills for a variety of professional directions that they may choose to follow. Reading Assistantships are voluntary and limited in number based on the needs of the department and allocations from the Graduate School of Arts and Sciences. The Director of Administration & Finance will send out a request during the

spring semester for interested students to indicate their availability during the following academic year.

INTERNSHIPS FOR M.A. STUDENTS Pending consultation with and approval of the MAPA, students may use internships as substitutions for elective coursework. Registration for Directed Research ensures that credit will be given for the work. **TRAVEL TO MEETINGS** Pending the availability of funds, M.A. students can receive up to \$450 from the department in support of travel to a scientific meeting (approved by the MAPA) any time during their 2-year studentship. In most cases, students are likely to attend meetings in their second year, when they have the greatest chance of presenting their own research (which is strongly encouraged!). The student must be enrolled in the M.A. program in order to be eligible for reimbursement. Reimbursements for travel and business expenses will be made AFTER the trip has occurred. Lodging, travel expenses and registration fees can be reimbursed.

PROGRESS REPORTS At least once a semester it is good practice to schedule a meeting with the MAPA to evaluate progress and discuss future options. The meetings are informal, but will help students keep on track with their studies. During the meeting the MAPA will update the student's records on his/her coursework, committee members, research planning and progress, etc. This information allows the faculty to assess a student's progress at regular intervals, and to intervene for both the students' and the graduate programs' benefit when conflicts or problems arise. There is also an expectation that at least twice a semester the student will meet with their research advisor to track progress both on classes but also on the specific research progress.

Admission Information

A background in ecology and evolutionary biology, including undergraduate courses in introductory biology and upper-division ecology, evolution, and genetics (or equivalents). GRE general test. Biology Subject test strongly recommended. Applicants are encouraged to contact potential faculty mentors before applying.

Application Form: For further information on how to apply, please follow the link below, which will lead you to the 'Prospective Students' page of the Graduate School of Arts and Sciences (GSAS) of Columbia University. GSAS manages all of the administrative aspect of our graduate programs. On the GSAS web site, you will be able to fill out an online application by following the link to the M.A. programs.

APPLY ONLINE NOW!

Fellowships

There are no fellowships available for the Master's program. All applicants are strongly encouraged to apply for outside sources of funding (i.e. EPA Science to Achieve Results Fellowship Program, NSF Graduate Fellowship Program).

Frequently Asked Questions

Can't find your answer? Check the FAQ page of the Graduate School of Art and Sciences (GSAS) website for additional information on administrative matters and on the registration process. Alternatively send us an Email.

- 1. What is the application deadline? The M.A. application deadline is January 15th.
- 2. Can I apply for Spring admission? There is no Spring admission for the M.A. program.
- 3. Is there a part-time option for the M.A. program? Yes. Further information can be found on the GSAS web site.
- How competitive is the admissions process? Admission is competitive. In recent years, about 30% of applicants were accepted into the program - but the applicants are a self-selected and talented pool of potential students.
- 5. Should I visit?

Visiting Columbia is an excellent idea. A visit will allow you to get a first-hand and direct impression of our program, department, faculty and students. It will also help you decide if New York City is for you. Before coming to visit, arrange appointments with faculty whose interests match yours.

- 6. Does Columbia provide housing for M.A. students? Housing is not guaranteed for Master's students, but students who do not get campus housing are generally able to find a place nearby.
- 7. What is an RU?

RU, or Residence Unit, and ER, or Extended Residence, are registration categories tied into tuition fees. A Residence Unit is equivalent to full-time registration for a semester. 2 RU's are a mandatory requirement for the M.A. degree (in Year 1). In the second year M.A. students register for Extended Residence, this allows them to register for classes at a reduced cost relative to the RU tuition.

- 8. What type of employment would I qualify for after the M.A. degree? Although our program is relatively young, we can report that on average, 90 percent of our graduates are either employed or have been accepted into a Ph.D. program. Our students are pursuing careers in government, NGOs, education, and research.
- 9. How many students are in the program? There are currently 27 students in the program.
- 10. Can MA students fund their education through teaching assistantships?

No, this is not possible at Columbia. Nevertheless M.A. students are offered the possibility of registering with the Department for a paid Reading Assistantship in undergraduate courses.

- 11. How long does it take to finish the M.A. degree? Two years. Part time registration is possible, which would extend this period, but the degree must be finished within 4 years.
- 12. Can adjunct faculty be an M.A. student's thesis advisor? Yes, faculty members listed in the GSAS handbook could be approved E3B advisers.
- 13. You encourage prospective students to seek faculty mentors for their future thesis research. How do I go about this? A good starting point is the faculty page of the E3B website. You'll find short bios which include research interests. Send an Email to the faculty members that share your same interests and inquire about projects and opportunities. Don't be discouraged if you don't get replies, all of our faculty have pretty busy schedules and may need a reminder to follow up. To ensure better response rates, make sure your emails are stimulating and clearly state your interests.