

*Application for Undergraduate Research/Artist-in-Residence Fellowship
at the Bowdoin Scientific Station on Kent Island
Summer 2009*

Name _____

Home address _____

Home phone _____

College address _____

College phone _____ E-mail _____

Date of birth _____ Class Year _____

Major/s _____ GPA _____

Career Aspirations _____

Are you applying for a research fellowship or artist-in-residence
fellowship? Research Art

Previous Research/Artistic outside of classes:

Previous work
experience _____

Have you been to Kent Island before? Y N

If so, with whom did you go? _____

Have you spent time living in “rustic conditions” (e.g., no running water, electricity, cell phone coverage, flush toilets, TV, or internet access)? Y N

Describe: _____

Skills and/or certifications relevant to working at a remote island field station (e.g., electronics, GIS, first aid, boating safety)?

Describe:_____

Hobbies or musical interests? _____

Do you enjoy cooking? Y N

Favorite Meal to cook?_____

Any health problems that might limit your participation in active field work or be aggravated on a cold, damp island?

Specific project/s with which you would like to be involved, in order of preference (see following page):

Names of two professors who could serve as references:

What goal would this fellowship help you achieve (e.g., acquire specific skills, conduct field research for an honors thesis, produce art for exhibition on campus, etc.)?

Available dates: from _____ until _____

Please send your application to **Damon Gannon, Bowdoin Scientific Station, c/o Dept. of Biology, Bowdoin College, 6500 College Station, Brunswick, ME 04011**. Application Deadline is **March 2, 2009**. Final selections will be made and notifications sent by March 20, 2009.

Please specify which project or projects interest you. Because of the field station's small size, only a limited number of students can participate in the summer program. If this summer does not work out for you, please don't hesitate to apply in future years.

Depending upon the availability of funds, stipends will be about \$2200 per student for the summer, with free room, board, and transportation between Brunswick and Kent Island. The field season is approximately two months. We travel as a group from Bowdoin to Kent Island on Memorial Day and return the last Saturday in July.

Applications are open to students from any class or major, however juniors who are considering honors research are particularly encouraged to apply. Potential honors students should contact prospective faculty supervisors as soon as possible (before March 2nd, ideally).

Questions about this opportunity can be addressed to Damon Gannon (dgannon@bowdoin.edu, campus phone extension 4267).

Potential Student Projects
Bowdoin Scientific Station
2009

1. **Artist-in-residence** (up to 2 positions). Must be able to work independently and creatively, in any field of visual arts. Basic studio, inspirational surroundings, and materials and supplies available.
2. **Population biology/behavioral ecology of Savannah Sparrows** (up to 2 positions). Involves banding adults and nestlings, spending long hours hunting for cryptic nests in the grass, censusing populations and mapping sparrow territories, plus an independent project (see Honors Theses & publications by Peter Hodum, Cheryl Schulz, Josh Lawler, Ralph Rynning, Jeff Sevigny, Corey Freeman, Patrick Kane, Meredith Swett, Janet Beagley, Kim Tice, Kevin Oh, Rachel Seabury, Christine Caron, Bob Zaino, Iris Levin, and Kathryn “Sami” Nichols). It is recommended that students interested in this project contact Dr. Wheelwright before application decisions are made (March 2nd).
3. **Population biology, reproductive biology, and/or physiological ecology of Leach's Storm-Petrels** (up to 2 positions). Involves banding adults and nestlings, checking burrow nests for egg-laying and hatching, marking and mapping burrows, and transcribing data into long-term database.
4. **Population biology and reproductive ecology of Tree Swallows** (1 half-time position). Involves banding adults and nestlings, checking nest boxes daily for reproductive activity, and conducting experimental manipulations, including independent project (see Honors Theses by Amy Lewis, Dan Harrington, Peter Johnston, Taryn Krueger).
5. **Intertidal Ecology.** Kent Island hosts a diversity of intertidal habitats, including sandy beaches, cobble beaches, rocky shore, and soft substrate. Studies could be focus on invertebrates, algal species, invasive species, or species interactions. There is a complete collection of herbarium sheets of the marine algae, the marine invertebrates are well-known, and we now have a simple lab with aquaria. In the past, students have studied barnacle behavior and energetics, as well as intertidal community structure. The Bay of Fundy is an excellent location for intertidal studies.
6. **Plant/Forest Ecology.** May involve establishing experimental plots to examine regeneration of plants following fire, grazing by snowshoe hares, and other disturbances; documenting the spatial pattern and severity of damage to white spruce forest caused by bark beetle infestation; or describing the distribution and basic natural history of particular species.

7. **Ecology of Fish Communities in Three Islands Harbor & Kent Island Basin.** Using various types of nets and traps to document the spatial and temporal occurrences of fishes in the waters surrounding Kent Island.
8. **Common Eider Nesting Ecology.** Counting nests and documenting clutch size, predation rates, fledging success, nest habitat selection, and crèche habitat selection.
9. **Use of Island Wakes Around Kent Island by harbor porpoises, seabirds, seals, and whales.** As the tide flows by Kent Island, it creates an island wake, or tidal eddy. These oceanographic features often concentrate plankton and, therefore, attract higher-level consumers. This project will use shore-based spotting scopes to document the occurrence of upper trophic level consumers relative to tidal stage and island wake development.
10. **Fungus, moss or lichen ecology.** May involve establishing experimental plots to examine habitat selection, community ecology, or disturbance ecology; conducting a taxonomic inventory; or describing the distribution and basic natural history of fungi or lichens (See honors work by Bier Kraichak [’08]). Requires ability to carry out well-planned study with minimal supervision.
11. **Insect Ecology** (e.g., pollination, herbivory, island biogeography). Involves observations of plant-insect interactions on Kent Island and neighboring islands. Requires ability to carry out well-planned study with minimal supervision. There is a complete insect reference collection at Kent Island (see Honors Theses, publications by Tim Smith, Alex Wild, Andy Zink, Kyle Apigian).
12. **Electrical Power Assessment for BSS.** Conduct energy audit, assess future energy needs, and evaluate feasibility of using wind power.
13. **Marine Debris.** Assess nature, origin, and amount of marine debris washed up on Three Islands. Quantify economic losses to fishing and aquaculture industries due to lost gear.
14. **Other independent research** (please specify project and likely advisor). Possibilities include study of forest bird communities, muskrat ecology, bat ecology, Ravens foraging & nesting ecology, common tern nesting ecology, plant physiological ecology, geology, meteorology, among many others. See http://academic.bowdoin.edu/kent_island for ideas.