Name and Title: Chelsea M. Rochman, Assistant Professor
Department: Ecology and Evolutionary Biology

TITLE OF RESEARCH PROJECT: Sources and Fate of Microplastics in Marine and Freshwater Ecosystems

Number of 299Y Spots: 3
Number of 399Y Spots: 3

OBJECTIVES AND METHODOLOGY:
The Rochman lab researches the sources, fate and impacts of microplastics in aquatic habitats. We receive and collect samples of fish, plankton, sediments, snow, ice and water from around the world. These samples all need to be analyzed for microplastics. This entails extracting the microplastic from the matrix, identifying it as plastic via microscopy, photographing and measuring each particle of microplastic found in each sample and recording the data (# of particles, plastic type and size).

DESCRIPTION OF STUDENT PARTICIPATION:
Each student will have an opportunity to lead their own part of the project by independently taking on one sample set. ROP students will be involved in the design and execution of analyses, first under the supervision of the PI or a graduate student or postdoc and then more independently. Students may assume primary responsibility for data collection and care of lab equipment. Students will be expected to participate in lab meetings (including giving a presentation), carry out analyses in a meticulous and timely manner, to make a poster for the ROP poster fair, and to write a final report.

MARKING SCHEME (assignments with weight and due date):

Safety Training 10%
Biweekly meeting with PI 10%
Three-page description of proposed project (May 17th, 2019) 15%
Completion of proposed experiment(s), following protocols and collecting data with attention to detail (ongoing) 35%
Poster for ROP fair (early March, 2020) 10%
Final report, including a detailed explanation of all methods and all data in spreadsheet format (August 7, 2019) 20%