

Bumpus Graduate Student Symposium

1:30 – 4:00 pm, September 4, 2019

Room 237 and Atrium, Cathy '83 and Marc '81 Lasry Center for Bioscience

Biology Department, Clark University



Hermon Carey Bumpus¹

Oral presentations (Room 237)

			Lab:
1:30-1:45	Abhinav Sur	Investigating cellular and molecular mechanisms underlying neurogenesis in the annelid <i>Capitella teleta</i>	Meyer
1:45-2:00	Samantha Reed	Mechanisms determining successful running on water in the quadrupedal lizard, <i>Anolis sagrei</i>	Bergmann
2:00-2:15	Zaza Gelashvili	Determining the phenotypic effects of methylation by DnmA in <i>Dictyostelium discoideum</i>	Larochelle
2:15-2:30	Linnea Menin	Comparing chemical properties and microbial communities across Massachusetts kettle ponds	Ahlgren
2:30-2:45	Daniel Klonaros	Gene regulatory interactions as exemplified by <i>D. melanogaster</i> Abd-B enhancers - A systems biology analysis	Drewell
2:45-3:00	Lauren Liderman	Shiitake and friends: exploring the phylogenetic diversity of the genus <i>Lentinula</i>	Hibbett

Posters (Atrium)

3:00-4:00			
1	Ashley Renfro	Have the worms lost their minds?: Investigating the role of Ct-neurogenin in neural development	Meyer
2	Eunmi Jeong	Let's fish out the potential binding partners of Src1 in <i>Dictyostelium discoideum!</i>	Larochelle
3	Hector Bucaro	Investigation of the nucleolar targeting signals of DdSrc1 in <i>Dictyostelium discoideum</i>	Larochelle
4	Sean Patev	Shiitake and its relatives, progress on 25 new genomes in <i>Lentinula</i>	Hibbett
5	Anika Wohlleben	Host-parasite Interaction in the <i>Gasterosteus aculeatus</i> - <i>Schistocephalus solidus</i> system	Foster
6	Christina Bardjis	The role of predation threat in the development of antipredator behavior	Foster

7	Dale Stevens	Behavioral responses to chemical cues associated with a novel invasive predator	Foster
8	Jivanna Mason	Investigating trout predation as a selective pressure on the brain size of threespine stickleback	Foster
9	Regan Conrad	Creation of an image processing pipeline for analysis of <i>D. melanogaster</i> embryos	Drewell
10	Xiaoli Mo	Genomic DNA methylation in <i>Dictyostelium discoideum</i>	Drewell
11	Amy Cheu	Ontogenetic allometry of locomotor performance in basilisks	Bergmann
12	Sara Mann	Convergent evolution of snake-like body shapes in squamates: a comparison of locomotion	Bergmann
13	Kayleigh McHugh	Asymmetric morphological response of threespine stickleback to a novel invasive predator	Baker
14	Emily Dart	T4 cyanophage at the San Pedro Ocean Time Series: specialists, generalists, and one-shot-wonders	Ahlgren
15	Shafer Belisle	Genomic signatures and growth characteristics of low-iron adapted ecotypes of marine <i>Synechococcus</i>	Ahlgren

Who was Hermon Carey Bumpus?

Hermon Carey Bumpus (1862-1943) was born in Buckfield, Maine, and grew up in Dorchester and Boston. His father was a “much loved Boston city missionary—an unordained pastor, his mother a woman of marked ability and vision, a former teacher.”² Early on, Bumpus demonstrated an interest in natural history. He entered Brown University in 1879, graduated in 1884, and stayed on for several years as a graduate student, instructor, and assistant to the zoologist Alpheus Spring Packard (one of the founders of the *American Naturalist*). Bumpus taught zoology at Olivet College in Michigan, from 1886 to 1889. “A year earlier, Clark University had been founded in Worcester, Massachusetts, and Bumpus was anxious to study with the notable group of scholars in biology which had been assembled there. Accordingly, he left Olivet and brought his wife and child back east to live on a \$600 stipend while he earned his Ph.D. degree. With two years of previous graduate study at Brown and a notable thesis on the American lobster, he became the recipient of the first Ph.D. degree from Clark University.”³

From Clark, Bumpus went on to become Professor of Comparative Zoology at Brown, Assistant Director of the Marine Biological Laboratory in Woods Hole (1893-1895), Director of the Biological Laboratory of the U.S. Fish Commission, Director of the American Museum of Natural History, Business Manager of the University of Wisconsin (1911-1914), and the fifth President of Tufts College (1915-1919). Although his specialty was invertebrate zoology, Bumpus’s most lasting scientific contributions may have been his studies on natural selection in sparrows.⁴ A biography was published by his son, Hermon C. Bumpus, Jr., in 1947.⁵

¹ Image: Anderson, TR. Professor Bumpus and his sparrows. American Ornithological Society, History of Ornithology. March 2018 <https://amornithhistory.org/2018/03/>

² Mead, AD. 1944. Obituary: Hermon Carey Bumpus May 5, 1862-June 21, 1943. *Science* 99 no. 2559: 28-30.

³ *Encyclopedia Brunoniana*: Bumpus, Hermon Carey. https://www.brown.edu/Administration/News_Bureau/Databases/Encyclopedia/

⁴ Bumpus HC. 1899. The elimination of the unfit as illustrated by the introduced sparrow, *Passer domesticus*. Biological Lectures from the Marine Biological Laboratory of Woods Holl, Mass. 1898, pp 209-228.

⁵ Bumpus, HC, Jr. Hermon Carey Bumpus, Yankee Naturalist. Minneapolis: University of Minnesota Press, 1947. <https://muse.jhu.edu/>.