Bloom-Hays Grant Recipients 2020

2020 Bloom-Hays Ecological Research Grant: Six excellent student proposals were selected for funding by the Sea and Sage Science Committee. The objective of the Bloom-Hays Ecological Research Grant is to advance ecological research, particularly research related to avian species and the natural communities upon which they depend, by providing funds or supplies to support research activities benefitting native species and habitats in Southern California.

• **Timothy Brown, University of California, Santa Cruz (PhD),** $2,500, *Climate Change and the Continent’s Highest-elevation Birds: North America’s Rosy-Finches on the Escalator to Extinction.* Timothy is studying alpine wood webs, specifically snowpack associated sources, to determine the connection with the distribution of rosy-finches in the Sierra Nevada. The study would help predict distributional shifts for breeding alpine songbirds under various climate change scenarios.

• **Alexandra Gresham, California Polytechnical University, Pomona (MS),** $1,330, *Lead Toxicity and its effects in the California Turkey Vulture.* Alexandra will take blood samples from resident and migratory turkey vultures to compare their blood lead levels and oxidative stress. It is expected that the study will show that local environmental protective measures are inadequate for long-distance migrants and a flyway approach to conservation is needed.

• **Amanda Martinez, California State University, Long Beach (MS),** $1,170, *Prey Availability as a Correlate of Nesting Success for the California Least Tern (Sternula antillarum browni).* Amanda will be studying California least terns at the Port of Los Angeles, Seal Beach, Huntington Beach, and Burris Basin. She will be determining the availability of fusiform (slender-bodied) fish near the nest colonies through each nesting stage and will correlate this with nest success at the colonies.

• **Janine Fischer, University of California, Los Angeles (PhD),** $2,000, *Effects of Competitor Familiarization on Pacific Pocket Mouse Reintroduction Success.* Janine will be conducting familiarization experiments between captive-bred Pacific pocket mouse (PPM) and Dulzura kangaroo rat at the San Diego Zoo Safari Park. These individuals will then be introduced into plots at the Laguna Canyon Wilderness Park. The study will determine if familiarizing PPM with rodents that they co-Occur with would lower their stress and increase the reintroduction success.

• **Kaleigh Russell, University of California, Riverside (PhD),** $1,500, *Pollinator Diversity in the Southern California Desert.* Kaleigh will examine pollinator diversity across an elevational gradient at Boyd Deep Canyon Reserve to study whether temperature changes related to climate change affects bee diversity more in disturbed area compared to reserve lands.

• **Racine Rangel, University of California, Irvine (PhD),** $1,500, *Do climate conditions affect host-parasite relationships in marine snails?* Grazing rates by marine snails have potential to restructure the macroalgal community (kelp), an important marine habitat. Racine will study the parasite prevalence on Santa Catalina Island; quantify the effects of increasing temperature and parasite loads on grazing rates; and will assess whether the effects of increasing temperature on increasing parasite infection differs with conservation status (Marine Protected Areas).