



Oceans Unmanned, Inc.
Santa Barbara, CA
<http://oceansunmanned.org>

Sept. 19, 2017

Contact: Matt Pickett, 805-705-9802

Oceans Unmanned Collaborates with NOAA to Map Salmon Habitat with UAS

Oceans Unmanned, Inc. successfully completed an innovative collaborative research project this week to utilize Unmanned Aircraft Systems (UAS) or drones, to map critical salmon habitat along the upper Sacramento River in northern California. The project utilized both fixed-wing and rotary-wing UAS outfitted with cameras, thermal sensors, and a hyperspectral imaging system to test new approaches for mapping key salmon habitat variables including bathymetry and water temperatures.

In partnership with NOAA National Marine Fisheries Service (NMFS), and Headwall Photonics, Oceans Unmanned flew multiple successful flights over two distinct areas along the river utilizing an RGB camera and a thermal sensor to evaluate systems and payloads and develop procedures and protocols for mapping critical salmon habitats.

Sacramento River winter-run Chinook salmon from California's Central Valley are listed under the Endangered Species Act (ESA) and are one of NOAA's Species in the Spotlight, the eight species at greatest risk of extinction in the near future. Currently, the lack of information on winter-run habitat conditions is a critical data gap. The tools and techniques developed in this project are capable of evaluating that habitat, in addition they have broader relevance for other salmonids and smaller rivers and tributaries.

The program has three primary goals: Increase public awareness of existing marine resource protection regulations and policies that apply to research and recreational drone use; Engage and educate recreational drone operators to respect ocean wildlife; and Encourage federal and state marine resource management agencies to modernize and refine existing policies and regulations to address the potential disturbance of drone use. While initially focused on coastal and marine resources, the program hopes to expand to address terrestrial disturbance issues in the future.

"The senseFly eBee is our go-to platform for most mapping projects we support." said Brian Taggart, Director of Oceans Unmanned. "This remote river area was extremely challenging to access and operate in, but the eBee is rugged, capable, and easy to interface with and adapt to real time challenges in the field."

The senseFly eBee is a 2-pound, battery-powered aircraft with a four-foot wingspan, and can be equipped with a variety of payloads. The aircraft is hand-launched for easy deployment and can land accurately in a confined field or beach. It operates fully autonomously and has a flight time of up to sixty minutes.

Oceans Unmanned, Inc., a 501(C)(3) non-profit organization, facilitates the use of unmanned technologies and promotes their safe and environmentally conscious operation to protect the ocean and coastal marine environment.

MEDIA: Images and video available on request

Follow on Twitter: @OceansUnmanned

On the web: <http://oceansunmanned.org>

#