

News Release



Pacific Region

Oregon Coast National Wildlife Refuge Complex

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U.S. Fish and Wildlife Service and Coos Health and Wellness Find Low Numbers of Mosquitos at Bandon Marsh National Wildlife Refuge

Bandon, Ore. – In April, monitoring began for mosquito larvae in the Ni-les'tun Unit of the Bandon Marsh National Wildlife Refuge. Monitoring has detected very few saltmarsh mosquito larvae within the marsh compared to last year. The low number of mosquitoes this year is a direct result of the intensive efforts last year to kill larvae before they could develop into adults and fly off and the excavation of almost 23 miles of new tidal channels that drained most of mosquito breeding habitat. Monitoring will continue throughout the summer to identify if there is mosquito breeding habitat that requires larvicide treatment.

“We fully expect to see further declines in mosquito numbers as we dig additional channels this summer to drain remaining mosquito habitat,” says Eric Mruz, Bandon Marsh Refuge Manager. “These additional channels will also improve tidal exchange within the marsh, advancing the restoration process by improving habitat for other species dependent on the tidal marsh.”

Funded by the Service and under contract with Coos Health and Wellness, Vector Disease Control International (VDCI) is conducting the monitoring and larvicide treatments. As was done in 2014, when larvae reach a predetermined threshold density they are treated with the larvicide *Bacillus thuringiensis israelensis*, or Bti, by hand or backpack spreader. Bti is a naturally derived larvicide that kills mosquito larvae but is non-toxic to bees, moths, butterflies, fish, mammals, and birds when applied.

VDCI conducts weekly monitoring of adult mosquitoes by setting specially designed traps in seven locations in and near the refuge. After three trapping nights, only a single adult saltmarsh mosquito has been captured, along with larger numbers of other mosquito species that do not breed in saltmarsh. Last year in May, traps set in the same locations captured up to 160 saltmarsh mosquitoes in one trap set for one night. The most abundant adult mosquitos captured this season are a species of forest-breeding mosquito typical to the area, and not the aggressive saltmarsh species.

Saltmarsh mosquito eggs are stimulated to hatch when they are inundated by semi-monthly high tides, and there have been three hatches so far this season, each of which was treated with Bti by VDCI technicians. The most

recent treatment covered an estimated 13 acres of widely scattered ponds with low densities of larvae. This compares to the maximum of over 250 acres needing treatment last year.

In addition to monitoring and treatment, channel digging continues to be a priority for reducing mosquito production on the marsh. As the monitoring reveals where mosquito breeding pools still occur, channels will be designed and excavated to drain those pools when practical, further reducing the capacity of the marsh to support saltmarsh mosquitoes. Hand digging of additional channels has been ongoing this spring. Machine excavation of additional drainage channels will begin the second week of June.

Refuge Manager Eric Mruz or other refuge staff will be joining the refuge friends group, Shoreline Education for Awareness, at a booth at the Bandon farmer's market the first Friday of every month and welcomes questions about the Refuge.

For updates on the Integrated Marsh Management Approach at Bandon Marsh Refuge:

<http://www.fws.gov/oregoncoast/bandonmarsh/Mosquito.html>

Coos Health and Wellness – Public Health division:

<http://www.co.coos.or.us/Departments/cooshealthwellness/PublicHealth/EnvironmentalHealth/Mosquito-Vector.aspx>

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