

SPECIES FACT SHEET

Common Name: Siuslaw Sand Tiger Beetle or Siuslaw Hairy-necked Tiger Beetle

Scientific Name: *Cicindela hirticollis siuslawensis* (Graves, Krejci, and Graves 1988)

Phylum: Arthropoda

Class: Insecta

Order: Coleoptera

Family: Cicindelidae

Technical Description:

Cicindela hirticollis siuslawensis is 10-15 mm long with tufts of long white hairs on the side of the thorax and a front marking shaped roughly in the form of a G. This front marking has a very small or absent tail. The beetle's elytra (outer wings) are brownish green to green with thin maculations (Pearson, et al. 2006), although Mike Kippenhan (personal communication) has never observed a green *C. h. siuslawensis* and believes they tend to be browner to brownish green.

The markings on *C. h. siuslawensis* are distinct; it is unlikely to be confused with any other tiger beetle species that lives within its range.

There is another sub-species of *C. hirticollis* in Oregon. *C. h. couleensis* is known along sandy beaches of the Columbia and Snake rivers in eastern Washington and Oregon extending west to Cowlitz County Washington where individuals exhibit some intergrade characters with *C. h. siuslawensis*. However, there are no populations of *C. h. couleensis* within 100 km of the nearest *C. h. siuslawensis* populations (Pearson, et al. 2006).

Life History:

Larval burrows are typically shallow (8-20cm) and with a high density along sandy soils near surface water or where the subsurface soil is constantly moist. Larvae are known to crawl across the soil surface to relocate their burrow in response to changing soil moisture levels (Pearson, et al. 2006).

C. hirticollis will overwinter as either an adult or a larva. Adults are active from April to October with two peaks: one from April to late June and the other from early August to September (Pearson, et al. 2006).

Tiger beetles are predators as both larvae and adults. Both eat a variety of insects and other invertebrates. Larvae reach out from burrows to ambush passing prey. Adult are fast runners they chase down and subdue prey. Adults will also fly (Pearson, et al. 2006).

Range, Distribution, and Abundance:

Historic –

C. h. siuslawensis is known from Pacific Ocean beaches at the mouths of rivers from the central Washington coast south to Eureka, California (Pearson, et al. 2006).

Specimens have been collected from a variety of sites in Oregon including: Twin Rocks (7/10/40) and Sand Lake (8/24/41) in Tillamook County; Waldport (06/22/30, 8/10/41, and 7/5/42) in Lincoln County; and Siltcoos Outlet in Lane County (5/18/57) (OSU Collection).

In Washington there is a collected specimen from Ocean Park (7/4/35) in Pacific County (OSU Collection).

In California there are few collection records and none recently (Knisley personal communication).

Current -

C. h. siuslawensis has been extirpated from most of its historic sites and is considered rare (Pearson, et al. 2006).

Recent sightings have been made in Oregon at Johnson Creek near the Golf Course in Bandon in Coos County (Kippenhan personal communication) and at the New River Area of Critical Environmental Concern at the Storm Ranch section just north of the New River boat launch, approximately 8 miles south of Bandon in Coos County (Lyons personal communication).

Mike Kippenhan noted that he had looked at all the sites north of Florence and could not find any individuals of this sub-species. He believes those areas are too disturbed by human activity, especially Off Road Vehicle (ORV) use, to support *C. h. siuslawensis*. He has also looked at Cape Blanco and the Pistol River and did not find any individuals (Kippenhan personal communication).

In Washington, Mike Kippenhan collected a specimen near Pacific Beach in Grays Harbor County but believes that the sub-species has been extirpated from most Washington sites (Kippenhan personal communication).

Habitat Associations:

The immediate sandy edge of river mouths on beaches along the Pacific Ocean. (Pearson, et al. 2006).

Threats:

Physical disturbance of its sandy beach habitat, particularly by human activity such as ORV use is a major threat (Kippenhan personal communication).

In addition to physical disturbances it has a narrow range of moisture tolerance that make it susceptible to droughts, pollution, pesticides, river damming, channelization, and other shoreline modification by humans (Pearson, et al. 2006).

Several other sub-species of *C. hirticollis* have experienced similar declines. According to Pearson, et al. (2006) the species has disappeared from many of its former habitats in New England. Many Great lakes populations have disappeared in the last 50 years. The coastal Pacific forms are rare and difficult to locate in California. The Sacramento Valley Hairy-necked Tiger Beetle, *C. h. abrupta*, is known from only a few sites in Northern California. In a recent survey of historic sites, no adults or larvae were found (Knisley, et al. 2005 and Pearson, et al. 2006).

Conservation Considerations:

Surveys are needed to verify the current range of *C. h. siuslawensis* along the Oregon and Washington coast.

Discourage or prohibit ORV use or other human activity that will physically disturb the sandy beaches at known locations of *C. h. siuslawensis*.

Other pertinent information (includes references to Survey Protocols, etc):**Conservation status:**

Heritage Global Rank: G5T1T2

Heritage State Rank: Oregon (S1S2), Washington (S1S2)

Survey Protocol

There is no specific survey protocol for this species. A protocol would include searching potential habitat and collecting tiger beetles that match the *Cicindela hirticollis siuslawensis* description for identification by a qualified individual. In Pearson, et al. 2006, there is a section describing how to observe and study tiger beetles; this publication may inform the development of a standard survey protocol.

Key to Identification of the Species

See Graves, et al. 2005 and Pearson, et al. 2006 for a key to the species and sub-species in this genus. *Cicindela hirticollis siuslawensis* is 10-15 mm long with tufts of long white hairs on the side of the thorax and a front maculation shaped roughly in the form of a G. Its dorsal side is brownish green to green with thin maculations. It has a very small or absent tail on its front maculation. (Pearson, et al. 2006).

ATTACHMENTS:

- (1) List of Pertinent References/Literature/Pertinent or knowledgeable contacts**
- (2) Map of Range and Distribution**
- (3) Photos**

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Pearson, David L., C. Barry Knisley, and Charles J. Kazilek. 2006. *A Field Guide to the Tiger Beetles of the United States and Canada*. Oxford University Press. Oxford, New York. 227 pp.

Personal communication

Mike G. Kippenhan

C. Barry Knisley

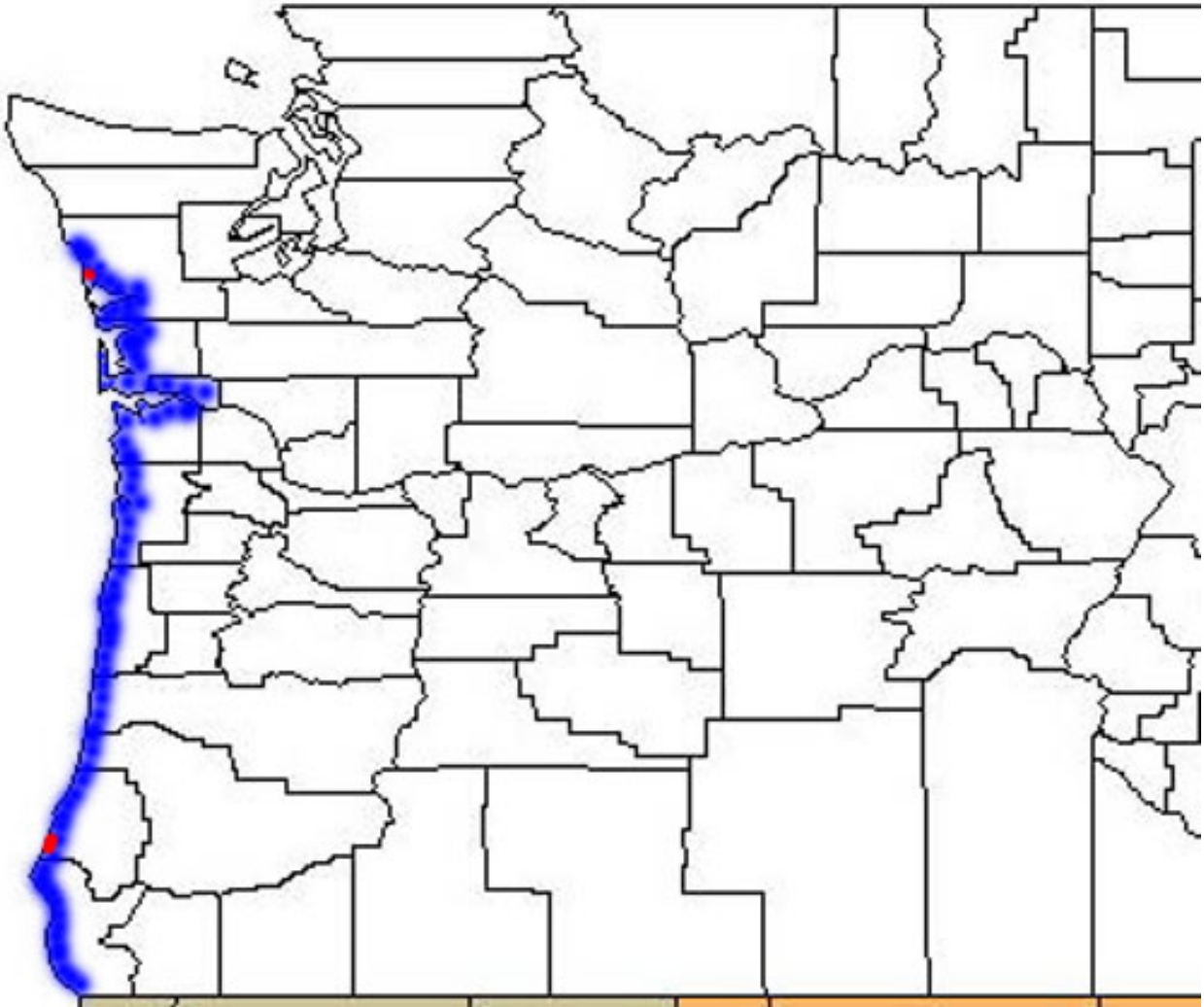
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Knowledgeable contacts

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**Siuslaw Hairy-necked Tiger Beetle (*Cicindela Hirticollis siuslawensis*)
Distribution Map**



NOTE:

Blue Shading = Historic range in Oregon and Washington for *C. h. siuslawensis* (Pearson, et al. 2006)

Red Dots = Recent confirmed records in Oregon and Washington for *C. h. siuslawensis* (Mike Kippenhan and Ron Lyons personal communication)

Attachment to Species Fact sheet prepared by The Xerces Society.

**Siuslaw Hairy-necked Tiger Beetle (*Cicindela Hirticollis siuslawensis*)
photos**



Photos by Ronald W. Lyons
Attachment to Species Fact sheet prepared by The Xerces Society.