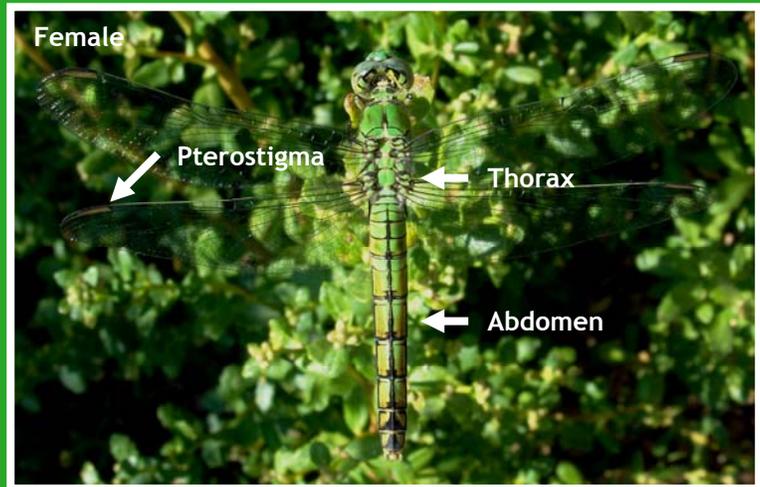


BC's Coast Region: Species & Ecosystems of Conservation Concern

Western Pondhawk (*Erythemis collocata*)

Global: G5 Provincial: S3 COSEWIC: N/A BC List: Blue



Notes on *Erythemis collocata*: A member of the family Libellulidae (“Skimmer” dragonflies), which along with its subfamilies and allies forms the largest dragonfly family in the world. Pondhawks are voracious predators, preying on damselflies and small dragonflies as well as other insects.

Description

Length: males: 4.1–4.6 cm, females: 4.0–4.3 cm. Males are slightly larger, sexes are highly dimorphic in colouration. Adult males have dark blue-green eyes, immature and adult females have light green to olive eyes. The face of both sexes is light green. Eyes just touch at the top of the head with a small triangular patch of brown hairs between. Mature males have a distinct “pruinose” (dusty or frosty looking), thorax and abdomen (lacking in immature males and females). Top leading edge of both sets of wing membranes in mature males is lined with black from wing base to the pterostigma (coloured, thickened cell on the leading edge of each wing membrane near the tip). The pterostigma of both sexes is narrow and light brown. Immature males and all females are yellow-green with a dark line running dorsally the length of the abdominal segments. Lower abdominal segments may be green or yellow-green ringed with brown. The 1.5-1.7 cm larvae are green with distinct diagonal striping on the head. The prominent eyes are located on the sides of the head and turned up. The rounded abdomen lacks abdominal hooks or spines found on the larvae of some other Odonata.

Diet

Members of the Order Odonata (dragonflies and damselflies) are carnivorous. Adults capture prey (a range of insects from mosquitoes to moths, as well as other dragonflies or damselflies), through hawking (flying back and forth over open areas), or perching (“salliers” who dart out from a perch and grab prey or glean off nearby vegetation). Western Pondhawk are perchers, known for their aggressive hunting ability, often targeting other Odonata. Their larvae, which have an aquatic existence, target other aquatic invertebrates.

Look's Like?

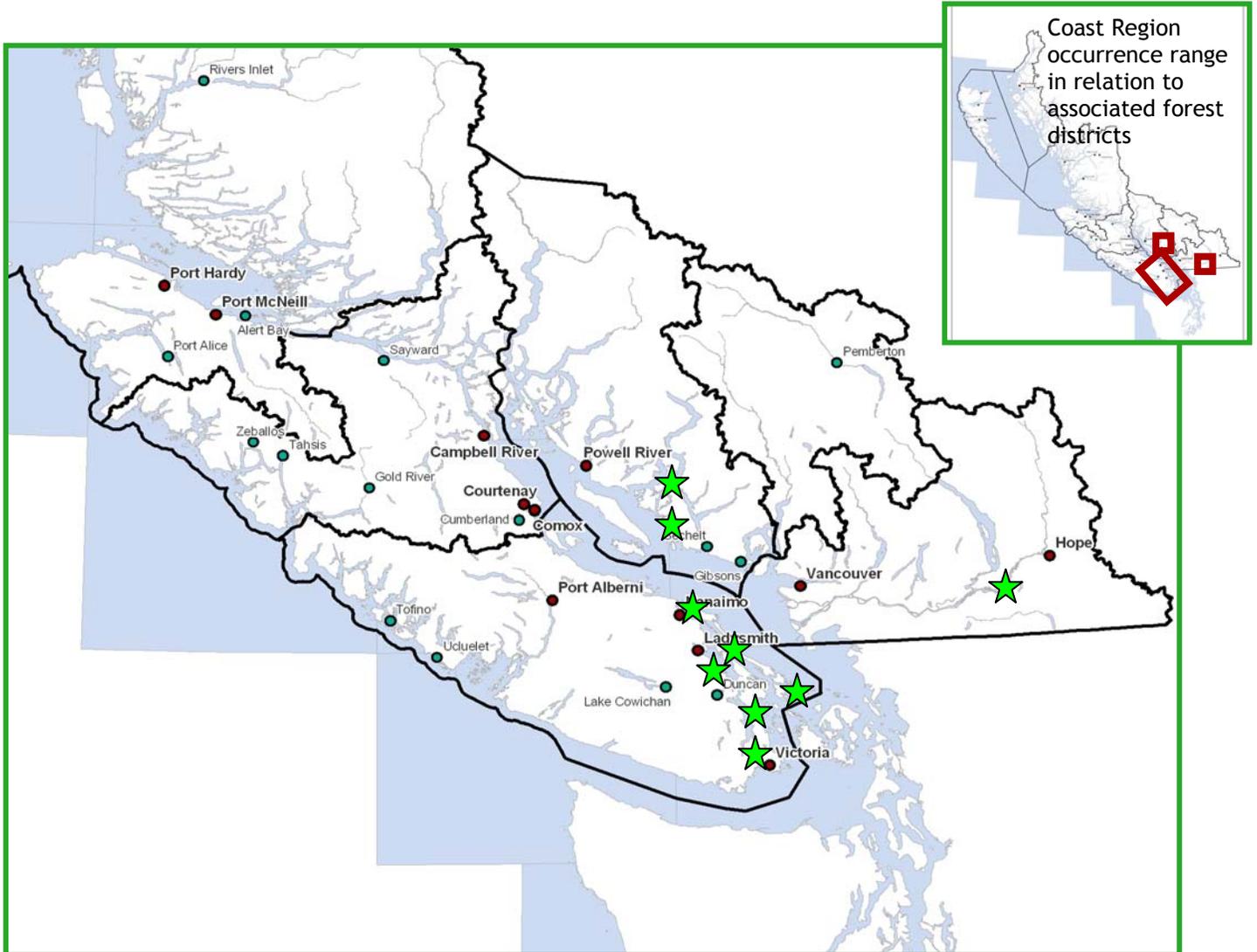
Western Pondhawk shares its Coast Region range with Blue Dasher, whose mature males have a similar blue, pruinose colouration. Male Blue Dasher have a more slender abdomen, and the last few abdominal segments are dark, almost black. Both sexes of Blue Dasher have a brown-striped thorax while that of the Western Pondhawk is unmarked. Female Blue Dasher have somewhat more brown on their dull, yellow-green abdomens than female Western Pondhawk.



Blue Dasher (mature male)

Distribution

Found throughout the western portion of the continental US, including California, Oregon and Washington State north into southwestern BC. While Western Pondhawk is widespread in the US, its range in Canada appears restricted to the extreme southwest of the Coast Region in BC and to the Osoyoos area in the Okanagan Valley. Occurrences have been documented from the South Coast's Fraser Lowlands (Cheam Lake watershed/Agassiz area on the south side of the Fraser River) to the northwest on the Sunshine Coast (Ambrose Lake and Triangle Lake on the Sechelt Peninsula). Records also indicate occurrences from southeast Vancouver Island (Greater Victoria area/Saanich Peninsula, north of Duncan at Crofton Lake), and on Saturna, Galiano and Thetis islands.



Western Pondhawk (*Erythemis collocata*), known areas of occurrence - green stars (based on historic and recent accounts), for the Coast Region.

Habitat Preferences

This species is most often associated with warm, still or slow moving waters such as ponds, sloughs and marshes that support emergent aquatic vegetation and submerged woody debris.

Critical Features

Adults prefer to perch near the ground on rocks, logs or bare soil. Little is known about the connectivity requirements or dispersal range for this species.

This species prefers slow moving, open waters with abundant emergent vegetation.



Seasonal Life Cycle

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
				Adult emergence, Breeding / Egg Deposition							

Larval development and maturation stages. Larvae (nymphs) have several “instars” (growth periods between each molt), prior to emergence as winged adults.

Adult flight period for BC ranges from early May through to late July, though the species likely flies well into August. Washington State records range from mid-May to September. *Timing of adult emergence, egg deposition and period for larval maturation may vary throughout this species range.

Threats

- Overall lack of knowledge on this species’ general biology, habitat needs and specific threats.
- The preferred habitat associations of this species are subject to changes in hydrological regimes, dewatering and reduction in structural complexity from various land use activities (e.g. dredging, dyking, impoundments and infilling).
- Impacts to water quality and aquatic habitats from contaminated stormwater runoff (urban development, agricultural land use) and sedimentation from road building (resource extraction activities).
- Broadcast spraying for insect pests or for noxious weed control (urban/rural land uses, silviculture management, utility corridor maintenance), may have significant impacts to invertebrate species at all life history stages.
- Spread and colonization of invasive plant species (aquatic and terrestrial) can impact structural diversity and hydrology of breeding habitats and availability and access to prey items.
- Introduction or enhancement of native or invasive fish species increases predation pressure on local Odonata populations (i.e. larval stages) and can impact aquatic habitat values (e.g. emergent vegetation used for cover).

Conservation & Management Objectives

- Apply conservation and management objectives for this species as identified in resources such as the Royal BC Museum’s “Living Landscapes - Insects and Their Relatives (the Odonata). Investigate recommendations for conservation for other Odonata species in BC (e.g. those found in provincial or federal status reports for species such as Western River Cruiser or Olive Clubtail).
- Inventory and assessment methods should follow those set out in the RISC Standards #40 “Inventory Methods for Terrestrial Arthropods.” More recent survey and assessment guidelines and recommendations as well as identification and inventory resources for Odonata and their habitat have been developed and should be investigated¹.

¹ Contact the provincial invertebrate specialist or the Royal BC Museum. A number of survey and assessment protocols have been developed for Odonata management outside of Canada and are listed at the end of this factsheet. Others like the Wetlandkeepers Handbook and the Wetland Evaluation Guide adopted by the BC Provincial Wetland Working Group focus on habitat associations.

Specific activities should include:

- Conduct outreach to raise awareness of this species and how to identify it to improve distribution knowledge. A targeted inventory is needed to determine if undiscovered populations exist elsewhere within the Coast Region.
- Improve understanding of larval lifecycle requirements and vulnerabilities.
- Where suitable habitat occurs, work with land managers and land owners to ensure development or recreational activities do not impact local populations.
- Encourage landowners and land use authorities to dedicate conservation covenants and easements to protect and buffer sensitive aquatic habitats. Increase awareness about the role and value that wetlands play locally and internationally.
- Effective long-term control and reduction in competition from invasive or aggressively spreading vascular plants (e.g. invasive aquatic plants, terrestrial shrubs and grasses) that impact habitat quality must form part of strategies to protect and recover populations. Disturbance to native rare plant species and communities must be minimized during control activities.
- Work to reduce the need for broadcast and cosmetic pesticide use that may be impacting non-target species through instituting integrated pest management programs.
- Consider restoration of historic maintenance regimes (e.g. seasonal flooding in lowland wetlands and floodplain off-channel areas, where feasible), that may have sustained wetland communities and species associations.
- Implement integrated stormwater planning and management approaches that reduce and eliminate potential sources for contaminated non-point source runoff entering local wetlands and waterways.

Habitat for this species may be subject to protections and prohibitions under the BC Wildlife Act and Forest and Range Practices Act and may also be governed under provincial and federal regulations including the Fish Protection Act and Federal Fisheries Act as well as Regional and local municipal bylaws.

Content for this Factsheet has been derived from the following sources

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Every effort has been made to ensure content accuracy. Comments or corrections should be directed to the South Coast Conservation Program: info@sccp.ca. Content updated March 2011.

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