



Observations of three Harlequin Duck (*Histrionicus histrionicus*) nests in the southern Washington

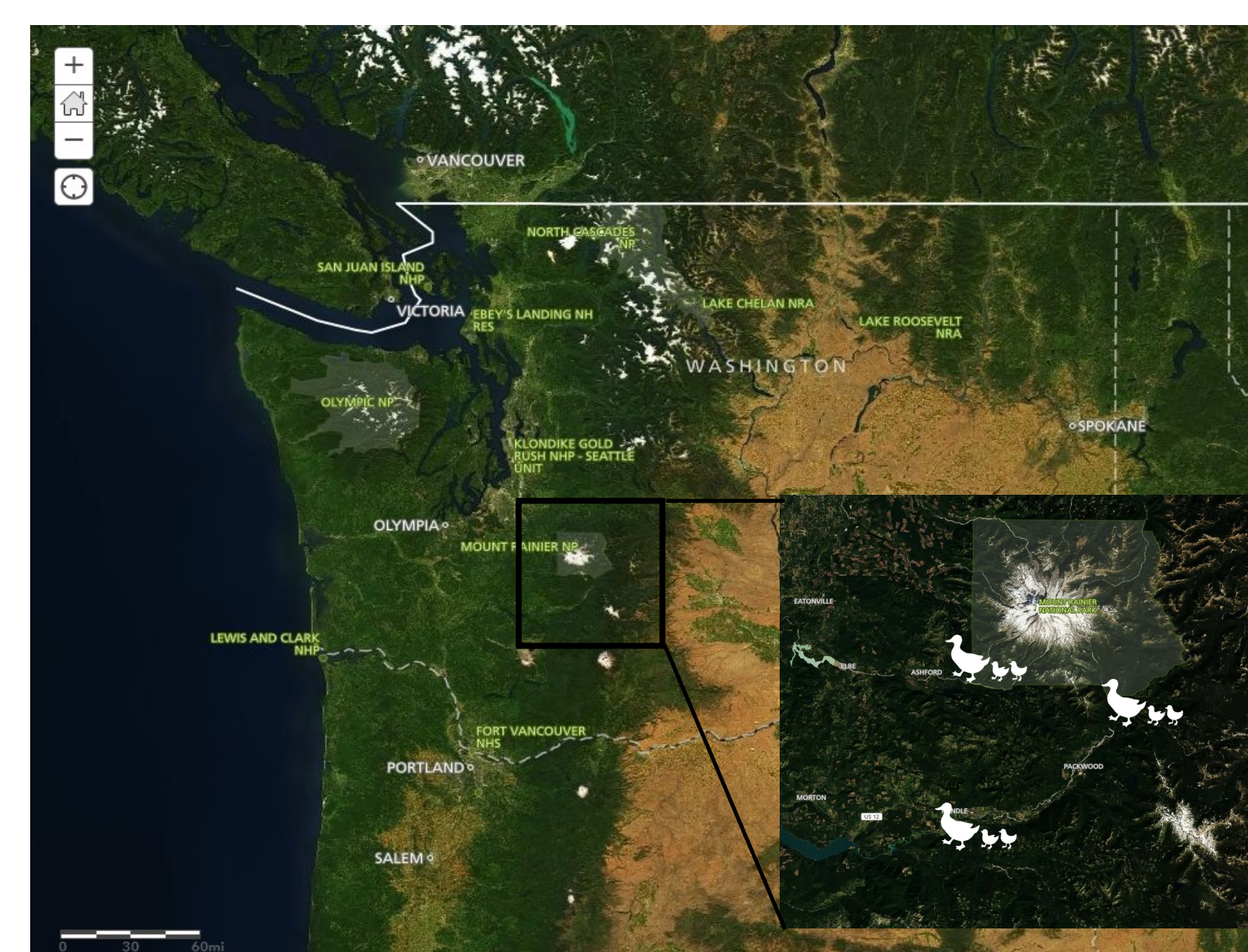
Cascade Range Roy Morris, Russ Gibbs and Tara Chestnut; Mount Rainier National Park, Ashford, WA



Abstract

Knowledge of species' natural history is critical to development of professional expertise and informing conservation priorities, yet basic life history information is lacking for many species. Even when global information is available, local natural history information to mitigate threats may still be lacking. The Harlequin Duck (*Histrionicus histrionicus*) is a small sea duck considered by the International Union for the Conservation of Nature (IUCN) to be "Apparently Secure – G4 N4" globally and nationally but in the United States it is considered "Imperiled" or "Critically Imperiled – S2B S1" at the state level throughout most of the southern portion of its breeding range. The Harlequin Duck Working Group identified breeding surveys as a key inventory need for the Pacific population, specifically in the Washington Cascade Range. We conducted opportunistic nest surveys at Mount Rainier National Park from 2001 to 2018 and report on the nest site descriptions of three Harlequin Duck nests detected in 2005 (n=2) and 2018 (n=1). Prior to this, only one Harlequin Duck nest was reported from Mount Rainier National Park in 1920.

Figure 1. Locations of Harlequin duck nests



Nest Sites

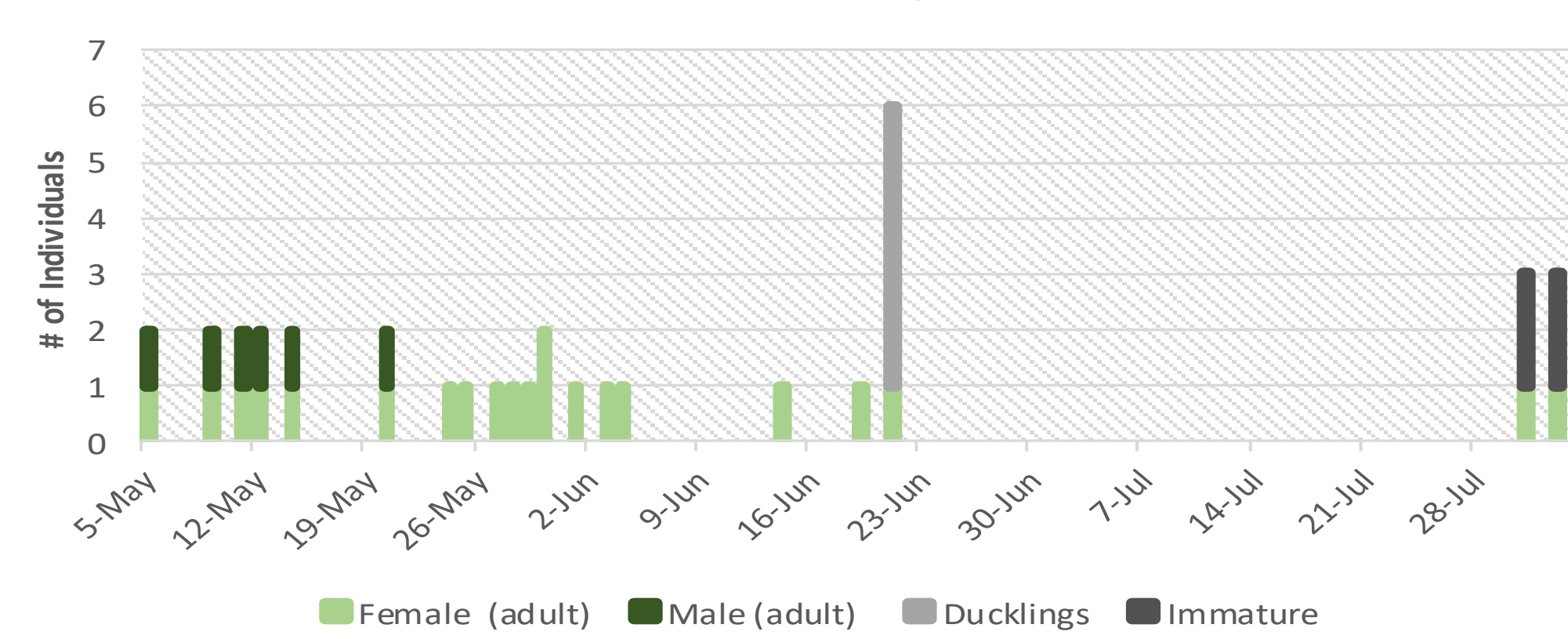
Locations: Nisqually River, Muddy Fork Cowlitz River, and East Canyon Creek, WA, USA. Staff and volunteers conducted harlequin surveys in Mount Rainier National Park and adjacent National Forest lands from 2001 to 2015 and in 2018. In 2005, R. Gibbs observed two nests in the Gifford Pinchot National Forest. He found one nest on East Canyon Creek along NF road 23, south of Randle on 23 May 2005. He found a second nest along the Muddy Fork Cowlitz River on 28 June 2005. On 27 May 2018, R. Morris observed a female harlequin duck entering a nest cavity along the Nisqually River in Mount Rainier National Park. We monitored the nest with a trail camera and present video footage of fledging and post-fledging behavior.

Breeding Phenology

Location: Nisqually River, Longmire, WA

Pairs we first observed on the upper Nisqually River on May 5, 2018. After May 26, no males were observed. Ducklings were first observed on June 23, 2018. We recorded them emerging and fledging from the nest on June 23, 2018 (Figure 2).

Figure 2. Breeding phenology of a Harlequin Duck nest on the Nisqually River at Mount Rainier National Park, 2018



Observer	River	Nest Location	Discovery Date	Emergence Date	Nest Fate	Distance from Water (m)	Height above water (m)	Clutch size
J.B Flett	Nisqually	Mount Rainier NP	26 May 1920	Unk.	Failed	Unk.	Unk.	7
R. Gibbs	East Canyon Creek	Gifford Pinchot NF	23 May 2005	Unk.	Unk.	4.5	1	7
R. Gibbs	Muddy Fork Cowlitz	Gifford Pinchot NF	28 May 2005	Unk.	Unk.	1.5	2.5	Unk.
R. Morris	Nisqually	Mount Rainier NP	27 May 2018	21 Jun 2018	Hatched 19-20 Jun (20 June)	1.5	0.8	5

Table 1. General descriptions of Harlequin duck nests in the southern Washington Cascade Range.