

Invertebrates Petitioned for Endangered Species Act Listing in Wyoming

Narrow-foot Hygrotus Diving Beetle (*Hygrotus diversipes*)

Who: Insect, Beetle (Coleoptera), Predacious diving beetle (Dytiscidae)

ESA action: Category 2 Candidate Species from 1989 to 1996

Petitioned for ESA listing in 2007, 2008 and 2013

Received a substantial 90-day find in 2016

Where: Found only in intermittent streams of east central Wyoming

What is WYNDD doing: Annual surveys of known sites since 2010 and 2 statewide surveys

Coming up: BLM funded another statewide survey and additional work at known sites



Western Glacier Stonefly (*Zapada glacier*)

Who: Insect, Stonefly (Plecoptera), Spring Stoneflies (Nemouridae)

ESA action: Petitioned for ESA listing in 2010

Received a substantial 90-day find in 2011

Received a substantial 12 month finding in 2016

Proposed Threatened in 2017, but still awaiting final decision

Where: Alpine streams of Glacier National Park and the Teton Mountains

What is WYNDD doing: Annual surveys since 2015, increased the number of sites known

Coming up: Forest Service funded surveys for *Zapada glacier* in other mountains of Wyoming



Western Bumble Bee (*Bombus occidentalis*)

Who: Insect, Bee (Hymenoptera), Bumble bee (Apidae)

ESA action: Petitioned for ESA listing in 2015

Received a substantial 90-day find in 2016

Where: Western United States, throughout Wyoming

What is WYNDD doing: Statewide survey and predictive distribution model for Wyoming, resampled historic sites

Coming up: BLM funded continuing studies of *Bombus occidentalis* in Wyoming



Regal Fritillary (*Speyeria idalia*)

Who: Insect, Butterfly (Lepidoptera), Fritillary (Nymphalidae)

ESA action: Petitioned for ESA listing in 2013

Received a substantial 90-day find in 2015

Where: From eastern Wyoming to East Coast, disappeared from eastern portion of range

What is WYNDD doing: Surveys in summer 2019, 7 individuals observed from 6 sites

Coming up: Surveys in eastern Wyoming during summer 2021 funded by Wyoming Governor's office



Monarch (*Danaus plexippus*)

Who: Insect, Butterfly (Lepidoptera), Fritillary (Nymphalidae)

ESA action: Petitioned for ESA listing in 2013

Received a substantial 90-day find in 2015

Where: Most of the United States, migrates from southern Mexico to southern Canada

What is WYNDD doing: Citizen science project that reported observations across Wyoming

Coming up: No funded projects but record observations in butterflies surveys



Great Basin Silverspot (*Speyeria nokomis nokomis*)

Who: Insect, Butterfly (Lepidoptera), Fritillary (Nymphalidae)

ESA action: Petitioned for ESA listing in 2013

Received a substantial 90-day find in 2016

Where: Southwestern United States (no records in Wyoming, but observations along boarder in Colorado and Utah)

What is WYNDD doing: Streamlining butterfly protocols

Coming up: Surveys in eastern Wyoming during summer 2021 funded by Wyoming Governor's office



Questions about Invertebrates in Wyoming?

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