

2012 Aquatic Invasive Species Monitoring Results

In 2012, 55 lakes or reservoirs and 8 rivers or streams were sampled for aquatic invasive species (Figure 1). Plankton tows were used to sample for the larval form (veligers) of the invasive zebra mussel (*Dreissena polymorpha*) and quagga mussel (*Dreissena rostriformis*). Substrates were deployed to capture the juvenile or adult form of invasive mussels. Shoreline and stream surveys were conducted to sample plants and animals (snails, clams, crayfish). No larval invasive mussels were detected in any of the sampled waters (Table 1). There were 21 substrates placed on 15 waters, all were returned negative. Shoreline and stream surveys were conducted on 44 waters in 2012. Surveys were conducted on several waters to re-assess distribution and abundance of known AIS including the New Zealand mudsnail (*Potamopyrgus antipodarum*) and curly pondweed (*Potamogeton crispus*).

Historic locations of New Zealand mudsnail were sampled on the Big Horn River and Snake River. In both the Big Horn River and Snake River population size at each sample location was less than historic levels. On the Big Horn River, New Zealand mudsnails were observed upstream of the historic location but were not observed downstream. Mudsnails are now found from Wind River Upper Campground below Boysen Dam downstream to Fourmile Bridge on the Big Horn River. On the Snake River, New Zealand mudsnails were observed upstream of the historic location but were not found downstream. New Zealand mudsnails now occur in Polecat Creek to the confluence of the Snake River above Jackson Lake. Mudsnails have also been documented in the Shoshone River; however surveys were not conducted on these waters in 2012 (Figure 2).

Curly pondweed, a nonnative plant, was detected in Lake DeSmet in 2011. In 2012, additional surveys were conducted on Lake DeSmet to determine distribution and abundance of curly pondweed in the lake. The surveys found curly pondweed on the western and southern shores of the lake with the highest densities at access points (boat ramps). Curly pondweed was also detected on the North Platte River between Kortez Reservoir and Pathfinder Reservoir, a section of river called the "Miracle Mile" and at New Fork Lake at the constriction between upper and lower New Fork Lake (Figure 3).

Asian clam were confirmed in the Laramie River in 2011 (Figure 4). In 2012, one adult Asian clam was found at the boat ramp at Hog Park Reservoir. No further specimens were detected. Further sampling is planned in 2013 to validate the presence or absence of this species at Hog Park Reservoir.

Rusty crayfish were detected by the Casper Regional Fisheries Management Crew once again in Wagonhound Creek, a tributary to the North Platte River (Figure 5). This location was treated for rusty crayfish in 2006 and believed to have been eradicated. Regional fisheries biologists surveyed the creek in 2012 and found rusty crayfish downstream of historic locations. A pond was treated in 2012 with additional treatments of the stream planned for 2013.

Whirling disease is present in streams throughout Wyoming. In 2012, no additional positive samples were collected (Figure 6).

It is important that anyone using Wyoming waters ensure that their watercraft, equipment, and gear are drained of all water; cleaned of all mud, plants, and debris; and dried thoroughly before using in another water.

2012 Statewide Monitoring Locations

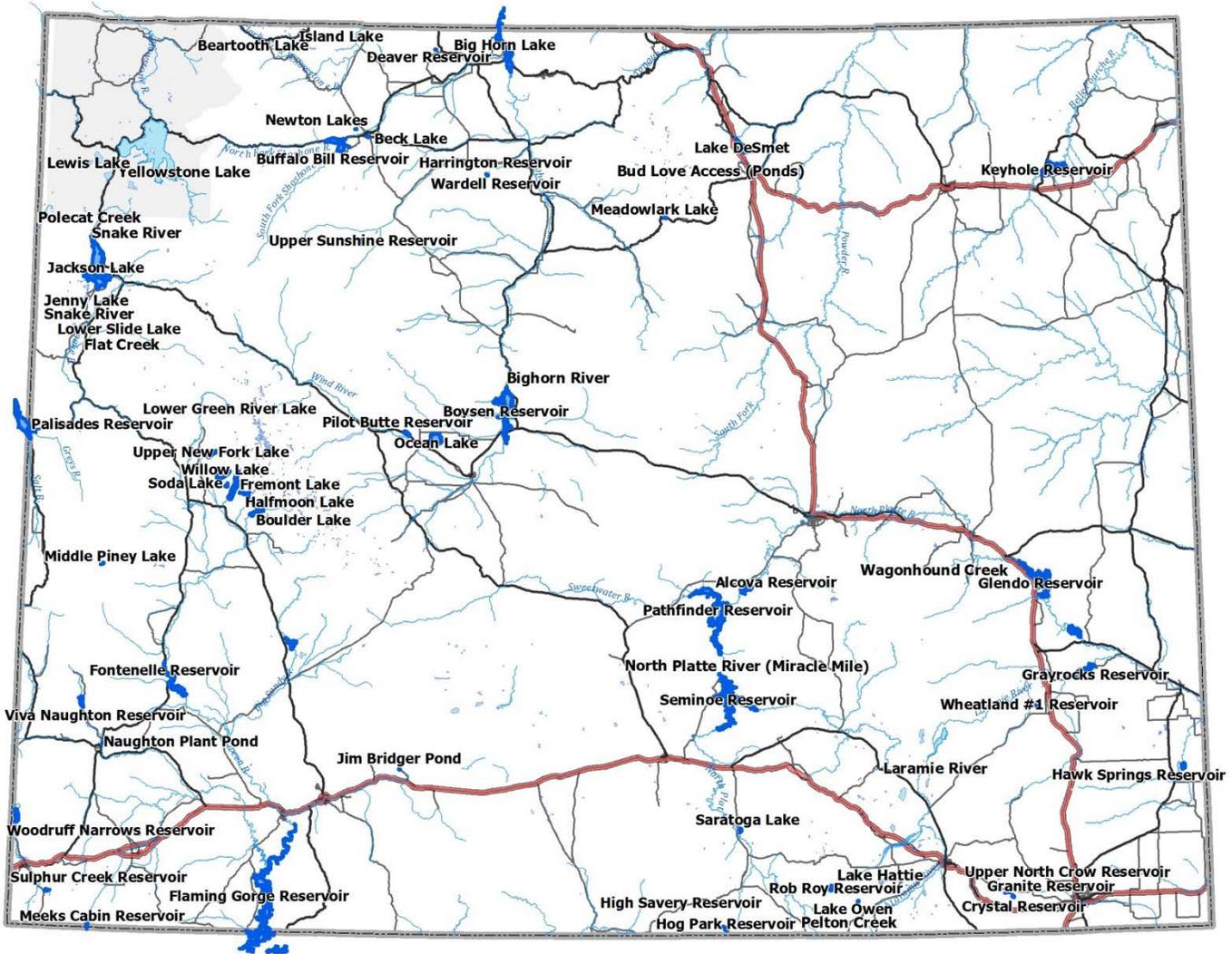


Figure 1. 2012 monitoring locations.

Table 1. Monitoring results for waters sampled in 2012.

Water	Zebra/Quagga Mussels	Other Invasive Species
Alcova Reservoir	Negative	None
Beartooth Lake	Negative	None
Beck Lake	Negative	None
Big Horn Lake	Negative	None
Big Horn River	Negative	New Zealand Mudsnaill
Big Sandy Reservoir	Not tested	None
Boulder Lake	Negative	None
Boysen Reservoir	Negative	None
Buffalo Bill Reservoir	Negative	None
Crystal Reservoir	Negative	None
Deaver Reservoir	Negative	None
East Newton Lake	Negative	None
Flaming Gorge Reservoir	Negative	None
Fontenelle Reservoir	Negative	None
Fremont Lake	Negative	None
Glendo Reservoir	Negative	None
Granite Reservoir	Negative	None
Grayrocks Reservoir	Negative	None
Green River Lake	Negative	None
Guernsey Reservoir	Not tested	None
Halfmoon Lake	Negative	None
Harrington Reservoir	Negative	None
Hawk Springs Reservoir	Negative	None
High Savery Reservoir	Negative	None
Hog Park Reservoir	Negative	Suspect Asian clam (mollusk)
Island Lake	Negative	None
Jackson Lake	Negative	None
Jenny Lake	Negative	None
Jim Bridger Pond	Negative	None
Keyhole Reservoir	Negative	None
Lake DeSmet	Negative	Curly pondweed (plant)
Lake Owen	Negative	None
Laramie River	Not tested	Asian clam (mollusk)
Lewis Lake	Negative	None
Lower Slide Lake	Negative	None
Meadowlark Lake	Negative	None
Meeks Cabin Reservoir	Negative	None
Middle Piney Lake	Negative	None
Naughton Plant Pond	Negative	None
New Fork Lake	Negative	Curly pondweed (plant)
North Platte River (Miracle Mile)	Not tested	Curly pondweed (plant)
Ocean Lake	Negative	None
Palisades Reservoir	Negative	None
Pathfinder Reservoir	Negative	None
Pilot Butte Reservoir	Negative	None
Polecat Creek	Negative	New Zealand Mudsnaill
Rob Roy Reservoir	Negative	None
Saratoga Lake	Negative	None
Seminole Reservoir	Negative	None
Shoshone River	Negative	New Zealand Mudsnaill
Soda Lake	Negative	None
Snake River	Not tested	New Zealand Mudsnaill

Water	Zebra/Quagga Mussels	Other Invasive Species
Sulphur Creek Reservoir	Negative	None
Upper North Crow Reservoir	Negative	None
Upper Sunshine Reservoir	Negative	None
Viva Naughton Reservoir	Negative	None
Wagonhound Creek	Not tested	Rusty Crayfish
Wardell Reservoir	Negative	None
West Newton Lake	Negative	None
Wheatland Reservoir #1	Negative	None
Willow Lake	Negative	None
Woodruff Narrows Reservoir	Negative	None
Yellowstone Lake	Negative	None

New Zealand Mudsail Wyoming Distribution

● Known Location ■ Infested Watershed

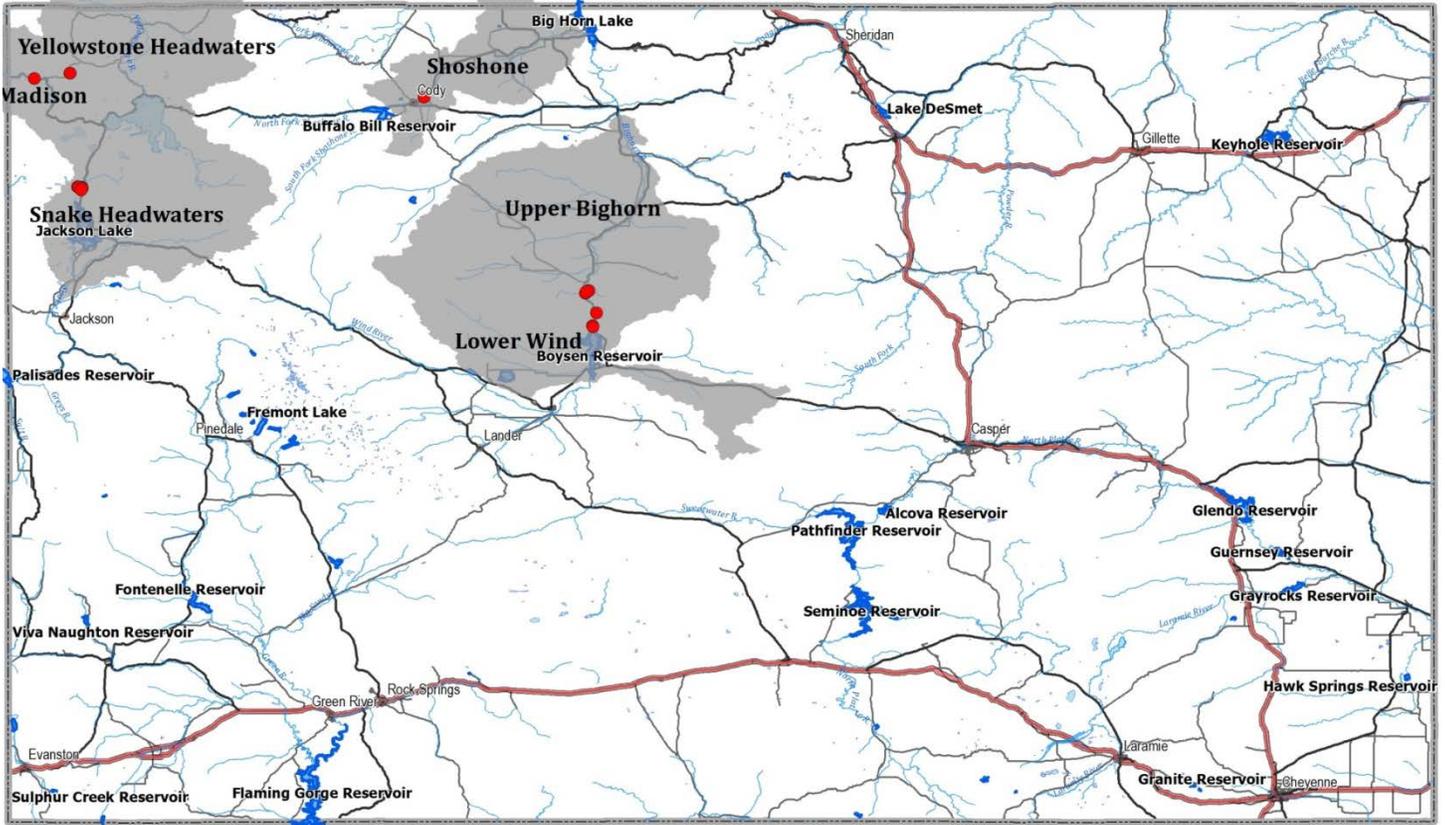


Figure 2. New Zealand mudsnail 2012 distribution by watershed at 4th level (8-digit) HUC.

Curly Pondweed Wyoming Distribution

● Known Location ■ Infested Watershed

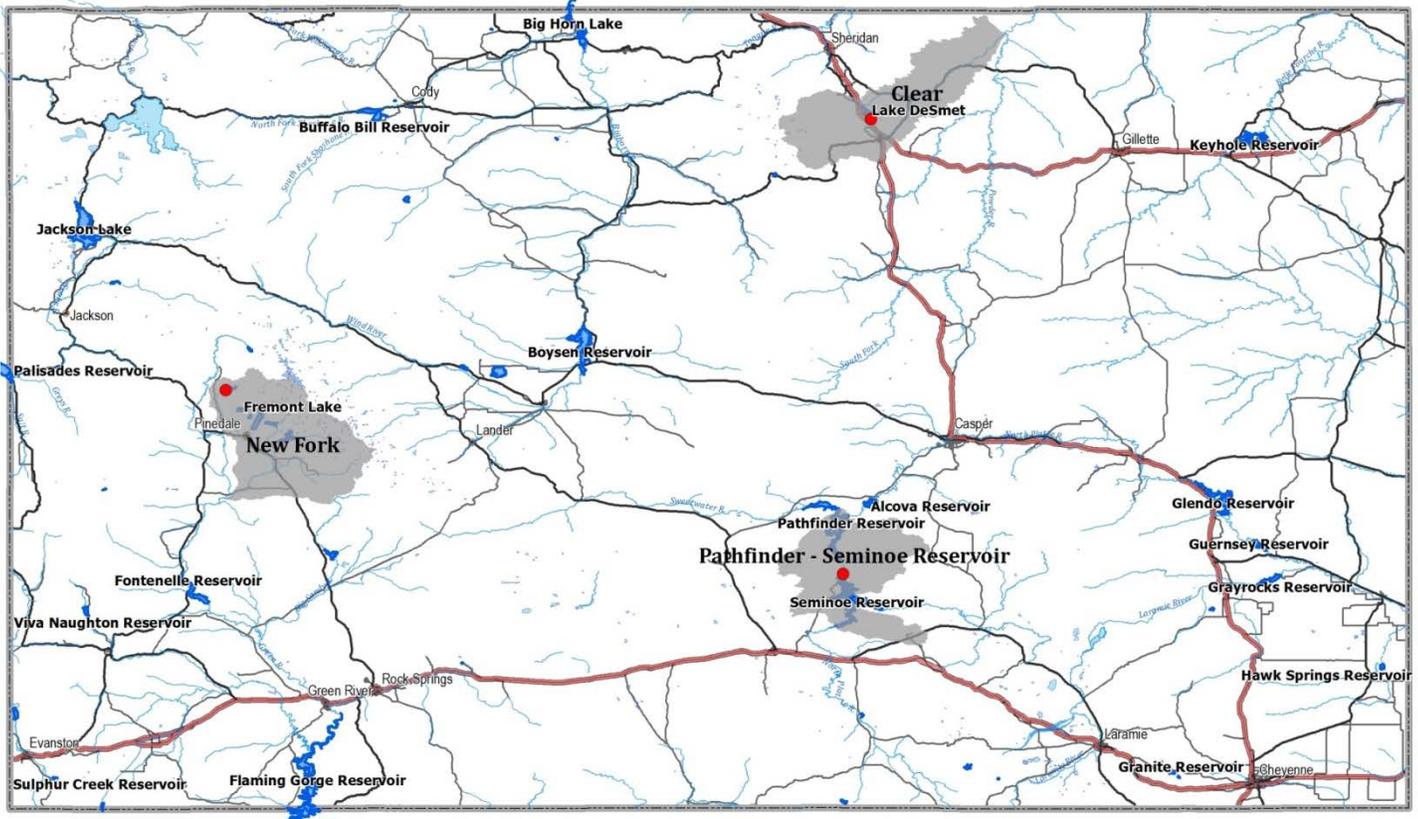


Figure 3. Curly pondweed 2012 distribution by watershed at 4th level (8-digit) HUC.

Asian Clam Wyoming Distribution

● Known Location ■ Infested Watershed

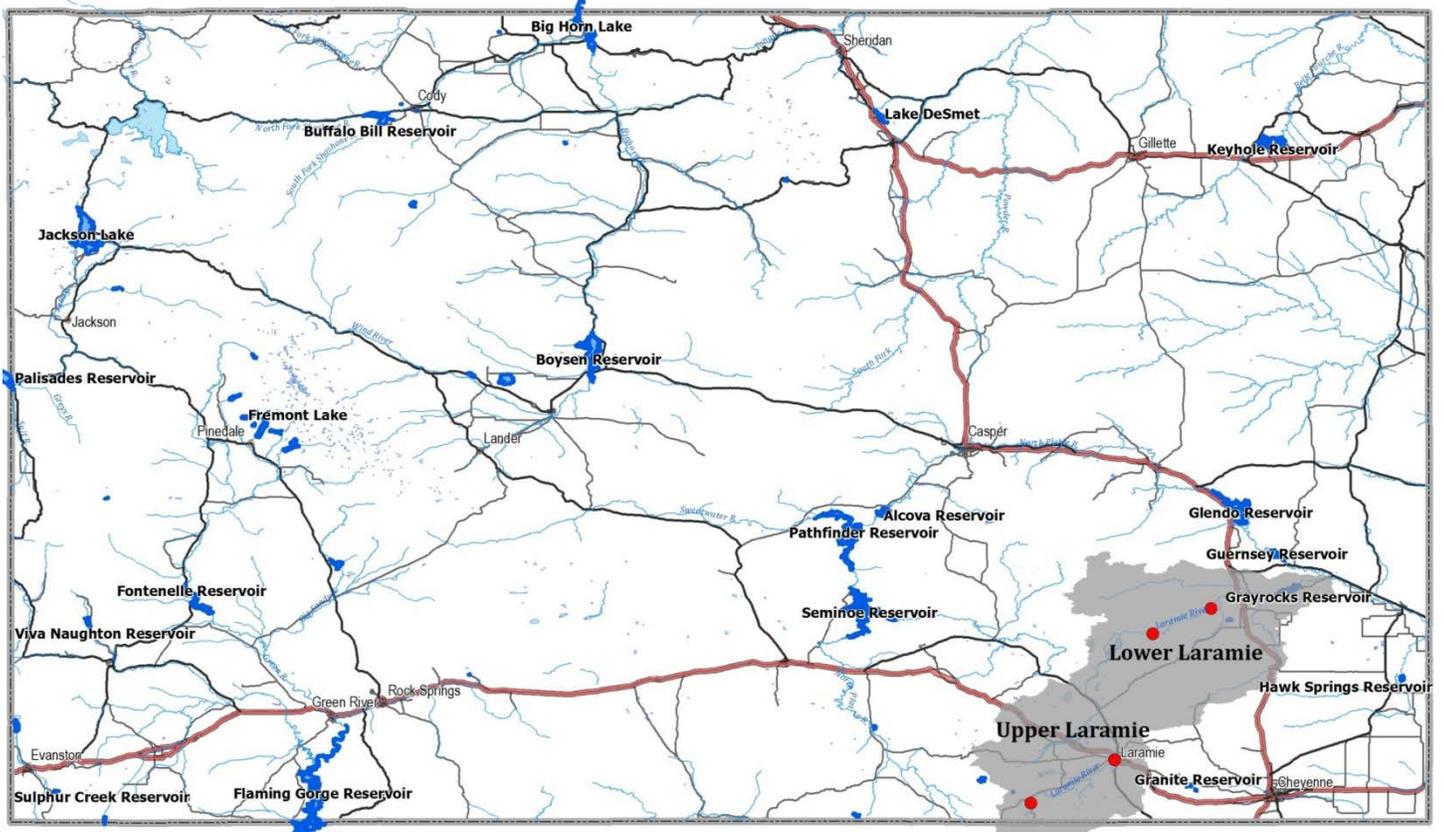


Figure 4. Asian clam 2012 distribution by watershed at 4th level (8-digit) HUC.

Rusty Crayfish Wyoming Distribution

● Rusty Crayfish ■ Infested Watershed

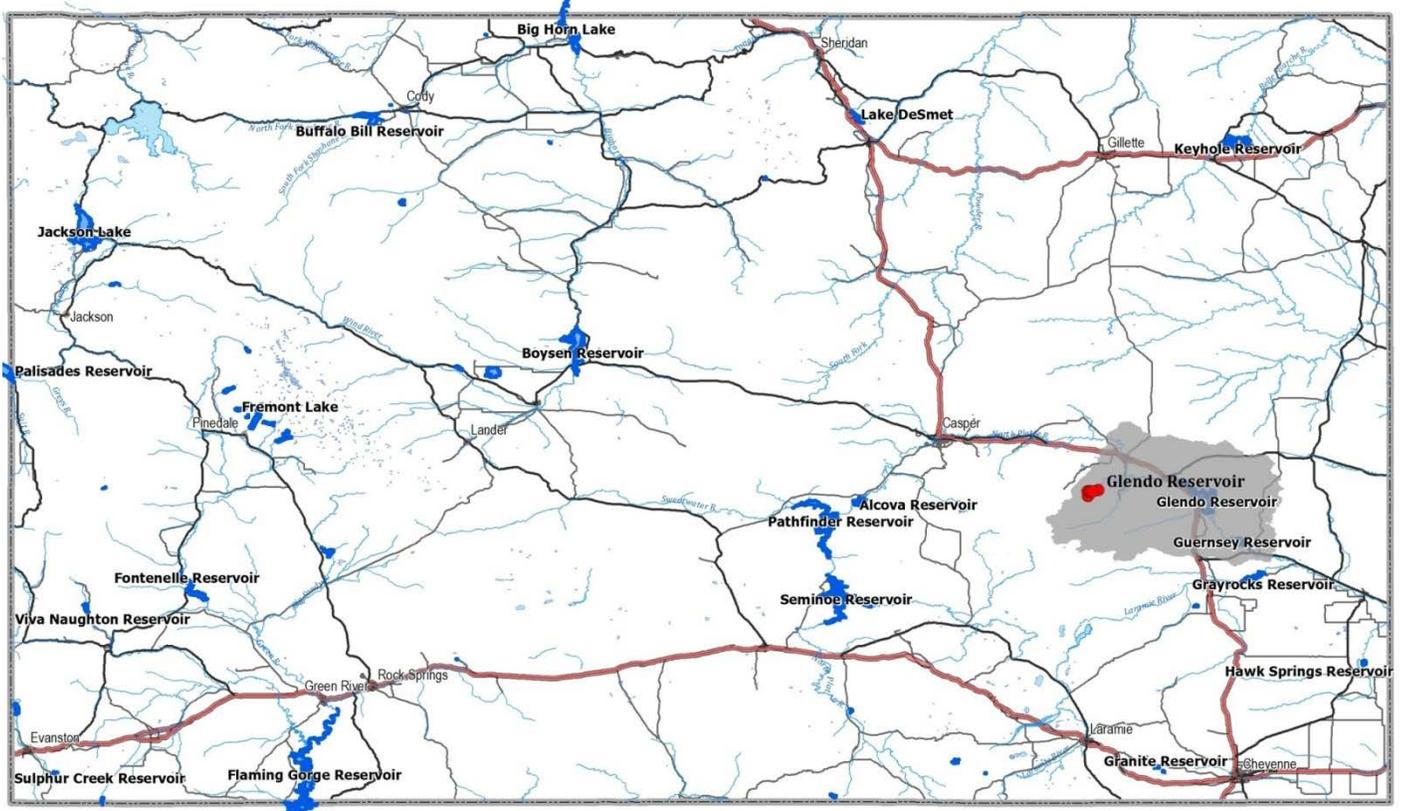


Figure 5. Rusty crayfish 2012 distribution by watershed at 4th level (8-digit) HUC.

Whirling Disease Wyoming Distribution

● Known Location Infested Watershed

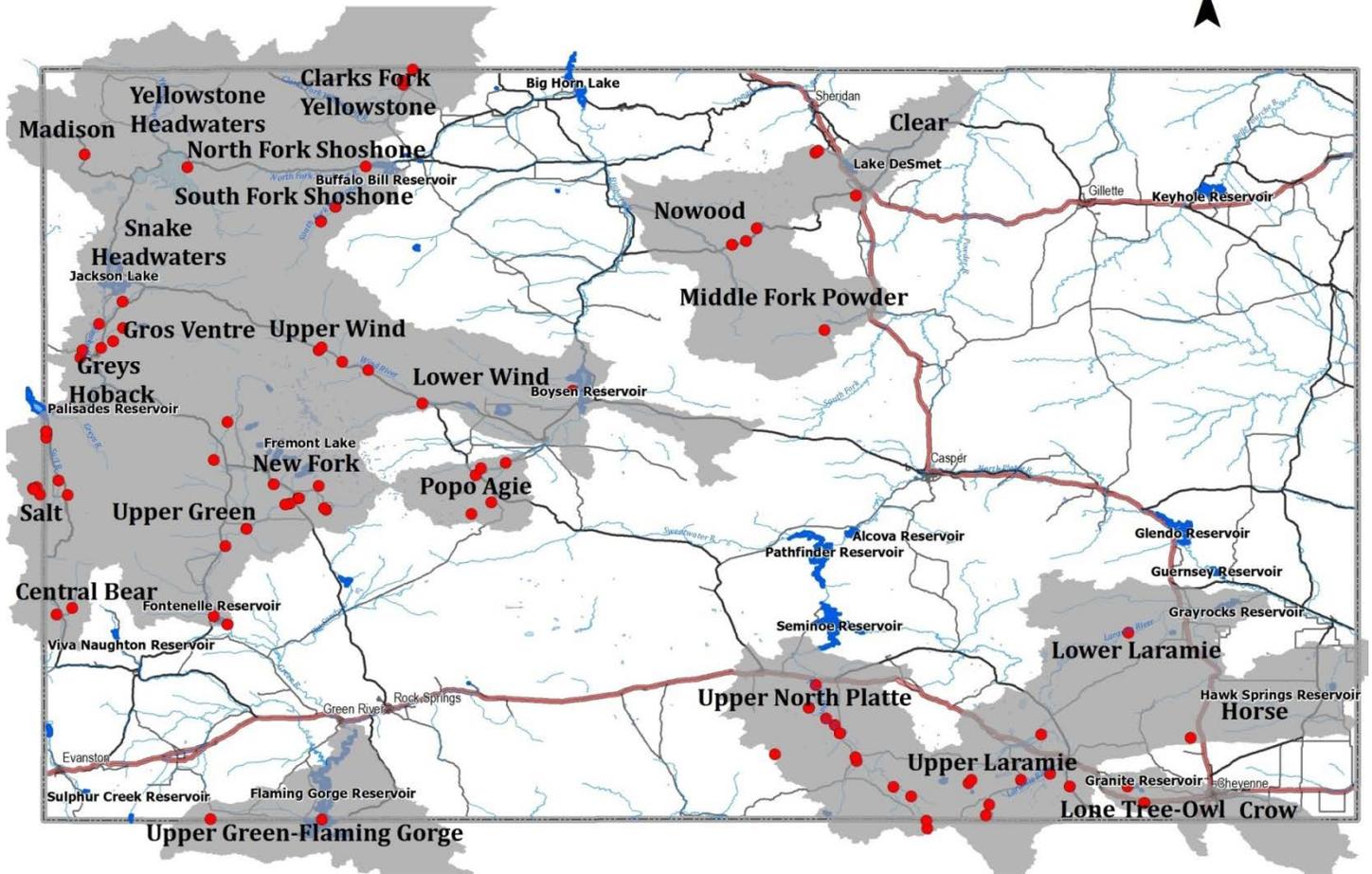


Figure 6. Whirling disease 2012 distribution by watershed at 4th level (8-digit) HUC.