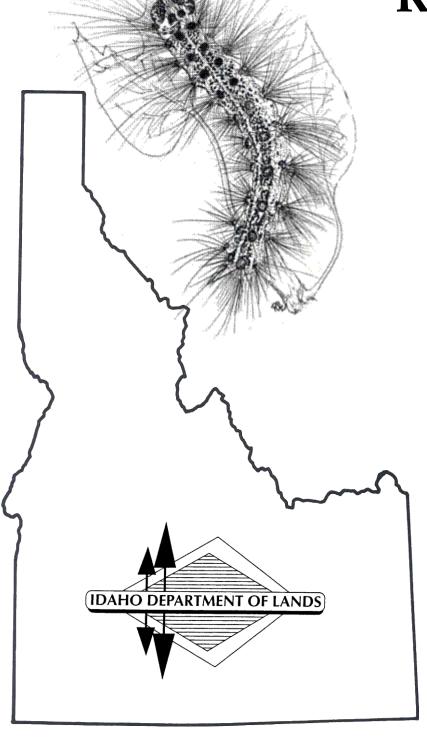
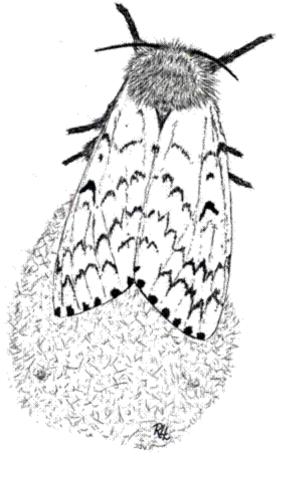


Spongy Moth Report 2023





STATE OF IDAHO

SPONGY MOTH MONITORING PROGRAM

SUMMARY REPORT

2023



by Erika Eidson, Tom Eckberg, and Isabella Valdez

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EXECUTIVE SUMMARY

In 2023, a total of 2,020 spongy moth, formerly known as gypsy moth, traps were deployed in Idaho. One male spongy moth was captured near Twin Falls in 2023. No delimitation trapping was conducted in 2023, but delimitation trapping will be conducted around the Twin Falls capture site in 2024. There have been no spongy moths trapped in Idaho since the 2016 capture of one male spongy moth in Pocatello, Bannock County (Figure 1).

COMMON NAME CHANGE FOR SPONGY MOTH

Since 2021 per the Entomological Society of America, "gypsy moth" is no longer being recognized as the common name for regulated *Lymantria* moths. The new common names are listed in the table below.

For more information about this change, please see:

https://www.aphis.usda.gov/aphis/newsroom/stakeholder-info/sa_by_date/sa-2022/spongy-moth

Common name changes used in this report:

Scientific Name	Former Common Name	New Common Name
Lymantria dispar	gypsy moth	spongy moth
Lymnatria dispar dispar	European gypsy moth	spongy moth (flightless)*
Lymantria dispar asiatica, Lymantria dispar japonica, Lymantria albescens, Lymantria umbrosa, and Lymantria postalba	Asian gypsy moth	flighted spongy moth complex

^{*}Males of L. dispar dispar are capable of flight, females are not

INTRODUCTION

Spongy moth (formerly gypsy moth) is a destructive defoliator of many deciduous forest and shade trees as well as some conifers. Since the introduction of spongy moth (flightless) (*Lymantria dispar dispar*) into the United States from Europe in 1869, this pest has spread throughout New England and has become established in all or part of about 20 Northeast and Midwest states. Once spongy moth is established, eradication is usually not possible.

There are also multiple subspecies and related species of spongy moths that originate from Asia (formerly called Asian gypsy moths), including *Lymantria dispar asiatica*, *Lymantria dispar japonica*, *Lymantria albescens*, *Lymantria umbrosa*, and *Lymantria postalba*. These moths are collectively referred to as "flighted spongy moth complex" because, unlike *L. dispar dispar*, females are capable of flight. Males of *L. dispar dispar* are capable of flight. Flighted spongy moth complex was first discovered in North America in 1991 near the port of Vancouver in British Columbia, Canada. Since that time, it has been discovered and eradicated in 9 states: California, Idaho, North Carolina, South Carolina, Georgia, Oregon, Texas, Oklahoma and Washington State. However, each year, flighted spongy moth complex has the potential to be introduced by ships moving cargo from overseas. Flightless spongy moths (*L. dispar dispar*), on the other hand, are most often introduced to the West by people moving household items from infested areas of the Midwest and Eastern United States.

The State of Idaho has eradicated all introductions of spongy moths. As a result, Idaho has no established populations within the state. The purpose of the Idaho spongy moth survey program is to detect new introductions of spongy moths in a timely manner. This allows for effective eradication treatments that prevent populations from becoming established. Through this program, delimitation and eradication can be achieved with the least expense and lowest risk of environmental impact.

LIFE CYCLE

Spongy moth goes through four life stages: egg, caterpillar (larva), pupa, and adult. It has one generation per year and overwinters in the egg stage. Each female lays 50-1,000 eggs in one mass, which is covered with velvety golden, or buff-colored hairs from the female's abdomen. The egg mass is about $\frac{3}{4}$ inch wide and $1-\frac{1}{2}$ inches long and is attached to trees, logs, rocks, buildings, or any other outdoor household article. The new common name "spongy moth" refers to likeness of the egg mass to a sponge.

Caterpillars hatch from eggs from mid-April to mid-June. This is the only damaging life stage. The caterpillars are voracious feeders and can grow to 2 inches in length. A single caterpillar can eat up to three square feet of leaves in its lifetime. Larger (older) caterpillars have five pairs of blue spots and six pairs of rusty red spots along their backs. They typically feed in the treetops at night but migrate down the trunk to the ground each day for protection from heat and predators.

Once a caterpillar matures, it transforms into a non-feeding stage called the pupa. Mature caterpillars produce a "cocoon" with strands of silk, which is used to attach themselves to vertical surfaces. Then a more rigid chrysalis, or pupal case, forms around the caterpillar as it transforms. The pupa is an immobile stage during which the caterpillar changes into an adult moth. Pupae may gyrate if they are disturbed, but left alone, they will appear still as the change occurs. They are dark reddish brown and leathery. Pupae are usually found in crevices on tree trunks or on larger branches. Pupae may also be found buried in leaf litter.

Adult moths begin to emerge in late July and are often present until early October, depending upon location and temperatures. Females have tan bodies from 1" to 2" long. Their wings are cream colored with dark brown zigzag markings. Female spongy moths (flightless) do not fly, whereas the females of flighted spongy moth complex are capable of flight. All female spongy moths emit a pheromone to attract a mate. Scientists have been able to produce this pheromone synthetically and currently use it to trap male moths. Males are medium sized (approx. 1½ inch wingspan), brownish gray, have feathery antennae and fly in the late afternoon. Adult moths live for about one week, during which time the sexes mate. Females lay eggs during August and early September starting the life cycle over again.

HOSTS

Spongy moth (flightless) caterpillars generally prefer oaks as hosts. However, they have the ability to feed on several hundred species of trees and shrubs including oak, apple, alder, aspen, cottonwoods, willow, birch, and plum. Coniferous species such as Douglas-fir, larch, pine and western hemlock are less desirable, yet are suitable hosts of the spongy moth (flightless) (Liebhold *et.al.* 1995).

Flighted spongy moth complex can feed and grow on over 500 different plants, some of which are important economic and urban tree species in Idaho. Western larch, a valuable timber species in Idaho, is a preferred host of flighted spongy moth complex. Other timber species may also serve as hosts.

HISTORY

Surveys to detect introductions of the spongy moth have been conducted in Idaho each year since 1974 (<u>Table 1</u>). The first spongy moth was discovered in 1986 in Sandpoint, Bonner County. The following year numerous additional moths were caught in Sandpoint and Coeur d'Alene. Ground treatments were conducted in 1988 and aggressive aerial spray eradication programs followed in 1989 and 1990 using

a naturally occurring bacterium, *Bacillus thuringiensis var. kurstaki* (*B.t.k.*) as the pesticide (Tisdale and Livingston 1990, Livingston 1990) (Figure 1). No spongy moths have been caught in the treated areas since 1989. Another small infestation (5 moths) was detected near Huetter, ID in 1998. An eradication program was initiated in 1999 consisting of an aerial application of *B.t.k* to 35 acres surrounding the capture site. No moths were caught in detection or delimit traps in this area in subsequent years. In 2004, a spongy moth determined to be from Asian origins (flighted spongy moth complex) was caught near Hauser, ID (Lech and Livingston 2004). A 600 acre aerial spray eradication program in Kootenai County, near Hauser, was conducted in 2005 using *B.t.k.* Spongy moths have been caught in various areas throughout the state in the annual detection surveys since 1986 (Table 1). However, no eradication spray programs or mass trapping efforts have occurred since 2005, because there is a low probability of populations becoming established when only a couple moths are detected in a single year. However, delimitation trapping has occurred in the areas and years following any spongy moth capture to monitor and determine appropriate future treatments.

Historic Idaho Spongy Moth Reports can be requested from the Idaho Department of Lands by contacting the address on the cover of this report or calling 208-769-1525.

Cooperating agencies, with accompanying responsibilities in the Idaho spongy moth program, include:

- ➤ Idaho Department of Lands Overall program coordination and trapping in northern Idaho, except in Forest Service campgrounds, and submission of data to the Integrated Plant Health Information System (IPHIS) data library.
- ➤ Idaho State Department of Agriculture Trapping in southern Idaho, primarily urban areas, and submission of data to the Integrated Plant Health Information System (IPHIS) data library.
- ➤ USDA, APHIS Provides cost share funding, traps, baits, and technical expertise.
- ➤ USDA Forest Service, Region 4 Trapping in southern Idaho, primarily federally managed lands.
- ➤ USDA Forest Service, Region 1 Trapping in Forest Service campgrounds in northern Idaho.
- ➤ Idaho Department of Transportation Provides monthly reports of vehicle registrations in Idaho from states that are generally infested with spongy moth.
- ➤ University of Idaho, Moscow Technical assistance.

Table 1 – Spongy moth trapping history in Idaho.

	NU	U MBER	OF TRA	PS	NI		OF MOT JGHT ⁵	# POS. TRAPS ⁶	ACRES TREATED	
YEAR	DET. ²	DEL. ³	MASS ⁴	TOTAL	DET. ²	DEL. ³	MASS ⁴	TOTAL		
1974 ¹	NA	NA	NA	NA	0	0	0	0	0	
1975	45	0	0	45	0	0	0	0	0	
1976	254	0	0	254	0	0	0	0	0	
1977	232	0	0	232	0	0	0	0	0	
1978	248	0	0	248	0	0	0	0	0	
1979 ¹	NA	NA	NA	NA	0	0	0	0	0	
1980	121	0	0	121	0	0	0	0	0	
1981	95	0	0	95	0	0	0	0	0	
1982	35	0	0	35	0	0	0	0	0	
1983 ¹	NA	NA	NA	NA	0	0	0	0	0	
1984 ¹	NA	NA	NA	NA	0	0	0	0	0	
1985 ¹	NA	NA	NA	NA	0	0	0	0	0	
1986	208	0	0	208	1	0	0	1	1	

Table 1 (continued) - Spongy moth trapping history in Idaho.

	NU	UMBER	OF TRA	PS	N		OF MOT	THS	# POS. TRAPS ⁶	ACRES TREATED
YEAR	DET. ²	DEL.3	MASS ⁴	TOTAL	DET. ²	DEL. ³	MASS ⁴	TOTAL		
1987	420	0	0	420	35	0	0	35	9	
1988	1,558	1,457	0	3,015	8	414	0	422	210	5 B.t.k.
1989	2,248	0	7303	9,551	17	0	51	68	54	380 <i>B.t.k.</i>
1990	5,640	358	3268	9,266	4	2	0	6	3	1055 <i>B.t.k.</i>
1991	4,641	121	0	4,762	4	0	0	4	4	
1992	4,823	130	0	4,953	2	1	0	3	3	
1993	4,314	115	0	4,429	2	0	0	2	1	
1994	4,239	96	0	4,335	1	2	0	3	3	
1995	4,522	136	0	4,658	1	0	0	1	1	
1996	4,290	117	0	4,407	0	0	0	0	0	
1997	5,085	20	0	5,105	0	0	0	0	0	
1998	4,904	0	0	4,904	7	0	0	7	3	
1999	4,837	155	90	5,082	0	0	0	0	0	35 <i>B.t.k.</i>
2000	5,398	36	0	5,434	0	0	0	0	0	
2001	5,346	0	0	5,346	2	0	0	2	2	
2002	5,024	35	0	5,059	0	0	0	0	0	
2003	5,582	35	0	5,617	0	0	0	0	0	
2004	5,875	0	0	5,875	15	0	0	15	15	
2005	4,989	1,441	0	6,430	1	0	0	1	1	600 B.t.k.
2006	5,380	1,473	0	6,853	0	0	0	0	0	
2007	4,882	1,475	0	6,357	2	0	0	2	2	
2008	4,157	69	0	4,226	3	0	0	3	3	
2009	4,972	419	0	5,391	1	0	0	1	1	
2010	4,373	380	0	4,753	1	0	0	1	1	
2011	4,511	69	0	4,580	0	0	0	0	0	
2012	4,227	36	0	4,263	0	0	0	0	0	
2013	2,349	0	0	2,349	1	0	0	1	1	
2014	3,749	36	0	3,785	0	0	0	0	0	
2015	3,951	36	0	3,987	3	0	0	3	2	
2016	3,846	36	0	3,882	1	0	0	1	1	
2017	3,682	72	0	3,754	0	0	0	0	0	
2018	3,713	36	0	3,749	0	0	0	0	0	
2019	2,749	0	0	2,749	0	0	0	0	0	
2020	2,751	0	0	2,751	0	0	0	0	0	
2021	2,559	0	0	2,559	0	0	0	0	0	
2022	2,611	0	0	2,611	0	0	0	0	0	
2023	2,020	0	0	2,020	1	0	0	1	1	

Table 1 – Spongy moth trapping history in Idaho (notes)

¹Trapping did occur in Idaho in these years, and no moths were found. Records are incomplete as to the exact number of traps.

²Detection trapping, a low density of traps to determine existence of pest in an area or community.

³Delimitation trapping, an intensified trapping scheme to determine the size and extent of the pest population.

⁴Mass trapping, done for control at approximately 9 traps per acre.

⁵All moths captured in Idaho have been *L. dispar dispar*, except in 2004, where a flighted spongy moth complex specimen was captured.

⁶ Number of traps with positive identification of spongy moth

2023 SPONGY MOTH PROGRAM

Detection Trapping

For the 2023 trapping season, new changes were implemented in order to more closely align with APHIS trapping guidelines on trapping density and frequency. In northern Idaho, overly concentrated trapping densities were reduced, especially in rural areas. In southern Idaho, trapping densities remained the same because they were already deemed appropriate. The schedule for trapping rural areas was adjusted such that rural areas will now be trapped every four years instead of every three years.

In addition to the trapping reductions described above, trapping zones were updated upon review of the 2020 census data. Several zones were expanded, upgraded to greater trapping frequency, or downgraded to lower trapping frequency in accordance with current human population distribution in Idaho.

Overall, the 2023 updates resulted in about 770 fewer traps being deployed as compared to the number of traps originally planned for this year. Please see the <u>Appendix</u> for more information.

Cooperating agencies in the Idaho spongy moth detection program placed 2,020 detection traps throughout the state in 2023 (<u>Table 2</u>). <u>Figure 2</u> shows approximate trap placements. Traps were placed throughout the state in cities, towns, surrounding urban areas, and rural communities in accordance with the pre-determined rotation schedule (see <u>Appendix</u>).

One spongy moth was captured near Twin Falls in 2023 (<u>Figure 1</u>). The specimen was confirmed to be *Lymantria dispar dispar* (flightless spongy moth) through DNA analysis performed by the APHIS Forest Pest Methods Laboratory. The positive trap was located about 6 miles west of town near a busy RV park. The immediate surrounding area is agricultural with some newer housing developments. Delimitation trapping around the positive trap site will be performed in 2024.

Table 2 – Total number of spongy moth traps placed, by agency, in Idaho in 2023.

AGENCY	DETECTION TRAPS	DELIMIT TRAPS	MASS TRAPS	TOTAL PLACED
IDL	1,130	0	0	1,130
ISDA	713	0	0	713
USFS - R4	70	0	0	70
USFS - R1	107	0	0	107
TOTALS	2,020	0	0	2,020

<u>Delimitation Trapping</u> – No delimit trapping occurred in 2023.

Mass Trapping – No mass trapping was conducted in Idaho in 2023.

Move-Ins

Cities and communities where 20 or more move-ins occurred are trapped irrespective of their place in the schedule. A move-in is defined as an individual or family moving to Idaho from a state that is generally infested with spongy moth or by someone who purchased/brought a vehicle from infested states. This information is supplied monthly by the Idaho Department of Transportation. Most infestations are initiated when an egg mass or other life stage of spongy moth arrives on an outdoor household article brought by someone moving into the area.

Table 3 shows the total number of Idaho move-ins and vehicle registrations from infested states over the past 5 trapping years. Totals are calculated for existing trapping zones; actual totals may be slightly higher for the state because moves to very remote areas are not included. Numbers have been declining sharply for the past several years, particularly following the onset of the Covid pandemic. However, it is important to note that these numbers do not include move-ins and vehicle registrations from non-infested states in the western U.S.

Table 3 – Total number of Idaho move-ins and vehicle registrations from infested states over the past 5 trapping years

State Fiscal Year	Move-Ins and Vehicle Registrations
May 2022 to April 2023	2,408
May 2021 to April 2022	2,395
May 2020 to April 2021	3,990
May 2019 to April 2020	6,896
May 2018 to April 2019	10,051

^{*}Totals differ slightly from those reported in earlier reports because omissions were discovered and corrected in the database in 2022.

While many zones had over 20 move-ins in the 2023 season, these zones were already planned to be trapped. There were no non-scheduled zones trapped in 2023 due to move-ins.

2024 PROGRAM

<u>Detection Trapping</u> – For the 2024 trapping season, Idaho will maintain the trapping schedule changes implemented in 2023. Approximately 240 more traps were deactivated from the 2024 trapping schedule in further trapping density reductions. Given these changes, approximately 2,146 spongy moth detection traps are planned to be deployed in 2024. This number does not include possible additions due to move-ins and does not include planned delimit traps (listed below). If possible, a small number of additional detection traps may be added to this number at high-risk sites such as large-scale distributors, moving industry suppliers, transportation and shipping hubs, and high-use campgrounds.

<u>Delimitation Trapping</u> – Delimitation trapping around the positive trap site near Twin Falls will be performed in 2024. Thirty-six traps per square mile will be deployed in the one square mile surrounding the positive trap site (36 delimit traps in total). Some challenges may arise due to the lack of trap sites in agricultural fields, but many new housing developments are expected to provide viable trap locations. In delimiting surveys, traps are typically deployed at densities of 16-36 traps per square mile over areas of from 1 to 4 square miles. The pattern of trap catches can be used to estimate the

approximate area of infestation if a breeding population has indeed been established. Delimitation trapping is the first step towards determining if eradication treatments will be needed.

 $\underline{\text{Mass Trapping and Eradication}}$ – There are no mass trapping or eradication treatments proposed for 2024.

Figure 1: History of spongy moth activity in Idaho.

Map shows all communities where eradication treatments were conducted and the two most recent trap captures. Not shown are numerous additional trap captures that have occurred throughout the years where no treatment was necessary.

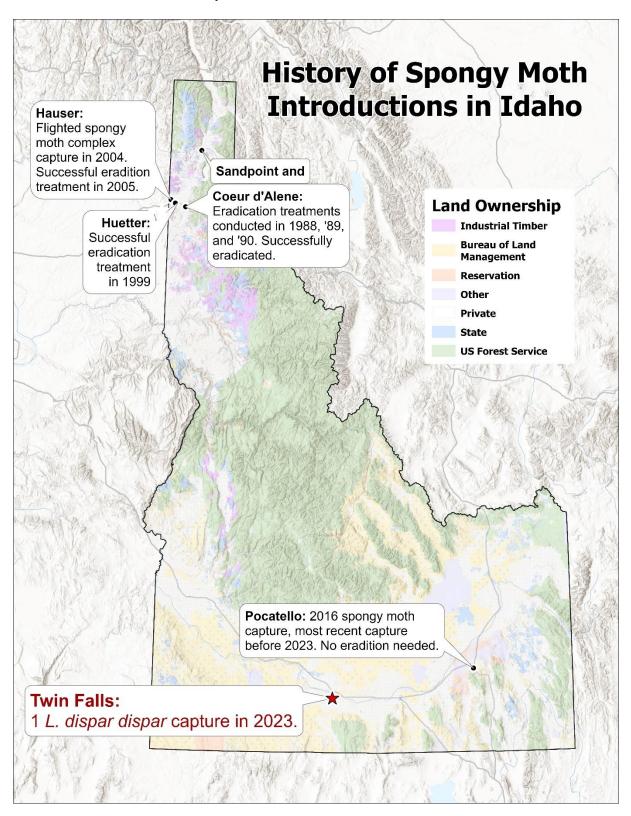


Figure 2: Map of spongy moth traps placed in Idaho in 2023 (2,020 total traps).

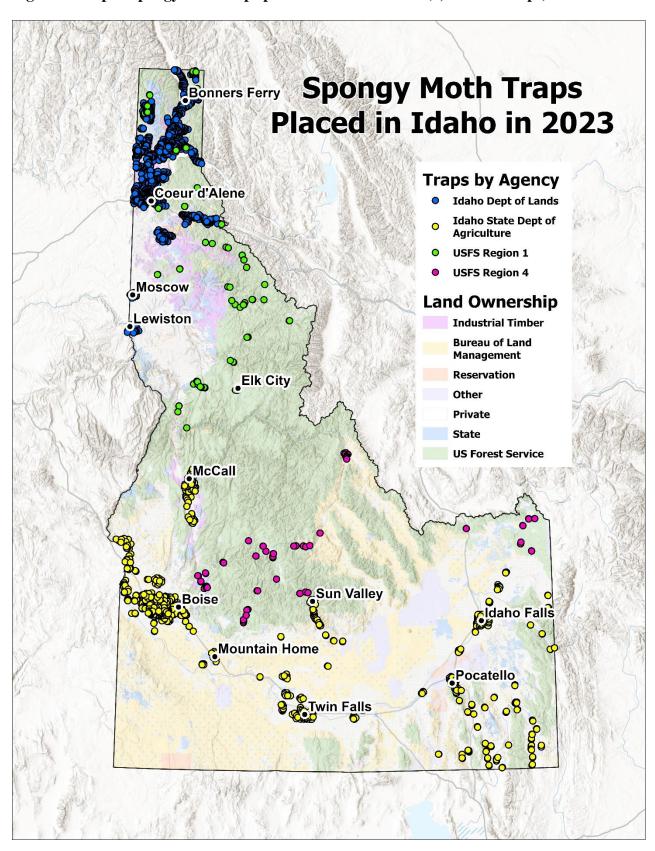
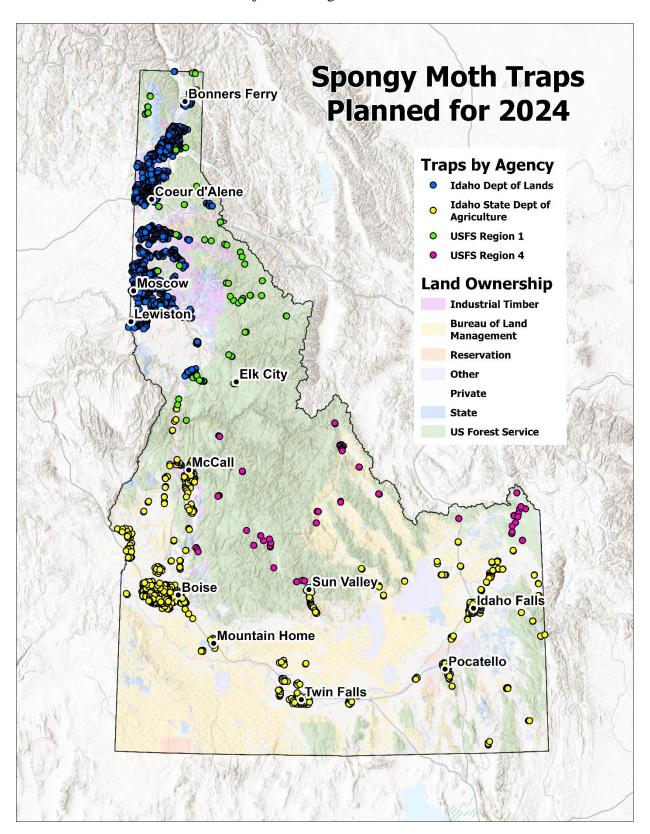


Figure 3: Map of spongy moth areas planned to be trapped in 2024. Approximately 2,146 detection traps are scheduled. Not shown are the 36 additional delimit traps and zones that may be added due to move-ins. Plans are subject to change.



REFERENCES

- Lech, Gretchen and Livingston, R. Ladd. 2004. State of Idaho gypsy moth survey trapping program summary report 2004. Report No. IDL 04-2.
- Liebhold, A.M, K.W. Gottschalk, R.M. Muzika, M. E. Montgomery, R. Young, K. O'Day and B. Kelley. 1995. Suitability of North American Tree Species to the Gypsy Moth: A Summary of Field and Laboratory Tests. USDA Forest Service GTR NE-211.
- Livingston, R. Ladd. 1990. State of Idaho, Summary report of 1990 gypsy moth eradication and survey efforts with a brief history of the gypsy moth and related activities from 1974 to 1989. Report No. IDL 90-7.
- Tisdale, Robert and Livingston, R. Ladd. 1990. Gypsy moth eradication program in Idaho 1989 Sandpoint and Coeur d'Alene, Bonner and Kootenai counties. Report No. IDL 90-4.

APPENDIX

SPONGY MOTH DECISION CRITERIA FOR TRAPPING PRIORITIES

Original decision criteria as to what areas (zones) or cities to conduct detection trapping for spongy moth in and on what schedule to trap were developed by the Gypsy Moth Technical Advisory Committee in 1989. Revisions have been made in succeeding years. The cities, towns, communities and rural areas of the state are categorized as follows:

Category 1 and Category S (Special) - High Risk (Map A). Detection surveys conducted annually. Category 1 includes larger cities and towns (population greater than 10,000) and areas where numerous people or families moving into the area (move-ins) each year cause a substantial risk of spongy moth infestation. Consideration was also given to cities with substantial recent population growth, colleges, industry, a military base, or tourism, such that annual detection trapping is advisable. APHIS guidelines recommend trapping these areas at a density of 1 trap per 1 square mile, however trap densities in Idaho have historically been higher than this recommendation. Trap densities have been slowly reduced to align with this recommendation more closely, and reductions are still underway. Category S (Special) – high risk sites are also trapped annually. Category S includes sites likely exposed to movement of infested vehicles and outdoor household articles (OHA) such as campgrounds, shipping hubs, trailer parks, state and federal parks, and tourist attractions.

Category 2 (Map B). This category includes smaller cities and towns with populations greater than 1,500 but which normally have fewer move-ins. Detection trapping will normally be done every second year. Half of category 2 communities are trapped in a given year, and the other half are trapped the following year. APHIS guidelines recommend trapping these areas at a density of 1 trap per 4 square miles, however densities in Idaho have historically been dramatically higher than this recommendation. Trap densities have been slowly reduced to approximately 1 trap per square mile, and reductions are still underway.

Category 3 (Map C). This category includes communities and other areas with populations generally less than 1,500. Through 2022, detection trapping has been done every third year. Approximately one third of the category 3 communities were trapped each year on a rotational basis. APHIS guidelines recommend trapping these areas at a density of 1 trap per 4 square miles, however densities in Idaho have historically been dramatically higher than this recommendation. Trap densities have been slowly reduced to approximately 1 trap per square mile, and reductions are still underway. Beginning in 2023, Category 3 sites will be trapped every 4 years to align with APHIS guidelines.

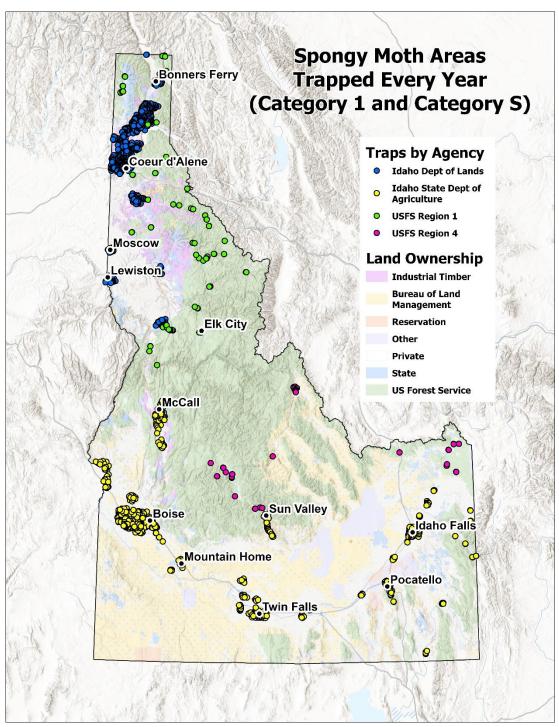
Previously, category 4 and 5 areas were designated for occasional trapping. In recent years, these areas have either been removed from the trapping rotation or upgraded to a category 3.

A large percentage of the spongy moth movement around the nation is brought about by families moving into a community and bringing spongy moth in various life stages (particularly egg masses) with them, usually on outdoor household items. For this reason, it was determined by this Technical Advisory Committee that if more than 20 move-ins occurred in a category 2 or 3 zone within a one-year period (May- April), that zone would be trapped that year, regardless of where it was in the normal schedule. This additional trapping will not interrupt or alter the regular schedule. A move-in is defined as an individual or family moving to Idaho from a state that is generally infested with spongy moth. This information is provided to the program by the Idaho Department of Transportation.

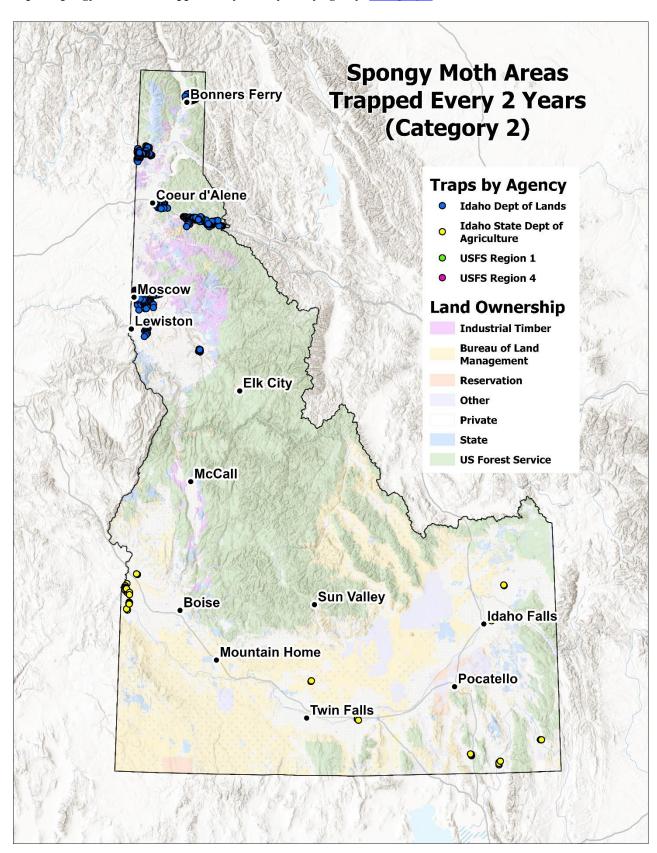
SPONGY MOTH TRAPPING SCHEDULE MAPS AND TABLE FOR IDAHO

This schedule and the number of traps have been updated over the years, so these maps may not reflect historical trapping. The following maps and table reflect trapping planned for 2023 onward. Additional zones from Category $\underline{2}$ or $\underline{3}$ (maps \underline{B} and \underline{C}) may also be trapped in any given year due to >20 move-ins from eastern state known to be infested with spongy moth. To request full historical trapping data, please contact the Idaho Department of Lands.

Map A: Spongy moth sites trapped every year by agency (Category 1 and Category S – High Risk).



Map B: Spongy moth sites trapped every other year by agency (Category 2).



Map C: Spongy moth sites trapped every 4 years by agency (<u>Category 3</u> + former Category 4).

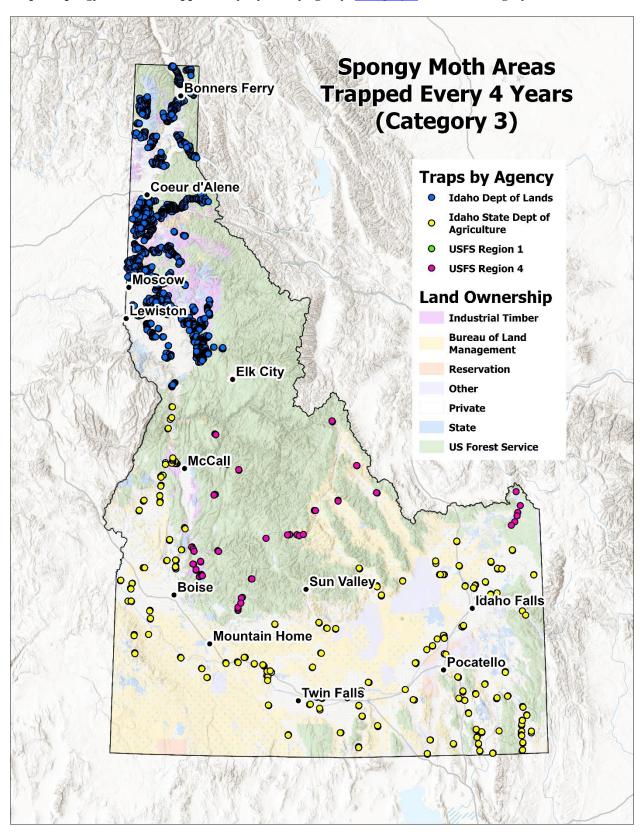


Table A: Trapping schedule for Idaho communities, 2018 – 2024 (planned). Communities that are trapped annually are listed in bold. Frequency of trapping may be changed by move-ins, an update to the zone category, or a change to the trapping frequency of the category. This schedule is subject to change.

Community	Category	Agency	Number of traps	2018	2019	2020	2021	2022	2023	Planned 2024
ABERDEEN	3	ISDA	3		X			X		
ACEQUIA	3	ISDA	2		X			X		
AHSAHKA	3	IDL	10		X			X		
ALBION	3	ISDA	2			X		X		
ALMO	3	ISDA	2		X			X		
ALPINE CG	S	ISDA	2	X	X	X	X	X	X	X
AMERICAN FALLS	1	ISDA	5	X	X	X	X	X	X	X
ARCO	3	ISDA	2			X				X
ARIMO	3	ISDA	2	X			X		X	
ASHTON	3	ISDA	2			X				X
ATHOL	1	IDL	33	X	X	X	X	X	X	X
ATLANTA	3	USFS - R4	2	X			X		X	
BAILEY CREEK	3	ISDA	2	X			X		X	
BANCROFT	3	ISDA	2	X			X		X	
BANIDA	3	ISDA	2	X			X		X	
BANKS	3	ISDA	2			X				X
BASALT	3	ISDA	2		X			X		
BAYHORSE (BLM) CG	S	USFS - R4	2	X	X	X	X	X	X	X
BEAUTY BAY	3	IDL	28	X			X			
BELLEVUE	1	ISDA	5	X	X	X		X	X	X
BENEWAH	3	IDL	18	X			X			X
BENNINGTON	3	ISDA	2	X			X		X	
BERN	3	ISDA	2	X			X		X	
BIG SPRINGS CG	s	USFS - R4	2	X	X	X	X	X	X	X
BIG WOOD RIVER NORTH	S	USFS - R4	6	X	X	X	X	X	X	X
BLACKFOOT	1	ISDA	6	X	X	X	X	X	X	X
BLACKROCK	3	ISDA	0	X	X	X	X	X	X	Deleted
BLISS	3	ISDA	6		X			X	X	
BLOOMINGTON	3	ISDA	2	X			X		X	
BOISE	1	ISDA	70	X	X	X	X	X	X	X
BONNERS FERRY	1	IDL	23	X	X	X	X	X	X	X
BONNERS SOUTH	3	IDL	10			X			X	
BORDER	S	IDL	4	X	X	X	X	X	X	X
BOVILL	3	IDL	6		X			X		X

Community	Category	Agency	Number of traps	2018	2019	2020	2021	2022	2023	Planned 2024
BOWMONT	3	ISDA	2	X			X		X	
BRUNEAU	3	ISDA	2		X			X		
BRUNEAU HOT SPRINGS	3	ISDA	2		X			X		
BUHL	1	ISDA	7	X	X	X	X	X	X	X
BULL TROUT CG	S	USFS - R4	2	X	X	X	X	X	X	X
BURLEY	1	ISDA	6	X	X	X	X	X	X	X
BUTTERMILK CG	S	USFS - R4	2	X	X	X	X	X	X	X
CALAMITY CG	S	ISDA	2	X	X	X	X	X	X	X
CALDER	3	IDL	5	X			X			X
CALDWELL	1	ISDA	32	X	X	X	X	X	X	X
CAMBRIDGE	3	ISDA	2			X				X
CAMERON	3	IDL	2		X			X		X
CARDIFF	3	IDL	2		X			X		
CAREY	3	ISDA	2	X			X		X	
CAREYWOOD	3	IDL	26			X				
CASCADE	1	ISDA	10	X	X	X	X	X	X	X
CASTLEFORD	3	ISDA	2		X			X		
CAVENDISH	3	IDL	7		X			X		X
CENTERVILLE	3	USFS - R4	2	X			X		X	
CHALLIS	3	USFS - R4	2			X				X
CHATCOLET	3	IDL	11	X			X			X
CHINA CAP	3	ISDA	2	X			X		X	
CLARK FORK	3	IDL	26			X			X	
CLARKIA	3	IDL	5	X			X			X
CLEARWATER	3	IDL	24		X			X		
CLIFTON	3	ISDA	2	X			X		X	
COEUR D'ALENE	1	IDL	139	X	X	X	X	X	X	X
COEUR D'ALENE RIVER	3	IDL	30	X			X			
COEUR D'ALENE WEST	1	IDL	42		X		X		X	X
COOLIN	3	IDL	24			X			X	
COTTONWOOD	3	IDL	15		X			X		
COUNCIL	3	ISDA	2			X				X
CRAIGMONT	3	IDL	5		X			X		
CROUCH	3	USFS - R4	2			X				X
CULDESAC	3	IDL	12		X			X		
DAYTON	3	ISDA	2	X			X		X	

Community	Category	Agency	Number of traps	2018	2019	2020	2021	2022	2023	Planned 2024
DEARY NORTH	3	IDL	16		X			X		X
DEARY SOUTH	3	IDL	15		X			X		X
DECLO	3	ISDA	2		X			X		
DEEP CREEK	3	IDL	28	X			X			X
DESMET	3	IDL	22	X			X			X
DIETRICH	3	ISDA	2		X			X		
DINGLE	3	ISDA	2	X			X		X	
DONNELLY	1	ISDA	9	X	X	X	X	X	X	X
DOWNEY	3	ISDA	2	X			X		X	
DRIGGS	1	ISDA	2	X	X	X	X	X	X	X
DUBOIS	3	ISDA	2			X				X
EAGLE	1	ISDA	21	X	X	X	X	X	X	X
EASTPORT	3	IDL	10			X			X	
EDEN	3	ISDA	3		X			X		
ELK CITY	S	USFS - R1	6	X	X	X	X	X	X	X
ELK RIVER	3	IDL	7		X			X		
ELMIRA	3	IDL	13			X			X	
EMIDA	3	IDL	12	X			X			X
EMMETT	1	ISDA	13	X	X	X	X	X	X	X
FAIRFIELD	3	ISDA	2	X			X		X	
FALLS CG	S	ISDA	2	X	X	X	X	X	X	X
FARRAGUT	S	IDL	7	X	X	X	X	X	X	X
FEATHERVILLE	3	USFS - R4	3	X			X		X	
FERDINAND	3	IDL	3		X			X		
FERNWOOD	3	IDL	24	X			X			X
FILER	1	ISDA	4	X	X	X	X	X	X	X
FIRTH	3	ISDA	2		X			X		
FISH HAVEN	3	ISDA	2	X			X		X	
FLAT ROCK CG	S	USFS - R4	2	X	X	X	X	X	X	X
FORT HALL	3	ISDA	2		X			X		
FOUR CORNERS	3	IDL	7			X			X	
FRANKLIN	3	ISDA	2	X			X		X	
FRASER	3	IDL	42		X			X		
FRUITLAND	1	ISDA	7	X	X	X	X	X	X	X
FRUITVALE	3	ISDA	2			X	X			X
GANNETT	3	ISDA	2	X			X		X	
GARDEN VALLEY	3	USFS - R4	2			X				X

Community	Category	Agency	Number of traps	2018	2019	2020	2021	2022	2023	Planned 2024
GARDENA	3	ISDA	2			X				X
GENESEE	3	IDL	3		X			X		X
GEORGETOWN	3	ISDA	2	X			X		X	
GIVENS HOT SPRINGS	3	ISDA	0	Deleted						
GLACIER VIEW CG	S	USFS - R4	2	X	X	X	X	X	X	X
GLEASON MEADOWS	3	IDL	4			X			X	
GLENNS FERRY	3	ISDA	2					X		
GLENWOOD	3	IDL	34		X			X		
GOLD HILL	3	IDL	9		X			X		X
GOODING	1	ISDA	8	X	X	X	X	X	X	X
GRACE	3	ISDA	2	X			X		X	
GRANDJEAN CG	S	USFS - R4	2	X	X	X	X	X	X	X
GRANDVIEW	3	ISDA	2		X			X		
GRANGEMONT	3	IDL	13		X			X		
GRANGEVILLE	1	IDL	28	X	X	X	X	X	X	X
GREENLEAF	3	ISDA	2	X			X		X	
HAGERMAN	3	ISDA	4		X			X		
HAILEY	1	ISDA	11	X	X	X		X	X	X
HAMER	3	ISDA	2			X				X
HAMMETT	3	ISDA	2		X			X		
HANSEN	3	ISDA	2		X			X		
HARRIS RIDGE	3	IDL	16		X			X		
HARRISBURG	3	IDL	17		X			X		
HARRISON	3	IDL	47	X			X			
HAZELTON	3	ISDA	2		X			X		
HEADQUARTERS	3	IDL	2		X			X		
HEISE	3	ISDA	1		X			X		
HELMER	3	IDL	11		X			X		X
HEYBURN	2	ISDA	3	X		X		X		X
HILL CITY	3	ISDA	0	Deleted						
HOLBROOK	3	ISDA	2	X			X		X	
HOMEDALE	2	ISDA	2	X		X		X		X
НОРЕ	3	IDL	18			X			X	
HORSESHOE BEND	3	ISDA	4			X				X
HOWE	3	ISDA	2			X				X
HUSTON	3	ISDA	0	Deleted						
IDAHO CITY	3	USFS - R4	4	X			X		X	

Community	Category	Agency	Number of traps	2018	2019	2020	2021	2022	2023	Planned 2024
IDAHO FALLS	1	ISDA	49	X	X	X	X	X	X	X
INDIAN VALLEY	3	ISDA	2			X				X
INKOM	3	ISDA	2		X			X		
IONA	2	ISDA	1		X			X		X
IRON CREEK CG	S	USFS - R4	2	X	X	X	X	X	X	X
ISLAND PARK	3	USFS - R4	6			X				X
JAYPE	3	IDL	5		X			X		
JEROME	1	ISDA	5	X	X	X	X	X	X	X
JULIAETTA	3	IDL	10		X			X		X
KAMIAH	2	IDL	9		X			X		X
KAMIAH EAST	3	IDL	19		X			X		
KAMIAH NORTH	3	IDL	5		X			X		
KELLOGG/PINEHURST	2	IDL	30	X	X	X		X	X	
KENDRICK	3	IDL	9		X			X		X
KETCHUM	1	ISDA	11	X	X	X	X	X	X	X
KING HILL	3	ISDA	2		X			X		
KOOSKIA	3	IDL	4		X			X		
KREIGER CREEK	3	IDL	9			X				
KUNA	1	ISDA	18	X	X	X	X	X	X	X
LACLEDE	3	IDL	8			X				
LAMB CREEK	3	IDL	17			X			X	
LAPWAI	2	IDL	13		X			X		X
LARSON	3	IDL	6		X			X		
LAVA HOT SPRINGS	3	ISDA	2	X			X		X	
LEADORE	3	USFS - R4	2			X				X
LELAND	3	IDL	6		X			X		X
LENORE	3	IDL	15		X			X		
LETHA	3	ISDA	2	X			X		X	
LEWISTON	1	IDL	39	X	X	X	X	X	X	X
LEWISVILLE	3	ISDA	2		X			X		
LOWELL	3	IDL	5		X			X		
LOWER MESA CG	S	USFS - R4	2	X	X	X	X	X	X	X
LOWMAN	3	USFS - R4	2	X			X		X	
LUCILLE	3	ISDA	2			X				X
MACKAY	3	ISDA	2			X				X
MALAD CITY	2	ISDA	4		X		X		X	

Community	Category	Agency	Number of traps	2018	2019	2020	2021	2022	2023	Planned 2024
MALTA	3	ISDA	2		X			X		
MARSING	3	ISDA	3	X			X		X	
MASACRE ROCK	3	ISDA	1		X			X		
MAY	3	USFS - R4	2			X				X
MCABEE FALLS	3	IDL	12			X			X	
MCCALL	1	ISDA	41	X	X	X	X	X	X	X
MCCAMMON	3	ISDA	3	X			X		X	
MCCOY CG	S	ISDA	2	X	X	X	X	X	X	X
MELBA	3	ISDA	2	X			X		X	
MENAN	3	ISDA	2		X			X		
MERIDIAN	1	ISDA	36	X	X	X	X	X	X	X
MESA	3	ISDA	2			X				X
MICA BAY	3	IDL	18	X			X			
MIDDLETON	1	ISDA	17	X	X	X	X	X	X	X
MIDVALE	3	ISDA	2			X				X
MIKE HARRIS CG	S	ISDA	2	X	X	X	X	X	X	X
MINIDOKA	3	ISDA	2		X			X		
MINK CREEK	3	ISDA	1	X			X		X	
MONTEVIEW	3	ISDA	2			X				X
MONTPELIER	2	ISDA	2	X		X		X		X
MOORE	3	ISDA	2			X				X
MORELAND	3	ISDA	2		X			X		
MOSCOW	1	IDL	19	X	X	X	X	X	X	X
MOUNTAIN HOME	1	ISDA	12	X	X	X	X	X	X	X
MOUNTAIN HOME AFB	1	ISDA	4	X	X	X	X	X	X	X
MOYIE EAST	3	IDL	8		X	X			X	
MOYIE SPRINGS	2	IDL	27		X	X			X	
MT. HEYBURN CG	s	USFS - R4	2	X	X	X	X	X	X	X
MUD LAKE	3	ISDA	2			X				X
MURPHY	3	ISDA	1		X			X		
MURRAY	3	IDL	6	X			X			X
MURTAUGH	3	ISDA	2		X			X		
NAMPA	1	ISDA	38	X	X	X	X	X	X	X
NAPLES	3	IDL	28			X			X	
NEW MEADOWS	3	ISDA	9			X				X
NEW PLYMOUTH	2	ISDA	2	X			X		X	
NEWDALE	3	ISDA	2			X				X

Community	Category	Agency	Number of traps	2018	2019	2020	2021	2022	2023	Planned 2024
NORDMAN	3	IDL	8			X			X	
NORTH FORK	3	USFS - R4	2			X				X
NOTUS	3	ISDA	2	X			X		X	
OAKLEY	3	ISDA	2		X			X		
OLA	3	ISDA	2			X				X
OREANA	3	ISDA	0	Deleted						
OROFINO	1	IDL	32	X	X	X	X	X	X	X
OROFINO SE	3	IDL	16		X			X		
OSBURN	2	IDL	23		X		X		X	
OVID	3	ISDA	2	X			X		X	
OXFORD	3	ISDA	2	X			X		X	
PACK RIVER	3	IDL	11			X			X	
PARIS	3	ISDA	2	X			X		X	
PARKER	3	ISDA	2			X				X
PARMA	2	ISDA	11		X				X	
PAUL	3	ISDA	2		X			X		
PAYETTE	1	ISDA	11	X	X	X	X	X	X	X
PEARL	3	ISDA	0	Deleted						
PECK	3	IDL	9		X			X		
PICABO	3	ISDA	2	X			X		X	
PIERCE	3	IDL	6		X			X		
PINE	3	USFS - R4	3	X			X		X	
PINE CREEK CG	S	ISDA	2	X	X	X	X	X	X	X
PINGREE	3	ISDA	2		X			X		
PIONEERVILLE	3	USFS - R4	2	X			X		X	
PLACERVILLE	3	USFS - R4	2	X					X	
PLEASANTVIEW	3	ISDA	0	X			X		X	Deleted
PLUMMER	3	IDL	23	X			X			X
POCATELLO	1	ISDA	32	X	X	X	X	X	X	X
POLLOCK	3	ISDA	2			X				X
PORTHILL	3	IDL	26			X			X	
POST FALLS	1	IDL	57	X	X	X	X	X	X	X
POTLATCH	3	IDL	21	X			X			X
POTLATCH SOUTH	3	IDL	53	X			X			X
PRESTON	1	ISDA	4	X	X	X	X	X	X	X
PRIEST RIVER	2	IDL	31	X	X	X	X	X	X	
PRIEST RIVER SOUTH	2	IDL	24	X	X	X	X	X	X	

Community	Category	Agency	Number of traps	2018	2019	2020	2021	2022	2023	Planned 2024
RATHDRUM	1	IDL	41	X	X	X	X	X	X	X
REUBENS	3	IDL	3		X			X		
REXBURG	1	ISDA	8	X	X	X	X	X	X	X
REYNOLDS	3	ISDA	2		X			X		
RICHFIELD	3	ISDA	2	X					X	
RIDDLE	3	ISDA	0	Deleted						
RIGBY	1	ISDA	4	X	X	X	X	X	X	X
RIGGINS	3	ISDA	2			X				X
RIRIE	3	ISDA	2		X			X		
RIVERSIDE	3	ISDA	2		X			X		
RIVERSIDE CG	S	USFS - R4	2	X	X	X	X	X	X	X
ROBERTS	3	ISDA	2		X			X		
ROBIN	3	ISDA	2	X			X		X	
ROCKFORD	3	ISDA	1		X			X		
ROCKFORD BAY	3	IDL	29	X			X			
ROCKLAND	3	ISDA	2		X			X		
ROGERSON	3	ISDA	4					X		
ROSE LAKE	3	IDL	59	X			X			
ROSWELL	3	ISDA	2	X			X		X	
RUPERT	1	ISDA	5	X	X	X	X	X	X	X
RURAL MOSCOW	2	IDL	117		X			X		X
SAGLE EAST	1	IDL	51	X	X	X	X	X	X	X
SAGLE WEST	1	IDL	82	X	X	X	X	X	X	X
SALMON	1	USFS - R4	9	X	X	X	X	X	X	X
SALMON RIVER	2	USFS - R4	5		X		X		X	
SAMARIA	3	ISDA	2	X			X		X	
SANDPOINT	1	IDL	101	X	X	X	X	X	X	X
SCOUT MOUNTAIN CG	S	ISDA	2	X	X	X	X	X	X	X
SHELLEY	1	ISDA	2	X	X	X	X	X	X	X
SHOSHONE	2	ISDA	2					X		X
SILVER CITY	3	ISDA	2					X		
SLICKPOO MISSION	3	IDL	6		X			X		
SMITHS FERRY	3	ISDA	2			X	X			X
SMOKEY BEAR CG	S	USFS - R4	2	X	X	X	X	X	X	X
SODA SPRINGS	1	ISDA	4	X	X	X	X	X	X	X
SOUTHWICK	3	IDL	15		X			X		X

Community	Category	Agency	Number of traps	2018	2019	2020	2021	2022	2023	Planned 2024
SPALDING	3	IDL	10		X			X		
SPIRIT LAKE	1	IDL	43	X	X	X	X	X	X	X
SPRINGFIELD	3	ISDA	1		X			X		
ST. ANTHONY	1	ISDA	3	X	X	X	X	X	X	X
ST. CHARLES	3	ISDA	2	X			X		X	
ST. MARIES	1	IDL	46	X	X	X	X	X	X	X
STANLEY	3	USFS - R4	1			X				X
STANLEY LAKE CG	S	USFS - R4	2	X	X	X	X	X	X	X
STAR	1	ISDA	10	X	X	X	X	X	X	X
STARKEY	3	ISDA	2			X				X
STIBNITE	3	USFS - R4	2			X	X			X
STITES	3	IDL	22		X			X		
STODDARD CREEK CG	S	USFS - R4	2	X	X	X	X	X	X	X
STONE	3	ISDA	2		X			X		
SUGAR CITY	2	ISDA	2			X				X
SUNNY GULCH CG	S	USFS - R4	2	X	X	X	X	X	X	X
SWAN VALLEY/IRWIN	3	ISDA	2		X			X		
SWEET	3	ISDA	2			X				X
SYRINGA	3	IDL	2		X			X		
TAHOE RIDGE	3	IDL	22		X			X		
TAMARACK	3	ISDA	2			X	X			X
TENDOY	3	USFS - R4	2			X				X
TERRETON	3	ISDA	2			X				X
TETON	3	ISDA	2			X				X
TETONIA	3	ISDA	2			X				X
THORNTON	3	ISDA	2			X				X
TUTTLE	3	ISDA	2					X		
TWIN FALLS	1	ISDA	38	X	X	X	X	X	X	X
UCON	3	ISDA	2		X			X		
USFS-R1	S	USFS - R1	104	X	X	X	X	X	X	X
VICTOR	1	ISDA	2	X	X	X	X	X	X	X
WALLACE	2	IDL	21	X			X		X	
WARM LAKE	3	USFS - R4	3			X				X
WARREN	3	USFS - R4	3			X				X
WEIPPE	3	IDL	32		X			X		

Community	Category	Agency	Number of traps	2018	2019	2020	2021	2022	2023	Planned 2024
WEISER	1	ISDA	17	X	X	X	X	X	X	X
WENDELL	1	ISDA	8	X	X	X	X	X	X	X
WESTON	3	ISDA	2	X			X		X	
WHITEBIRD	3	IDL	8		X			X		
WILDER	2	ISDA	4	X					X	
WINCHESTER	3	IDL	16		X			X		
WOLF LODGE	2	IDL	22	X	X	X		X	X	
WORLEY	3	IDL	25	X			X			
WRENCO	3	IDL	16			X			·	
YELLOW PINE	3	USFS - R4	2			X				X