

Smith River Flea Beetle Bash

4. Description of the Project

History

The Smith River is one of Montana's premier float fishing rivers. Besides great fishing and a limited number of permits to float this river, a scenic and healthy environment is considered an important part of the experience by many recreational users. One of the major noxious weeds that damage this experience along the Smith River corridor is leafy spurge. Leafy spurge also damages the productivity of the adjacent lands. Various tools within the IPM tool box have and are being applied including biological weed control. It is felt by many of the individuals and groups involved with the Smith that a greatly enhanced leafy spurge flea beetle release effort would go a long way towards completing this aspect of the biological weed control strategy for this corridor.

Purpose

1) To produce educational materials about this Smith River project for the Augusta and Whitehall teachers. The Power Point(s) and data produced will be offered to other teachers through out the State. 2) To bring together the Augusta and Whitehall schools biological weed control crews along with interested landowners, individuals, groups, counties, and agencies in an effort to collect a large amount of leafy spurge flea beetles near Augusta and release these along the Smith River corridor during a two week cooperative effort. 3) To monitor at frequent intervals for establishment, bio-control species present, and damaged leafy spurge. 4) To produce before and after educational newspaper articles for local and regional newspapers.

Cooperative Participation

The two high school crews cooperating are Augusta with a teacher and one student and Whitehall with two teachers and three students. Other cooperators include: 1) the land owner(s) of the flea beetle collection sites, 2) several Smith River corridor land owners [Debra Anderson, Ken McKamey, Janet Williams, and Vic Anderson], 3) several individual volunteers, 4) the Smith River Habitat Project [an group of local land owners, commercial users, and State and Federal agencies], 5) Montana Fly Fishing Connection (the outfitter), 6) Meagher and Cascade Counties, 7) Montana Department of Fish, Wildlife and Parks, and 8) Jay Winfield, USDA Forest Service, Rangeland Management Specialist.

Location of Project

The collection site(s) will be near Augusta (they had an excellent site last summer which should be as good or better in 2011) or where ever they can be found. After several intense days of collections the high school crews will float and release along the Smith River starting from Debbie Anderson's property and will take out at the McKamey Ranch (about a 25 mile stretch). Otto Ohlson (Meagher County Weed Supervisor) and others will make distributions on Tenderfoot - upstream from where the student crews put in.

5. Specific Objectives and Methodology

Benefits

1) Education: The high school crews involved will learn much about the biological control of leafy spurge in Montana as well as how to put a project like this together. The teachers will bring back data, photos and from this put together presentations useful in their classrooms. These data, photos and Power Point(s) will be offered to other Montana teachers. Students/teachers will write before and after educational newspaper articles for local and regional newspapers.

- 2) Biological Weed Control: Weather and collection sites permitting - from 500,000 to 2 million mixed species of leafy spurge flea beetles (*Aphthona* sp.) will be collected and then released along the popular Smith River corridor to augment the biological weed control efforts already in place. Some *Oberea* may also be collected along with the flea beetles.
- 3) Monitoring: The high school crews will periodically monitor for biological weed control agent species present and their damage to leafy spurge.
- 4) Cooperation: Two high school crews will cooperate with: 1) the land owner(s) of the flea beetle collection sites, 2) several Smith River corridor land owners [Debra Anderson, Ken McKamey, Janet Williams and Vic Anderson], 3) several individual volunteers, 4) the Smith River Habitat Project [a group of local land owners and commercial users], 5) Montana Fly Fishing Connection (the outfitter), 6) Meagher and Cascade Counties, 7) Montana Department of Fish, Wildlife and Parks, and 8) USDA Forest Service.

Objectives

- 1) To gather educational materials for our classes and to share these with other Montana educators.
- 2) Educate our crews about leafy spurge control and the Smith River.
- 3) Release from 500,000 to 2 million mixed species of leafy spurge flea beetles (*Aphthona* sp.) along the Smith River corridor.
- 4) Periodically monitor the biological weed control agents for leafy spurge along a 25 mile stretch of the Smith.
- 5) Foster cooperation between all interested parties and share the data collected with all.
- 6) Students/teachers will write before and after newspaper articles for local and regional newspapers.
- 6) To provide our hard working student crews with a safe, enjoyable adventure floating and conducting insect releases on the Smith River.

Plan of Work

In the spring cooperators will be contacted, hotel rooms reserved and supplies will be purchased. Specifically, paper insect containers, sweep net bags, and 2 robust coolers. The flea beetle accelerators will be repaired. Secure administrative float permit and reserve camp sites.

In early summer, monitor collection sites and write newspaper articles. Just after the July 4th holiday, the Whitehall crew will drive up to Augusta and the combined crews plus many volunteers, county and agency personal will collect flea beetles for up to 3 days. The timing of this is dependent upon the weather. The early collections will be taken and released on the upper portion (Tenderfoot) of the Smith River by Otto Ohlson (Meagher County Weed Coordinator) and others. The rest of the flea beetles will be released as the Augusta and Whitehall crews float from Debbie Anderson's property to the McKamey Ranch (about a 25 mile stretch) of the lower Smith River. All release sites locations will be gps recorded and photographed. Crews will regularly monitor for the presence of bio-agents and damage to leafy spurge. Photos will be gathered for classroom use. After take out, the crews will travel home. The next week the crews will write follow up newspaper articles. The release site and monitoring data will be sent to all interested parties.

During the 2011-12 school year the teachers will use this experience and photos/data in their classrooms. They will also produce a Power Point(s) and share these via email with other Montana teachers.

In-kind activities

The high school crews will both use their classrooms/labs and existing program equipment such as refrigerators, sweep nets, gps units, digital cameras, computers, coolers, ice packs and accelerators. The teachers (Todd Breitenfeldt and Mike Battaiola, Whitehall, and Katy Meier, Augusta) will do much unpaid planning,

educational preparation, and communicating with the other cooperators. Colin Maas, Smith River State Park Manager will set up the administrative float permit and camp sites. He and/or members of his staff may help collect flea beetles. Various local volunteers will put in several days worth of time helping the crews collect flea beetles. Joe Weigand, MTFWP Private Lands Wildlife Specialist will help with the location of release sites. He and/or some of his staff may help collect. Sherry Meador, Smith River Habitat Project will volunteer much time organizing this project as well as attending some of the collections and the float. Other members of this organization which includes Smith River land owners and commercial users, may volunteer time collecting/releasing. Otto Ohlson (Meagher County Weed Coordinator) and/or members of his staff may help with the collection efforts and will release insects on the upper portion of the Smith River. Ryan Arkondas (Cascade County Weed Coordinator) and/or his staff may help with collections or releases. Outfitter Joe Sowerby, Montana Fly Fishing Connection is providing his services at “bare bones” cost and will donate back as a match, equipment rental and shuttle fees. Jay Winfield, USDA Forest Service Rangeland Management Specialist will help us set release site selection criteria and may help with collections.

Evaluation

Success will be deemed by:

- 1) The production of noxious weed education for the crew, the teacher’s students, for other teachers to use with their students, and via published pre and post project newspapers articles for the general public.
- 2) The release of at least 500,000 flea beetles along the Smith River corridor.
- 3) The participation of a majority of the listed cooperators and the data shared with all interested parties.
- 4) The high school students feeling as if they have contributed to a worth while cause and, having a safe and enjoyable time.
- 5) [FYI, not part of this grant: the catching of a few foolish trout after a days work well done....]

6. Time Schedule

2011

April: Contact all parties involved and review project. Reserve rooms in Augusta and be sure the outfitter is prepared.

May: Order equipment needed for collections (insect containers, coolers, sweep net bags, etc.). [FYI, ☺ not part of grant: Tie flies, some of which will mimic biological weed control agents.]

June: Secure administrative float permit from Colin Maas, Smith River State Park Manager. Reserve camp sites well before float. Augusta crew will monitor for collection sites. Write educational articles for local and major newspapers about the project.

July: Right after the 4th (weather dependent) the Whitehall crew will travel to Augusta and collect flea beetles with the Augusta crew and a number of local, county and agency helpers for about 3 days. A portion of these insects will be released upstream of the put in by others. The high school crews will then meet up with the outfitter, put in at Debbie Anderson’s property and take out at the McKamey Ranch (about a 25 mile stretch). Along the three-day float the crews will make logical releases (gps located and photographed), monitor, and prepare educational photos and data. The students and teachers will write follow up newspaper articles describing the success of the project.

August: Share all these data with interested cooperators.

2011-12 School Year: The teachers will use the collected educational materials in their classrooms and share this with other Montana teachers via email lists.

End. Thank you for reading this grant! TB.