

Project Number: 23013

Project Title: Locate, Mark, and Removal of Lost “Ghost” Fishing Nets in Selected Columbia River Reservoirs: A Feasibility Study

Sponsor: CRITFC

TO: Tom Giese, CBFWA

FROM: Blaine L. Parker, Fish Management, CRITFC
Kevin Kappenman, Fish Management, CRITFC

SUBJECT: Comments regarding ISRP comments on Proposal ID: 23013

Please find attached responses to the questions and comments from the Independent Scientific Review Panel (ISRP).

ISRP Question #1: How many nets are reported lost each year? Is this really a problem?

Sponsor response: In Zone 6 (the Columbia River from Bonneville Dam to McNary Dam), tribal commercial and subsistence fisheries use both surface and bottom set gillnets to harvest anadromous salmonids, white sturgeon, walleye, carp, and shad during specific fishing seasons. These seasons are primarily in the late winter and early spring and in the late summer and early fall. During the course of these fisheries, gillnets can be lost for a variety of reasons. The most common problem is the accidental and sometimes intentional loss (i.e. vandalism) of marker floats that note the location of each net. Nets can also be snagged by industrial shipping and moved considerable distances from their original set location, making prompt retrieval difficult if not impossible.

From 1995-2000, the Columbia River Inter-Tribal Fisheries Enforcement office in Hood River, Oregon recorded a total of 50 diver gillnets as missing or possibly stolen. These nets are still at large. Many nets are reported as missing, but are found later and recovered. There are no records regarding the numbers of fish in the nets at the time of recovery. Records prior to 1995 are incomplete and less detailed.

Equally interesting is the transition of using biodegradable fibers (i.e. cotton) for net webbing to the use of synthetic materials during the 1960’s. The obvious concern is the long-term persistence of synthetics versus the biodegradability of natural fibers. In talking with local tribal fishers and net suppliers, it was noted that synthetic (e.g. nylon and monofilament) fiber gillnets have been used in Zone 6 since the late 1960’s. Unlike linen or cotton fiber netting, synthetic material is long lasting, even out of the water (Johnson 1989). Given the long life of synthetic materials and the limited loss data from CRITFE, the potential is high for the presence and persistence of many gillnets at large in the Zone 6 management area. Using the data available, if we assume that over a 30-year period (i.e. 1970-2000) an average of 50 nets were lost every 6 years, an estimated 250 nets were lost over the 30 years. In reviewing the lost nets reported to CRITFE, I calculated the mean length of each lost net at 293 feet. If we multiply this mean length with the estimated 250 lost nets over 30 years, we could expect that approximately 13.9

miles of webbing to be present in the Columbia River within the Zone 6 management area.

Additional information was received in 1999, when a Yakama Nation fisheries technician noted the presence of lost nets during sturgeon tagging efforts in Bonneville Pool in 1999. The tagging crew near the mouth of the Klickitat River temporarily lost a gill net. Subsequent recovery efforts were successful at retrieving the lost net, but also yielded two additional nets. These nets, later recovered by CRITFE personnel contained substantial numbers of dead and decaying fish, although no information was collected regarding numbers or species. This illustrates the ongoing risk to listed Columbia Basin salmon species and also to white sturgeon and other resident fish species from the lost gillnets in management Zone 6. Lost nets are definitely a problem, but the magnitude of the problem is undetermined at the present time.

ISRP Question #2: Are there requirements to report lost nets?

Sponsor Response: No and Yes. Tribal fishers are not required to report lost fishing gear, but it is their best interest to do so. Since tribal fishers are required to label their gear with their name or enrollment number, identification is generally known. If they don't report the gear as missing, they could be cited if the gear was found after a seasonal closure or if it drifted into a sanctuary where fishing was prohibited. The reporting rate is not known. The CRITFE has kept records of lost and stolen gillnets since 1993. I focused the analysis on just diver gillnets, but scaffold nets and floating gillnets are also lost during fishing activities. The average reported loss rate per year is 8 diver gillnets, with ranges of 6-11 diver gillnets per year. These numbers only represent the minimum number of nets lost, as some lost nets are unreported.

In addition to the previous two questions, ISRP reviewers also had two concerns regarding technical feasibility. These are as follows:

ISRP Concern #1: What is the delectability of the nets?

Sponsor Response: It will vary greatly from easy to very difficult. Modern sonar equipment that will be used in the project is quite sophisticated and will be able to "identify" fairly small objects on the river bottom. Personnel at CRITFC are experienced with this equipment and have noted that objects as small as a sturgeon setline with baited hooks is clearly discernable on the river bottom. The setline line is a single 3/8" rope with baited hooks, much smaller and less complex than a gillnet with 4" corks, webbing, and a heavy lead line. Granted, the degree of difficulty will increase with the amount of debris in the mesh and how deeply it may be buried into the riverbed. Recently lost nets will likely be relatively easy to find, whereas the nets that have been at large for a long time maybe completely covered and not accessible to the sonar. The company which manufactured the side scan device which we plan to deploy (if funded) is Marine Sonic Technology, Ltd. See their website for sample images collected using their technology (www.marinesonic.com).

ISRP Concern #2: What is the feasibility of retrieving the nets?

Sponsor Response: As with the previous concern, it will likely range from easy to very difficult. Nets that are recently lost and free of large objects such as trees or stumps should be relatively easy to snag and recover. Tribal fishers commonly retrieve recently lost nets with nothing more than a heavy rope and a homemade grappling hook. Nets that have been lost for some time will likely be laden with debris and quite heavy. Others may be wrapped around rocks, sunken trees and navigation markers and will be very difficult to remove. On the water recovery strategies will have to be fluid and adaptable to meet a variety of situations. We plan on working with local fishers and law enforcement staff who have some experience with these recoveries, as well as learning some novel methods once the recover portion of the project has been implemented.

References:

Johnson, S.W. 1989. Deposition, fate, and characteristics of derelict trawl web on an Alaskan beach. *Marine Pollution Bulletin*. Vol. 20, No. 4, pp. 164-168.

From: "Blaine Parker" <PARB@critfc.org>
To: GWCB.GWPDJ(Tom)
Date: 2/12/01 4:20PM
Subject: Re: "Format" for responses to ISRP Comments due to CBFWAbyFebruary 12

Please find attached our responses to the ISRP questions and comments.

Blaine Parker, Fish Management, Columbia River Inter-Tribal Fish Commission

>>> "Tom Giese" <Tom@cbfwf.org> 02/07 3:26 PM >>>
The "format" is outlined in the attached memo.

CC: GWCB.GWIA("MATM@critfc.org","LUMP@critfc.org","KAP...