



Northern Abalone Scientific Session and Recovery Workshop
Georgia Basin Puget Sound Research Conference, Vancouver, BC
Tuesday, March 27, 2007

Meeting Summary Prepared by Joe Gaydos, The SeaDoc Society

On March 27th, the SeaDoc Society convened a group of 26 people from Washington State, British Columbia, U.S. and Canadian federal agencies, and first nations (see Appendix I for names and contacts) to discuss declines and recovery efforts for northern or pinto abalone (*Haliotis kamtschatkana kamtschatkana*). The meeting was convened at the 2007 Georgia Basin Puget Sound Research Conference immediately following a specially organized conference session on northern abalone. Gary Davis of the National Park Service chaired the extremely successful meeting.

Following seven formal conference session presentations on northern abalone declines (see Appendix II), there was general consensus that northern abalone populations were in poor condition in Washington and British Columbia and likely throughout their range. Melissa Newman of NOAA Fisheries gave a presentation on the white abalone entitled “Developing a sound recovery strategy for the first endangered marine invertebrate, white abalone (*Haliotis sorenseni*).” This gave the meeting participants a realistic overview of how ESA listing has and has not helped recover this species.

Participants were then asked to enumerate what they hoped to gain from this meeting. The following goals were identified by participants:

- Set up a W. Coast Abalone effort or group (possibly including other species in addition to northern abalone)
- Discuss the value of petitioning for federal listing N. abalone under the US ESA as well as a pursuing a CITES listing
- Developing a mechanism for transboundary (US-Canada) collaboration on enforcement for poaching multiple abalone species
- Discuss different methods for human intervention for northern abalone recovery
- Discuss what can be done by citizens level to support abalone recovery, including use of the 75,000 recreational SCUBA divers in Washington State
- Decide how we could put together a range-wide comprehensive review on the structure and status of northern abalone populations, especially a review article in a peer-reviewed journal on status and trends throughout its range (IUCN supposedly has done a range-wide status review on N. abalone)
- Identify a list of fundable activities that would lead to recovery actions
- Make a list of the people and organizations missing from this working group, including tribal governments (U.S.), industry and representatives from Mexico, California, Oregon, Washington, and Alaska. Note: people invited, but unable to attend the workshop are listed in Appendix III and a list of additional people to include is listed in Appendix IV.

The tasks addressed were as follows:

1. Formation of a northern abalone working group

It was decided that everything else from this meeting could be organized as sub-categories under this over-arching working group. Understanding that international abalone symposia are held every three years, it was determined that a northern abalone specific group should be formed. This group should be formalized to facilitate participation by people employed by Tribal / First Nation, Federal, State and Provincial agencies. Although a formal title was not agreed upon (at least one that had a cool acronym was not agreed upon), a charter was developed and agreed upon (Appendix V).

It was suggested that one initial function of this group could be to approach the governors of California, Oregon and Washington, who have recently signed a tri-state agreement to work collaboratively on ocean issues. Canada currently seems to be leading the efforts on northern abalone recovery. A recovery strategy has been finalized and they have a draft action plan (not signed by the minister, but one that is being used and is more specific on implementation than recovery strategy). The recovery strategy is being updated and this June will be adopted under the Species at Risk Act. In the US, California took a state-wide approach looking at all abalone species within the state and broke it into management of the harvested red abalone and recovery of non-harvested species. This plan does not include details on recovery of the N. abalone; it is based more on looking at density, recruitment and area-wide recruitment.

There was general consensus that the Canadian work and the California plan could be morphed together into a RESTORATION PLAN for coast wide northern abalone recovery plan. Joanne Lessard is currently writing a range-wide northern abalone status review for COSEWIC and the first draft of this will be done by February '08. This comprehensive review is critical for recovery efforts on both sides of the boarder and as long as it is done as planned, participants saw no reason to try and duplicate this effort in the US.

2. Discussion about wanting to work beyond N. abalone

There was discussion as to whether this group should take on more than just northern abalone recovery. It was pointed out that numerous species were in decline from California to Alaska and that efforts focused on multiple species would be more fundable by some grants. Ultimately it was decided that the expertise of the people in the room was northern abalone and that is where efforts should be focused at this time.

3. Discussion about voluntary recovery planning vs. seeking a US Federal listing

It was discussed that getting an ESA listing for northern abalone would not necessarily translate into more money for recovery. As discussed by M. Newman in her presentation, the budget for white abalone recovery (\$100K) is not large and some of it goes towards bringing the recovery group together while some goes towards small research projects. Currently, with the northern abalone listed as a Species of Concern, there is still an opportunity to apply for US Federal recovery funding through the Species of Concern Program. It was pointed out that US Federal listing has been helpful with species recovery when there are actionable items that a listing could provide a regulatory fix (under section 7), but this probably would not benefit northern abalone just as it has not greatly benefited white abalone. While there was a general feeling that listing in-and-of-itself would not necessarily result in recovery, it was noted that the ESA does not allow for considering the efficacy of a listing when determining whether a species is "threatened" or "endangered." It was agreed that the regulatory working group should continue discussion of regulatory options that could elevate the profile of northern abalone conservation, garner additional funding, and/or foster recovery efforts

4. Community Education and Outreach

It was pointed out that in Canada, Bamfield Marine Sciences Centre has a great community outreach program and that community outreach should be incorporated into all aspects of northern abalone recovery.

5. Funding

It was pointed out that we don't have to rely on US and Canadian Federal funding to recovery Abalone. The SeaDoc Society has already funded several northern abalone research and recovery projects in Washington totaling over \$100K and has put this meeting together. Options exist to continue to seek and use private funding and to solicit US Federal and State governments for abalone recovery funding.

POST MEETING ACTION ITEMS:

1. Send out meeting notes for input from participants, have participants send in areas of expertise to include into the meeting notes (expertise submitted in Appendix VI)
2. Convene a real or virtual meeting of the science group to discuss in-progress and needed scientific research; it would be good for field researchers to exchange approaches; October or November 2008 there is an abalone recovery implementation group meeting in Nanaimo or Vancouver, BC
3. Explore NOAA Species of Concern funding for 2008 as well as other funding options
4. Pursue opportunities for potential exchanges between different groups. Regarding dive opportunities, there is merit in seeking a solution that will solve the problem once, rather than having to do it over and over. This includes having the DSOs from different organizations talk about how to invite research divers from Canada; this should be done as soon as possible because it will not just entail a letter of reciprocity between groups
5. Come up with catchy acronym and title for group

**Co-Chairs were elected: Don Rothaus (from the US) and Laurie Convey (from Canada).
Chairs for each of the five working subcommittees were also elected.**

Appendix I: People Attending Workshop

1. Bauma, Josh (UW) boumaj@u.washington.edu or jubauma@yahoo.com (206) 498-4018
2. Buffum, Stephanie (Friends of the San Juans) Stephanie@sanjuans.org (360) 378-2319
3. Convey, Laurie (DFO), ConveyL@pac.dfo-mpo.gc.ca (250) 756-7163
4. Davis, Gary (National Park Service) Gary_Davis@nps.gov (805) 658-5707
5. DeFreitas, Bart (Haida Fisheries Program) bart@island.net (250) 626-3302
6. Demsky, Art (DFO enforcement) demskyA@pac.dfo-mpo.gc.ca (604) 607-4168
7. Fritzburg, Alan (Interested citizen), arfritz@comcast.net
8. Gallant, Nicole (DFO enforcement) gallantn@pac.dfo-mpo.gc.ca (604) 607-4169
9. Gaydos, Joe (SeaDoc, UC Davis) jkgaydos@ucdavis.edu (360) 376-3910
10. Harding, Joel (Kitasoo abalone stewardship project) joelharding@telus.net (604) 230-4145
11. Holmes, Heather (Pacific Rim National Park Reserve heather.holmes@pc.gc.ca (250) 726-7165 ext 239
12. Jubinville, Brian (DFO enforcement) jubinvilleb@pac.dfo-mpo.gc.ca (250) 754-0221
13. Kirstin Holsman (People for Puget Sound) kholsman@pugetsound.org (206) 382-7007
14. Lessard, Joanne (DFO) lessardjo@pac.dfo-mpo.gc.ca (250) 729-8364
15. Newman, Melissa – NOAA Fisheries Melissa.Neuman@noaa.gov (562) 980-4114
16. Nichols, Janna (REEF, WSA) – nwscubamom@comcast.net 360-798-6414
17. Peabody, Betsy (PS Restoration Fund) betsy@restorationfund.org (206) 780-6947
18. Racine, Michael (President, Washington Scuba Alliance) mikera@centurytel.net
19. Rogers-Bennett, Laura (UC Davis) rogersbennett@ucdavis.edu (707) 875-2035
20. Rothaus, Don (WDFW) rothadpr@dfw.wa.gov (425) 379-2315
21. Rumsey, Scott (NOAA/NMFS) Scott.Rumsey@noaa.gov (503) 872-2791
22. Stoltz, Anne (SeaDoc Society) awstoltz@ucdavis.edu (206) 281-9987
23. Straus, Kristi (UW) kmstraus@u.washington.edu (206) 616-6341
24. Tomascik, Tomas (Parks Canada) tomas.tomascik@pc.gc.ca (604) 666-1182
25. Withler, Ruth (DFO, PBS, Nanaimo) WithlerR@pac.dfo-mpo.gc.ca
26. Whyte, Guy (Bamfield Marine Station) guywhyte@telus.net (250) 709-9976

Appendix II: N. abalone presentations given during the GBPS Conference Session, Moderator: Don Rothaus

- Josh Bauma (UW) – Early life history dynamics of the pinto abalone (*Haliotis kamtschatkana*) in the San Juan archipelago, Washington state
- Kerry Naish (UW) – Evidence for a cryptic form of abalone in Washington State, and impact on the census size of populations of pinto abalone in the region
- Laura Rogers-Bennet (UC Davis) – Northern abalone and engineering species in the San Juan Islands: Implications for restoration strategies
- Don Rothaus (WDFW) – Changes in Abundance and Size of Pinto Abalone (*Haliotis kamtschatkana*) in the San Juan Archipelago (1979 to 2006)
- Scott Rumsey – (NOAA/NMFS) – Federal protection for northern abalone in the USA: comparing and contrasting the process and potential outcomes of Species of Concern versus ESA listings
- Thomas Tomascik (Parks Canada) – Wild brood-stock aggregations as a recovery tool for the Northern abalone (*Haliotis kamtschatkana*) in the Pacific Rim National Park Reserve of Canada, British Columbia.
- Guy Whyte (Pacific Trident Fishing) – Three Approaches to Out-planting Hatchery-reared Pinto Abalone (*Haliotis kamtschatkana*) British Columbia, Canada

Appendix III: People invited, but unable to attend

Allen, Harriet (WDFW) allenhla@dfw.wa.gov
 Campbell, Alan (DFO, PBS, Nanaimo) campbella@dfo-mpo.gc.ca
 Fyfe, David (NWIFC) dfyfe@nwifc.org
 Gage, Tamara tgage@pgst.nsn.us
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 Karpov, Kon (DFO, PBS, Nanaimo) kkarpov@mcn.org
 Kushner, Dave (NPS) David_Kushner@nps.gov
 Miller, Kristi (DFO, PBS, Namaimo) millerk@am.pbs.dfo.ca
 Naish, Kerry (UW) knaish@u.washington.edu
 Norse, Elliot (MCBI) elliott@mcbi.org
 Pearce, Chris (DFO, PBS, Nanaimo) PearceC@pac.dfo-mpo.gc.ca
 Renfrew, Dawn (Bamfield Marine Station) bhcap@island.net
 Sloan, Norm (Parks Canada) Norm.Sloan@pc.gc.ca
 Swanson, Willie (UW) wswanson@gs.washington.edu
 Taniguchi, Ian, (CDFG) ITaniguchi@dfg.ca.gov
 Walker, Scott, (AK DFG) scott_walker@fishgame.state.ak.us
 Watson, Jane (Malaspina Univ) watsonj@MALA.BC.CA

Appendix IV: Additional People who should be invited to participate

Joth Davis – Taylor Shellfish
 Phil Greene – The Nature Conservancy
 Glenn VanBlairicom – U. of WA
 Carolyn Friedman – U. of WA
 Sabine Jessen (CPAWS Vancouver)
 Michele Paterson (WWF Canada, Vancouver)
 Mike McHugh – Tulalip tribes, WA
 Doug Morrow – Jamestown S’Klallum
 Other Tribes with U & A’s in the historic range of N. abalone in WA
 Representatives from Oregon, Alaska, and possibly Mexico

Appendix V: Terms of reference for a transboundary abalone recovery group

Introduction

The northern or pinto abalone (*Haliotis kamtschatkana kamtschatkana*) range from northern Alaska to central California in patchy distributions on exposed and semi-exposed areas from low intertidal to subtidal depths. Most abalone off the coast of BC and WA are found at depths shallower than 10m. The threaded abalone, *H. k. assimilis*, is a sub-species that is distributed further south into Baja California. Genetically, it may not be possible to differentiate between the two subspecies.

The northern abalone is particularly vulnerable to over-exploitation due to its patchy distribution, short larval period, slow growth, long life and low or sporadic recruitment. Mature individuals also tend to accumulate in shallow water where they are easy to access and harvest. Northern abalone fisheries off British Columbia were closed to all users in 1990. The last commercial fishery for northern abalone was in Alaska in 1995. Alaska still has a skin-diving (no surface air supply) recreational fishery where the daily and possession limits are 5 abalone; a license is required. Washington and Oregon never had commercial fisheries for northern abalone and Washington state closed its recreational abalone fishery in 1994. Currently, Oregon has a very limited recreational fishery for abalone: the catch limit is 5 abalone/year and the minimum size is 8in (200mm) which effectively precludes northern abalone as the largest shell length of northern abalone ever recorded was 165mm (add reference). Oregon does maintain a small fishery for flat abalone (*H. wallalensis*). California closed all commercial abalone fisheries in 1997; northern abalone were not sufficiently abundant in California to have supported a fishery. A skin-diving recreational fishery for red abalone (*H. rufescens*) north of San Francisco is the only remaining abalone fishery in California. Northern abalone were not sufficiently abundant in California to support a fishery.

In Canada, northern abalone was designated as *threatened*, meaning that the species is likely to become endangered if limiting factors are not reversed, by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) in 1999 and is now listed as *threatened* in Schedule 1 of the Species at Risk Act (2003). Northern abalone was designated as a species of concern in the US (2004) and a Candidate Species in WA State (1998).

General objective

To co-ordinate recovery efforts and exchange information on abalone on the west coast of north America. The initial focus species will be northern abalone, *Haliotis kamtschatkana kamtschatkana*, as this species is declining throughout most, if not all, of its range.

Specific objectives or Working Sub-committees:

1. Research and recovery: including basic and applied research, genetics, survey methodology, juvenile and larvae outplanting, artificial habitats modules, etc. Interested: K. Holsman, D. Rothaus, K. Strauss, J. Bouma, B. Defreitas, T. Tomascik, B. Peabody, G. Whyte, L. Rogers-Bennett, J. Harding, **J. Lessard (LEAD)**, R. Withler, H. Holmes, J. Gaydos. (Convening)

2. Aquaculture: hatchery techniques: Interested: J. Bouma, **J. Davis (will ask to LEAD)**, G. Whyte, K. Strauss

3. Enforcement: including volunteer surveillance (coast watch) to report illegal harvest; Interested: **A. Demsky (LEAD)**, S. Buffum, B. Jubinville, L. Convey, S. Rumsey (NW), N. Gallant, P. Greene, R. Withler, M. Newman (SW)

4. Community outreach and education: Interested: J. Nichols (use of recreational SCUBA divers), S. Buffum, K. Holsman, **B. Peabody (LEAD)**, T. Tomascik, A. Stoltz, S. Rumsey, L. Convey, P. Greene, A. Fritzburg, M. Racine

5. Regulatory (ESA, CITES listings etc): Interested: H. Trimm, A. Trainer, **S. Rumsey (LEAD)**, M. Racine, A. Demsky, M. Newman, L. Convey,

Membership

Working group members shall have expertise in relevant areas (i.e. their knowledge of northern abalone biology and habitats, recovery of listed species, genetics, animal health, resource management or ecological interactions of northern abalone with their environment). The working group may invite experts to meetings or strike subcommittees as required. The working group will also select two co-chairs (US and Canada) from amongst its members.

Mode of operation

WG members will contribute their knowledge and expertise to the work of the working group. Members will identify when recovery actions may result in conflicts with their agencies' or organizations' legislation, policy, procedures or mandate but shall *not* represent nor act as an active promoter of their respective agency or organization views, concerns and desires. The WG will consult with individuals and groups who have knowledge of northern abalone and expertise related to its recovery, or whose activities have the potential to affect survival and recovery of the species.

The WG will consider options for promoting recovery of northern abalone and will assess to the extent possible the biological, ecological, economic and social consequences of the various options considered.

The WG will keep minutes of meetings and will provide copies of all documentation produced (minutes, analyses, contract reports, etc.) to all its members. The WG co-chairs will be responsible for completion and distribution of meeting minutes.

Decision-making will be by consensus as defined by an agreement that all can abide by.

Members may not agree with every aspect, but taken as a whole, a decision based on consensus satisfies the major interests of the parties.

Time commitment

WG members will contribute by attending meetings and responding to email request by WG members as part of agreed action items. It is understood that time commitment will differ between WG member depending on the actions required. It is also understood that time spent by a member will benefit this member, and by extension the member's parent agency, as well as the WG at large by increasing communication, efficiency, and the identification of potentially sharable resources.

Appendix VI: Specific Expertise
(To be expanded as people continue to submit their expertise)

Convey, Laurie (DFO), ConveyL@pac.dfo-mpo.gc.ca (250) 756-7163

Area of expertise/experience:

resource management, recovery of listed species and Species at Risk Act (SARA), abalone recovery strategy (Canada), abalone recovery team and its recovery implementation group (Canada)

DeFreitas, Bart (Haida Fisheries Program) bart@island.net (250) 626-3302

Area of expertise/experience:

development of community based northern abalone restoration plan that includes applied research (population survey & monitoring techniques, mature abalone density manipulations, estimating juvenile recruitment in artificial habitats); citizen coast watch program, school curriculum development and delivery, community outreach.

Harding, Joel (Kitasoo abalone stewardship project) joelharding@telus.net (604) 230-4145

Area of expertise/experience:

Abalone recovery research and implementation: dive research, population monitoring, artificial habitat and tag recapture studies, scientific training and community capacity development.

Rumsey, Scott (NOAA/NMFS) Scott.Rumsey@noaa.gov (503) 872-2791

Area of expertise/experience:

U.S. Endangered Species Act and Species of Concern designation and management