

TO: Lynne Barre, NMFS Office of Protected Resources

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FROM: Pete Schroeder, Marine Mammal Research Associates

SUBJECT: 2011 Health Assessment, A73-Springer

On May 24, 2002, the National Marine Fisheries Service (NMFS) in cooperation with Fisheries and Oceans - Canada announced its intention to intervene and rescue a lone juvenile killer whale in the Central Puget Sound region of Washington State. The efforts brought together an unprecedented collaboration involving the Vancouver Aquarium, numerous advocacy groups and private industry in Washington State and British Columbia. The two year old whale, identified as A73, or “Springer,” of the northern resident population was separated from her natal pod and found living in Puget Sound, several hundred kilometers from her home range. Based on observations and tests it was determined that the whale was underweight, ketotic and suffering from a dermatological disease of unknown origin. In addition, the whale frequently interacted with vessels and people. In response to concerns for the health and safety for her and for boaters using Puget Sound, the 525 kilogram animal was captured on June 13, 2002, a short distance from a floating net pen and held for comprehensive health assessments, treatment and rehabilitation in preparation for reintroduction to her home range. After one month in rehabilitation the whale was transported to Hanson Island, British Columbia, and released back to her pod. She has been seen every year, most recently in 2010, thriving in her wild habitat. (Prescott Grant Program Report, Emergency Funds, 2001-2010)

To facilitate A73’s biennial health assessment, 2011, I contacted individuals that have been involved with her since 2002. John Ford and Graeme Ellis, Fisheries Canada, emailed on August 10, 2011: John said, “She’s been seen a few times this year, most recently on Jul 17, off Port Renfrew, SW Vancouver Island, travelling with the A11 matriline, That put her only about 60 nm from Sequim! From the photos that Brian Gisborne took, she’s looking pretty good.” Graeme, said, “I have not seen her myself this year, but have seen numerous photos by others so know she is alive and well. The most recent sighting I know of was actually off the west entrance to Juan de Fuca Strait where she was traveling with a large group of A clan animals. She seems to be fitting in very well.”

Bill Mackay, Mackay Whale Watching, Port McNeill, BC, emailed on August 11: “We saw Springer today near Cracroft Point, behaving like a normal killer whale – in this case, sleeping with her pod. We were on the wrong side of the pod for photo ID purposes, but there’s always tomorrow.” She was photographed August 12, by Ron Ptolemy, Mackay Whale Watching, Figure 1



Figure 1

A73 photographed by Ron Ptolemy, August 14, two miles west of Malcom point, Figure 2



Figure 2

August 16, Paul Spong emailed: “ Thought you would like to know that Springer is back in town! She came in late on the 9th, but it was a couple of days before we saw her for sure. Then she left for a few days & returned late last night. Not sure if she will stick around, but there's a bit of a crowd of orcas here just now, so she might.” Spong sent this image by Leah Robinson, from Cracroft Point platform, Figure 3.



Figure 3

August 16 was a bright sunny day, calm waters and many animals. During the five hours aboard Bill Mackay's state of the art whale watching vessel, the Niad Explorer, more than 50 orcas were observed, as well as 4 humpback whales, a minke whale, harbor seals, northern sea lions, eagles and several species of marine birds. A73 was in the area of the Niad for a total of more than one hour, in the company of 5 other A Pod orcas, Figure 3. I was able to take several photographs, the most clear of which is Figure 4. This image was confirmed as A73 by Mackay, and demonstrates, when compared to Figures 1, 2 and 3, the importance of good photographic equipment, good lighting, persistence and a bit of luck.



Pete Schroeder, Figure 4

I observed A73 at many angles and distances and can say, with confidence, that conclusions reached following our 2009 Health Evaluation (Schroeder et al., 2009, www.jpsmmra@olypen.com) remain valid:

“The rehabilitation and translocation of A73 during June 2002, remains a unique event becoming a model for interdisciplinary management of an abandoned, juvenile orca that has a chance for a healthy and normal life in its native habitat.

- A73 continues to be a normal orca in her natural environment, usually appearing in the Blackfish Sound, Johnstone Strait areas from late June to early September.
- She has returned to her native waters eight consecutive years following her translocation. (A73 was also observed during the summer of 2010, (Bill Mackay, pers. comm.)
- She is feeding, growing, and developing normal social relationships with her cohorts.
- It is of great interest and importance to continue monitoring this unique animal, a member of the endangered Northern Resident Killer Whale Population, adding to knowledge of the species, orca pod/clan dynamics, and to give credibility to similar rescue efforts in the future, should they become necessary.
- The 2007 oil spill exposure and subsequent changes in A73's critical habitat provide strong incentives to continue long term longitudinal monitoring of this special orca. Clean up of the 2007 oil spill has been completed by DFO Canada.

- Long term monitoring is critical to track her “ketone” breath, especially since she was exposed to the 2007 oil spill.

An objective way to compare her size to others in her age class should be explored, adding knowledge to monitoring and evaluation of her reproductive history. A73 may have reached sexual maturity, and may breed within the next five years.”

Based on A73’s age and condition in 2011, she may be approaching reproductive maturity. The youngest female orca seen with a calf was 11 years old, but in most cases, female orcas give birth for the first time at 14 or 15 years (Ford, et al. 2000). The *Handbook of Marine Mammal Medicine*, 2001, lists orca sexual maturity at 5.8-12 years. *The Bottlenose Dolphin*, 1990, reports the bottlenose dolphin reaches sexual maturity at 5-7 years of age and reproductive maturity between 7-10 years of age.

It’s reasonable to say A73 is sexually mature, and close to reproductive maturity. She could be pregnant, and if she is, she could calve before next summer. Or, she could breed this fall or winter (presumed age of 11 years) as she gives all indications of living a healthy, normal life since her 2002 translocation. It’s most likely that she will calve sometime within the next five years.

A skin condition present at the time of her rescue, June 13, 2002, figure 5, may have had some residual physical effects.



Pete Schroeder

Figure 5

When observed from a vessel, A73’s skin looks much like that of her cohorts, as in Figure 3, where she is seen following A11. However when photographs, Figures 1 and 2, are enlarged, her skin appears to be less smooth than normal, in some areas. Figure 1 shows a “blotchy” look caudal of the dorsal fin, similar to that in Figure 5. Also, ventral to the middle of the base of the dorsal fin, Figure 2, a circular area looks somewhat depressed. This type of depression may or may not be obvious on other areas on her body, but many of these old, healed, lesions may cause her to have to compensate to make up for a less than normal transition of laminar flow to turbulent flow of water over her body. This possibility may be a positive for her overall health and welfare. More energy used to compensate for this condition may condition her better for survival, and she is a survivor.

This “less than perfect” skin, not noted before, may be more obvious in the 2011 photographs because of unusually sunny weather during the week they were taken. The conditions seen in the photographs were not seen from the vessel, even though she was observed often and clearly.

August 17, several A-Clan and G-Clan orcas were observed and word was received that A73 was headed east, to near Nodales, BC, Canada.

The range of A73 sightings this summer, from the mouth of the Strait of Juan de Fuca July 17, presumably around the northwest end of Vancouver Island to Johnstone Strait, August 9, and east to Nodales, BC, August 17, is of interest. If A-Clan northern resident population killer whales transit that route on a regular or irregular basis, one could speculate that in January of 2002, a curious, juvenile northern resident orca could have wandered into Puget Sound, alone or with some of her cohorts, became distracted, and was inadvertently left behind as the others continued north or south.

A73/Springer’s rescue, 6 months later, represents the first time that a wild orca whale has been collected, rehabilitated, medically monitored, and translocated back to its home range, and released. This was the most ambitious animal rescue ever mounted on the Pacific Coast (Francis and Hewlett, 2007).

The findings of this follow-up Health Assessment confirm the continued success of that rescue.

Great thanks go to Bill and Donna Mackay of Mackay Whale Watching. Their enthusiasm and cooperation over the last nine years, and this year in particular, have been essential in making this report possible.

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