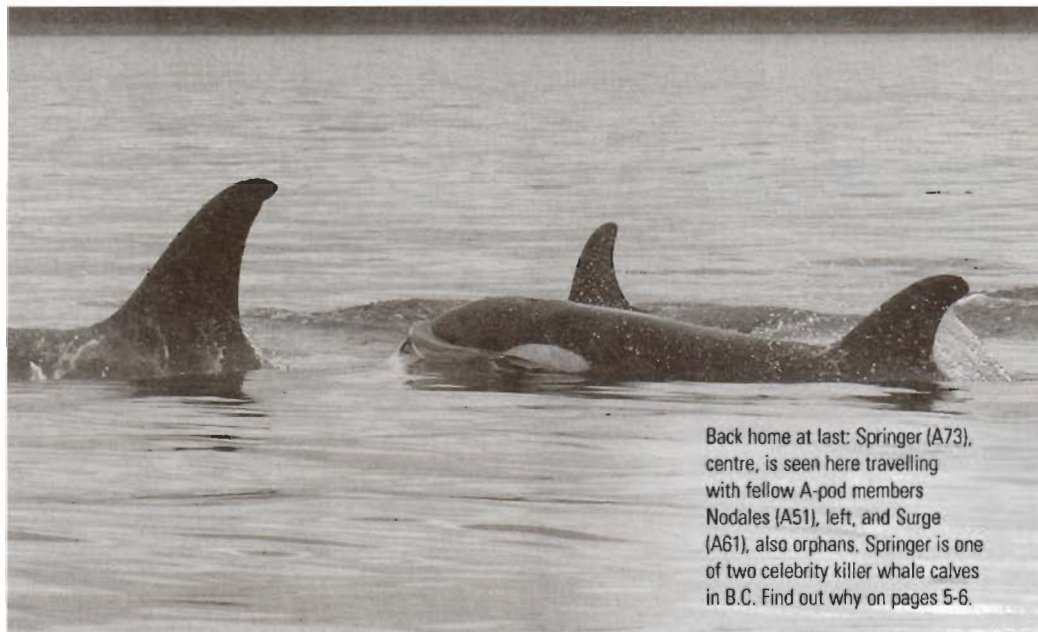


THE Blackfish Sounder

NEWSLETTER OF THE BRITISH COLUMBIA WILD KILLER WHALE ADOPTION PROGRAM



Back home at last: Springer (A73), centre, is seen here travelling with fellow A-pod members Nodales (A51), left, and Surge (A61), also orphans. Springer is one of two celebrity killer whale calves in B.C. Find out why on pages 5-6.

LANCE BARRETT/UNIVERSITY PHOTO

An amazing year

Welcome to the 2002 edition of *The Blackfish Sounder*—and the 10th anniversary of our adoption program. And what a year it's been. The adoption program's founder, Dr. John Ford, left the Vancouver Aquarium Marine Science Centre last summer to head marine mammal research at Fisheries and Oceans Canada's Pacific Biological Station (PBS) in Nanaimo, B.C. John is known worldwide for his extensive research on the behaviour, population dynamics and conservation of wild killer whales. He'll continue that work at PBS.

My wife, Kathy Heise, and I met John in 1985 when we were working as lighthouse keepers. We volunteered to assist John and his colleagues, Graeme Ellis and the late Michael Bigg, in their ongoing killer whale study. Over the years, Kathy and I became more and more fascinated by marine mammals. We eventually left the lighthouse to do graduate degrees. John co-supervised my master's and PhD projects on killer whale echolocation and genetics, respectively.

He also co-supervised Kathy's master's project on Pacific white-sided dolphins.

It was a tremendous honour to be offered John's former position. We share an old-fashioned philosophy about biology that seems to be coming back into vogue—that a solid grounding in natural history is key to understanding higher biological processes. He and I will continue to work together closely. John will remain an active participant in the adoption program, and we hope to feature his continuing research in *The Blackfish Sounder* for years to come.

On the killer whale front, this past year has been truly remarkable. A transient killer whale that live-stranded in January was successfully returned to the sea—a first for North America. And in a story that has captivated millions around the world, an orphaned and lost killer whale calf has been reintroduced back into her home waters. Springer (A73), is one of two young resident killer whale calves who became separated from their pods last year—something we've never seen before.

Continued page two...

Visit our new and improved Website!
www.killerwhale.org

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KELLY BRADY/BLAIR PHOTO

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The B.C. Wild Killer Whale Adoption Program, hosted by the Vancouver Aquarium Marine Science Centre, is an ongoing research and conservation effort for the protection of wild killer whales and their habitat.



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Website

We have recently re-developed our Website at www.killerwhale.org. On it you can learn more about killer whales in B.C. and around the world. The new site has some things that will be familiar to those who have visited it often in the past, but there's a lot of new information and fantastic photos. It's definitely worth checking out. For those budding young artists out there, send in your artwork and we may post it on our new Kids Page!

Southern residents added to endangered list

B.C.'s southern resident killer whales have been classified as endangered by a national committee of scientists from government, universities, museums and conservation groups.

The announcement was made last November by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC), and comes as no surprise to those who have watched the southern resident population drop steadily from a high of 99 in 1995 to just 79 in 2001.

Endangered status is defined as "facing imminent extirpation or extinction."

At present, COSEWIC listings don't mean much except to raise awareness that a species or population is in trouble. But once a federal Species at Risk Act is passed, it's expected that a recovery plan will be required within a short period of time for each listed species.

The southern resident population of killer whales—made up of pods J, K and L—is most often seen in the summer months off southern Vancouver Island and northern Washington. In the winter of 2000-01 six whales disappeared, including three adult males. The population now has only four breeding age males.

The cause of the decline is still a mystery. The main suspects are declining food resources (especially salmon), pollution, boat disturbance, or a combination of these factors.

Northern residents in trouble too?

Although B.C.'s northern residents are in better shape than their southern cousins, they have also begun a worrisome downward trend.

Their numbers have dropped by 8.7 per cent over the last five years, from an estimated peak of 219 in 1997 to 200 in 2001. Doing a precise annual census on these whales is difficult because not every group is seen each year. Even so, a decline is evident.

"It may be that whatever happened to southern residents is now happening to the northern residents," says Dr. John Ford, marine mammal scientist for Fisheries and Oceans Canada in Nanaimo. "Hopefully, it's not the case and it's just a natural fluctuation. That's still possible, but unlikely."

Last November, COSEWIC listed B.C.'s northern resident population as threatened, which means it "is likely to become endangered if limiting factors are not reversed." Also on the threatened list is B.C.'s transient population of killer whales.

Although the COSEWIC listings currently lack any legislative teeth, they are a reminder that B.C.'s killer whales are vulnerable and need our help.

"In the next fiscal year we'll be developing a recovery plan for all B.C. killer whales," says Ford. "This plan will review what we know to date, and then present specific ideas for mitigating whatever threats are at work here."



Whale Attack

This dramatic photo of a transient killer whale attacking a gray whale calf was taken off California. The female killer whale is lunging onto the head of the calf to prevent it from surfacing to breathe. Despite a valiant struggle that lasted for hours, the calf was killed. The full sequence of this attack was captured by a BBC film crew as part of a series called *The Blue Planet: Sea of Life*. Watch for reruns on the Discovery Channel.

An amazing year, continued

Their stories—which were still unfolding as we went to press—are featured inside this issue.

Also inside are stories on the B.C. Cetacean Sightings Network, which has grown into a province-wide program for marine mammal education and data collection, and a new killer whale study which my colleague Craig Matkin and I have started in a remote part of Alaska. We hope you find these and other stories interesting, and thank you for your continued support.

*Dr. Lance Barrett-Lennard
Senior Marine Mammal Research Scientist
Vancouver Aquarium Marine Science Centre*

Rescuers free stranded whale

How do you coax a reluctant five-tonne killer whale out of a shallow bay where he will surely die?

With difficulty. But as rescuers found out early this year, human ingenuity and persistence can sometimes win the day.

On Jan. 2 an adult male killer whale was spotted stranded but still alive at Dungeness Spit, a narrow hook of land that juts out into the Strait of Juan de Fuca just east of Port Angeles, Washington. The body of another whale, an adult female, had washed up onshore about 2.5 km away.

Rescuers converged on the scene and made several attempts to harness the male and tow him east out the bay's S-shaped entrance to open water. Each time, he broke loose and re-stranded on the bay's west side. "We weren't sure whether he was distraught and confused and just wanted to stay where he'd last seen the female, or wanted to head west because that's the way he came from," says Dr. Lance Barrett-Lennard, marine mammal scientist with the Vancouver Aquarium.

That night, rescuers took turns monitoring the beached whale's condition. Although it was cold, there was a danger he would over-heat. "We kept pouring water on him and draping wet towels on his body," says Barrett-Lennard. At one point, a volunteer raced to an all-night grocery store for a tub of zinc-oxide to smear on the whale's chapped blowhole.

In the morning the team plotted their next move. They decided to hook the rope sling on differently and attach boat fenders to his tail to stop him from thrashing free while being towed. The whale was docile and lethargic, and rescuers began to worry that time was running out.

Early that afternoon the whale was pulled off the beach and towed slowly out the bay. He was so weak he kept flopping onto his side after each breath. But as they neared the bay entrance the whale started to beat slowly with his tail, and to stay upright. The further they went, the stronger he got. At about 15 km out into the strait, the ropes were pulled off and the whale was free at last.

He swam slowly west with a small time-depth recorder (TDR) attached by suction cup to his back. Two weeks later the device was found on a beach on the west side of Washington's Olympic Peninsula with about 35 hours of data. All indications are that the whale was in good shape and heading south.

That direction makes sense because the whale was later identified as CA 188, one of a group of "California" transients photographed only once before—off Oregon in 1996. He's probably not much more than 20 years-old. The large and much older dead female (see page 4) was CA 189, and possibly his mother. Tests have so far failed to reveal a cause of death.



CA188 is draped with wet towels.

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Free at last: CA188 heads out into the Strait of Juan de Fuca.

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Orca FM Update

You may be wondering what has happened to Orca FM. In 1998, the world's first all-killer whale radio station, CJKW, began broadcasting the clicks, whistles and calls of wild killer whales in Johnstone Strait, off northeastern Vancouver Island. The station is part of a project called Whale-Link, which helps researchers acoustically monitor the movements of killer whales throughout the year. Connected by a high speed data line to the Vancouver Aquarium Marine Science Centre, visitors could hear the underwater sounds of Johnstone Strait year-round and learn to appreciate just how noisy the underwater world really is. In 1999, the station went live on the Internet so that people around the world could tune in. But like all technology, glitches developed over time. Recently, maintenance challenges and the high cost of a data line made it necessary for the Aquarium to suspend the Orca FM feed. However, Orca FM is still on the air and can be heard by visitors to the Robson Bight area in Johnstone Strait at 88.5 on the FM dial. The WhaleLink project continues with the development of new technology to monitor and store killer whale vocalizations in many remote locations simultaneously. In the meantime, you can still catch the sounds of killer whales online between July and October thanks to our colleagues at OrcaLab, who have developed a network of hydrophones in and near Johnstone Strait. We encourage you to check out their Website at www.orca-live.net.

Toxic whale surprises scientists

The female killer whale that died near Dungeness Spit in January carried possibly the highest level of PCBs ever measured in a killer whale.

The transient whale tipped the scale at 1,000 ppm—so high that the testing equipment had to be recalibrated to get an accurate reading. The analysis was done at a National Marine Fisheries Service lab in the U.S. Canadian wildlife toxicologist Peter Ross is running a similar test.

"I'm always reluctant to attach emphasis to a sample size of one," says Ross, who usually analyses tissue from live animals. Dead, emaciated animals typically show higher levels of PCBs in their remaining fat. "However, this animal was in good shape so the level may be real," he says. The highest reading he has ever measured was 775 ppm from a male transient.

"This is yet another reminder of the persistence of these insidious chemicals and the need for more work to document their sources and movement through the marine environment."

Why the whale had such high PCB levels and what killed her remain a mystery.

Toxic shock

South coast food chain shows high levels of PCBs

The food chain in Washington state's Puget Sound is seven times more contaminated with PCBs than in B.C.'s Strait of Georgia, a study has found.

The transboundary study, which has implications for both resident and transient killer whales, is looking at the level of persistent pollutants in harbour seal pups and fish in the two water bodies. Of particular concern are polychlorinated biphenyls (PCBs), dioxins and furans, which are known to damage immune, hormonal and reproductive systems.

Heavy industry was the main source of PCBs in the local food chain, especially in Puget Sound. But resident killer whales eat mainly salmon coming in from the open ocean. Why are they so contaminated? Preliminary analysis of outgoing and incoming chinook salmon shows that they head out to sea with about one microgram of PCBs, but return with 190 micrograms.

"This tells us that the salmon are going off into the ocean and picking up various contaminants out there as they feed and grow," Ross says.

"Micrograms may not sound like much, but when you're a killer whale eating 100 kg of salmon a day for 50 to 80 years, it all adds up."

The fact that southern residents are more contaminated than northern residents makes sense, adds Ross, because they're probably supplementing their diet with non-salmonid fish from the contaminated

"food baskets" of Puget Sound and the Strait of Georgia.

What are PCBs?

PCBs are thick, fat-soluble oils that were used in the mid-20th century as industrial lubricants and in electrical transformers. They don't break down. Instead, they work their way up marine food chains, becoming more concentrated as they go. Top predators such as seals and killer whales end up with the biggest load.

When a killer whale eats PCB-laden fat—in the form of a salmon or a seal, for example—its body can't metabolize or excrete the PCBs. So the chemicals get stored in the blubber. Females pass some of the toxins on to their calves through their fatty milk. This is why males tend to carry the highest load.

The average male southern resident killer whale carries 146 ppm of PCBs. Male transients top the list at an average 251 ppm. Overall, B.C. killer whales are the most contaminated marine mammals in the world.



Dead transient CA189 - very high PCB count

COURTESY: NATIONAL MARINE FISHERIES SERVICE

The study shows that the average Puget Sound seal pup contains PCB levels of 17 parts per million (ppm). This is above the level known to cause adverse health effects in seals, says Dr. Peter Ross, a wildlife toxicologist at the Institute of Ocean Sciences near Victoria.

Strait of Georgia seal pups carry an average 2.5 ppm of PCBs. But PCBs accumulate

throughout a marine mammal's life. Ross estimates that the average 15-year-old adult male harbour seal in the Strait of Georgia carries a PCB load of 35 ppm.

PCBs were banned in the 1970s by many

countries, including Canada and the U.S., but are still present in soils, streams and rivers and will be for decades to come. They're also still used in other parts of the world, such as Asia, and are known to drift thousands of kilometres across the Pacific.

Overall, B.C. killer whales are the most contaminated marine mammals in the world.

All by themselves

Two wayward killer whale calves puzzle scientists, enchant us all

This winter two young resident killer whales were discovered by themselves—in different locations—totally separated from their family groups.

Eighteen-month-old Springer (A73), a female, took up residence off an island in Washington's Puget Sound. And two-and-a-half year-old L98, a male, is living in a remote inlet off the west coast of Vancouver Island.

In human terms, these two whales are toddlers. Their strange situations go against everything we've learned about resident killer whales, which have social bonds so strong that calves stay with their mother and family group throughout their lives. Young calves rely on their mothers and older relatives to teach them how to hunt, socialize and find their way around the ocean.

A73: celebrity orphan

Until mid-June, the prospects for Springer, a northern resident, didn't look good. She was nowhere near the range of her family group and was surrounded by busy boat traffic, heavy industry and a questionable food supply. Her mother, Suttlej (A45), is missing and presumed dead. Her closest living relatives are grandmother Kelsey (A24) aunt Schooner (A64) and Magin (A71).

Springer was last seen with her mother in September 2000. By last summer, Suttlej was missing and Springer travelled for a while with some whales from G-pod off northeastern Vancouver Island. But this January she turned up in Puget Sound, alone and in poor health.

Springer's predicament sparked months of public debate on both sides of the Canada-U.S. border over when, how and even if an intervention should take place. Meanwhile, her health was deteriorating and she was becoming dangerously attracted to boats. Finally, on June 13, a capture team led by the U.S. National Marine Fisheries Service (NMFS) scooped Springer out of the water and placed her in a nearby pen for rehabilitation.

Over the following weeks, veterinarians did a battery of medical tests on Springer, treated her for worms, and watched her fatten up on a diet of live salmon. A month later she was pronounced healthy and ready to return to Canada.

On July 13, Springer was transported by high-speed catamaran—donated for the occasion—650 km north to her home waters of

Johnstone Strait. The move was coordinated by the Vancouver Aquarium.

As soon as Springer was placed in her new pen she burst into life, spy-hopping, tail-slapping and breaching. "It's not very scientific to say this, but I think she knows she's home," grinned Dr. Lance Barrett-Lennard, the Aquarium's marine mammal scientist. He was among a team of researchers who would determine when Springer was released.

That moment came the next day when the A11 matriline—Springer's great aunt and cousins—stopped at the entrance to the bay where she was being held. The whales "talked" back and forth and Springer's excited vocalizations were so strong that "they practically blew our headphones off," says Barrett-Lennard. The A11s cautiously approached, some of them spy-hopping to get a better look. "You could sort of see question marks coming out of their heads," he jokes.

Handlers quickly attached three temporary suction-cup tracking devices onto Springer and guided her out of the pen to freedom. The calf, grasping a last-minute salmon in her mouth, bolted out of the bay. She paused briefly to play with a stick and some kelp and then mingled with the waiting whales. Then they went their separate ways.

As *The Blackfish Sounder* went to press, Springer had been seen with several whale families, but was still travelling alone some of the time. Researchers will continue to monitor her progress and assist boaters in avoiding her. It's hoped that she'll find a niche among her relatives, but life as a solitary whale would still offer a more secure future than she could have found in Puget Sound.

Continued page six...



Springer (A73)



L98

You're part of the Springer team

Thanks to you, our members, Springer's unprecedented journey home is already a success story, no matter what the outcome. Your support over the years has helped scientists learn more about B.C. killer whales than any other wild marine mammal in the world. The annual photo ID program, field observations of killer whale social structure, and extensive studies of the unique sounds made by each killer whale family told us who Springer was, where she was supposed to be, and which whales are her best chance for a family reunion.

Springer's rescue was an international, multi-organization effort involving scientists, veterinarians, animal care specialists and volunteers from both the U.S. and Canada. Under the authority of Fisheries and Oceans Canada, the Vancouver Aquarium was responsible for the care, handling and transport of Springer to her Canadian home waters at an estimated cost of \$800,000 CDN. If you would like to make a special donation to help defray those costs, contact the Aquarium at 1-800-663-0562 or go online to www.vanaqua.org.

"It's not very scientific to say this, but I think she knows she's home."

How many killer whales are there in Alaska?

Good question. And researchers are working on the answer.

Alaskan killer whale studies began in 1983, with much of the work centred in the Prince William Sound-Kenai Fjords area. Researcher Craig Matkin and colleagues have identified 360 resident-type killer whales in the region. Of these, about 200 are in well-known pods that are monitored year after year, similar to the ongoing studies in B.C.

Although Prince William Sound and B.C. resident killer whales live too far apart to mix on a regular basis, genetic analysis shows they're related. The two populations separated relatively recently, and some mingling of the gene pools may occur through common neighbours—the 80-plus resident whales of southeastern Alaska.

About 60 transients or probable transients have been identified in the Prince William Sound-Kenai Fjords area, although they're seen irregularly. These whales are very distinct genetically from B.C. and southeastern Alaska transients, which are known to travel together.

The big mystery is how many killer whales are west of Prince William Sound. To find out, Matkin and the Vancouver Aquarium's Dr. Lance Barrett-Lennard have begun a three-year study of killer whales from Resurrection Bay westward to the Aleutian Islands. The study will include photo-ID, acoustics and genetics work.

"We'll be trying to estimate the numbers of coastal killer whales all the way along the Alaska Peninsula, and distinguish between resident and transient-types," says Barrett-Lennard. "We think there are a lot of them up there, so we have our work cut out for us."

All by themselves, cont'd

L98: far from mom

The other wayward calf, L98, is a member of the endangered southern resident population, which spends much of the summer off southern Vancouver Island but occasionally wanders up and down the island's west coast. L98's mother, L67, is still alive.

L98 was first spotted alone in Nootka Sound last July, but his identity wasn't confirmed until November. He seems to be in good health, and Fisheries and Oceans Canada officials and local volunteers have been keeping an eye on him to make sure he stays that way.

It had been hoped that L98 would rejoin his pod this spring when they returned to southern Vancouver Island. However, L-pod has already returned without him. They didn't venture far enough into Nootka Inlet to find their missing calf.

For now, it's a wait-and-see situation, but L98's prospects seem reasonably good since he's in a pristine area with a sufficient food supply. The major concern is that he's becoming too friendly with boats. If you're boating in Nootka Sound this summer, please remember that encouraging the calf to approach increases the risk that he'll eventually be struck by a boat and injured. Treat him with the respect you would other wild animals, and keep your distance.



Miracle

B.C.'s first little Miracle

Springer and L98 aren't the first lost killer whale calves to win our hearts. In 1977 a wounded year-old female calf was discovered by a fisherman in the shallows of a bay just south of Campbell River on the east coast of Vancouver Island. She'd been shot and slashed by boat propellers, and was near death from starvation and infection. "Miracle," as she came to be known, was eventually taken to Sealand of the Pacific, an aquarium in Victoria, where she was nursed back to health. Back then, very little was known about killer whales, and no attempt was made to release Miracle back to the wild. She drowned at Sealand in 1981 while trying to escape through a hole in her pen. To this day, it's not known what pod she came from.

Behind the scenes

"It's a habit" says Alaskan killer whale researcher



Craig Matkin

Craig Matkin is a biologist with Alaska's North Gulf Oceanic Society (NGOS), which for the past 19 years has been documenting and monitoring killer whale populations in the state's coastal waters. Matkin and his colleagues work closely with B.C. scientists as part of a larger network of killer whale researchers up and down the coast.

Matkin started out as a fisheries biologist. That changed one day in 1976 when he was kayaking in a small lagoon in Prince William Sound and a group of killer whales approached. The whales went into what he now knows to be resting behaviour, and Matkin drifted among them until darkness forced him to leave. By then, he was smitten. "I was struck by this irrational need to know what was going on," he says.

Matkin took up commercial fishing and began taking photo IDs of killer whales on the side. After earning a master's degree in marine biology

from the University of Alaska, he and several other researchers formed the NGOs to conduct ecological studies on Alaska's north Gulf coast.

"The more questions that come up about killer whales, the more I want to know the answers,"



Alaskan killer whales

says Matkin, adding that it helps to be working with researchers who are "just as fanatical as I am." But mostly what drives him on are the whales themselves. "It's a habit. There's nothing quite like the familiarity of being out there with the same animals year after year, watching them develop into individuals."

Seen a whale lately?

We need your help to track whales along the B.C. coast.

The next time you're out on the water or gazing out to sea and you spot a whale, dolphin or porpoise, the B.C. Cetacean Sightings Network would like to hear about it. You'll be supplying vital information so that researchers can get a sense of how the various species are using the coast.

The data may help solve puzzles like where killer whales go in the winter, how many humpbacks are in B.C. waters and whether blue whales are finally making a comeback in the eastern North Pacific.

The network is a collaboration between the Vancouver Aquarium Marine Science Centre and Fisheries and Oceans Canada. It's funded by the Habitat Stewardship Program, an Environment Canada initiative designed to assist the recovery of species at risk.

Since it was created a year ago the network has been a huge success, says research assistant Michaela McDonald. She's busy entering information from more than 1,700 sightings into a database. "We got the early reports of the stray calves L98 and A73," she says. "That shows how well the system is working."

To report a sighting all you need to do is go online to www.wildwhales.org and download a form. On it are several questions, including where the animal was seen, description, estimated size and behaviour. Also, hundreds of logbooks have been sent to lightkeepers, the Coast Guard, eco-tour operators and anyone else who spends a lot of time on or near the water and is interested in helping out.

If you've seen something but you're not sure what, the Website features loads of information about whales on the B.C. coast. And if you think your community group or school would be interested in learning more, someone from the program can come and give a tailor-made presentation.

For more information, call (604) 659-3429 or e-mail sightings@vanaqua.org.

Population Update:

Here's an update on our adoption program whales:

Twelve-year-old **Blinkhorn** (A54) in the A30 matriline became a first-time mother in 2001 with the arrival of A75. If it survives its critical first year the calf will join our adoption program in 2003.

We have five youngsters that can now be added to the adoption pool. **Whisky** (D20), named after Whisky Cove on B.C.'s central coast, was actually born in 1999 but wasn't seen for the first time until 2000. Whisky's mom is **Hakai** (D12).

Stormy (A74), named after Stormy Point on B.C.'s central coast, is the fourth calf of **Simoom** (A34) in the A12 matriline. **Kestrel** (C24), named for Kestrel Rock on B.C.'s north coast, is



Top Notch (A5)

the firstborn of **Fifer** (C13). And **Seabreeze** (G66), named after Seabreeze Point on B.C.'s north coast, is the second calf of **Sharbau** (G31).

The fifth calf to be named is **Springer** (A73), after Springer Point in southern Johnstone Strait. Springer became a celebrity this past winter by straying alone into Puget Sound near Seattle, Washington. Springer's mother, **Sutlej** (A45), is missing and presumed dead. For more on Springer, see pages 5-6.



Stormy (A74)



Kestrel (C24)

We also say farewell to several whales who have gone missing over the last two years: **Top Notch** (A5), **Weynton** (C9), **Kwakshua** (D7), **Kitasu** (D14), **Harlequin** (G16), **Caamaño** (R6), **Lalakata** (R9) and **Laredo** (R15). And three transients who haven't been seen for many years—**Bajo** (T2A), **Yaku** (T10A) and **Bunsby** (T12B)—are also considered dead.

On the road again

Staff and volunteers from the B.C. Wild Killer Whale Adoption Program made the trek to Vancouver Island's northeast coast again in 2001 for the 2nd annual OrcaFest in Port McNeill. The festival, coordinated by the Port McNeill Chamber of Commerce, is held every August and includes a variety of activities such as a salmon barbeque, a slo-pitch tournament, whale-watching, a parade, touch tubs and a chowder cook-off (for more details see www.portmcneill.net). Our display featured research on wild killer whales as well as information on the B.C. Cetacean Sightings Network (see this page for details on this program).

February 6-10 marked the 41st Vancouver International Boat Show. Known as Western Canada's largest marine marketing event, the show was held at B.C. Place Stadium in downtown Vancouver. Thousands of people attended and the B.C. Wild Killer Whale Adoption Program, teaming up with the BC Cetacean Sightings Network, set up a display and promoted both programs. With the help of some fabulous volunteers, we talked to many enthusiastic sport and commercial fishers, recreational boaters and other members of the public who were eager to participate in our programs.

THANKS

Thank you to the following people who continue to lend their time and energy to the adoption program: **Graeme Ellis** and **John Ford** for their expertise and for organizing the ID photos; **Elwood Miles** for long hours in the dark room; the many contributors to the photo ID study that makes this program possible; all those who donated photos for this newsletter; **Stubbs Island**

Whale Watching, Mackay Whale Watching and **Pacific Northwest Expeditions** for their efforts in promoting the program; **Anne Canning, Nina Distefano, Lea-Ann Goltz, Rachel Griffin, Katriina Ives, Michelle Pangindian, Graeme Stevens** and **Adrian Tan** for their volunteer contributions. And a very special thank you to all whale adopters for continuing to make this program possible.

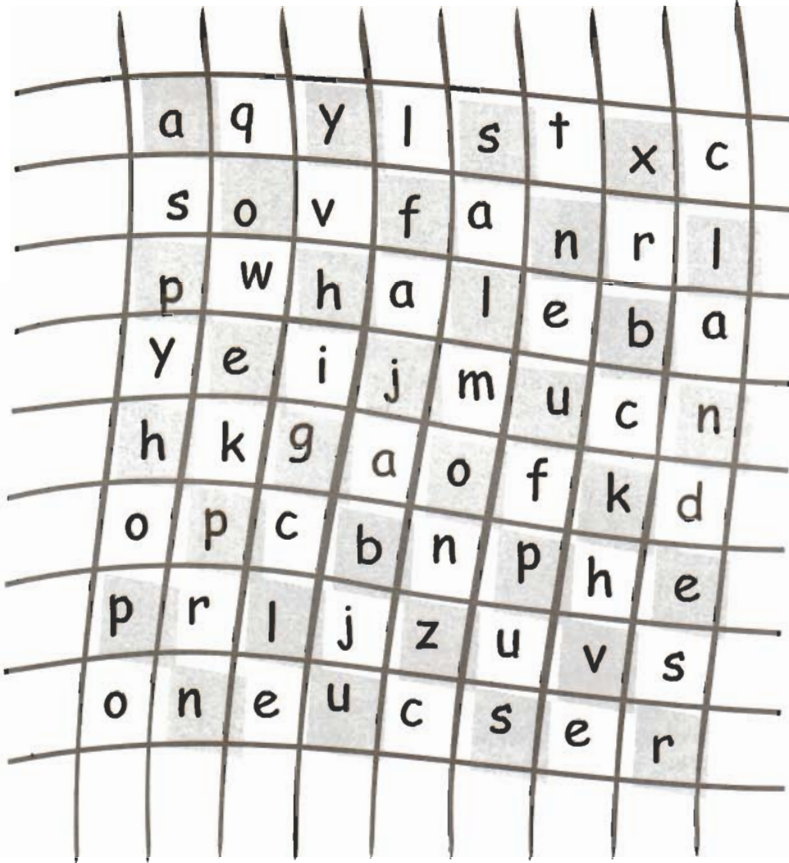
PODPOURI

Springer's (A73) maternal grandfather was Strider (A6), well-known to whalewatchers in Johnstone Strait. Strider died in 1999.

Kids Page

It's a whale of a word search! Can you find the following list of words in the puzzle below?

- salmon
- whale
- orca
- clan
- pcb
- rescue
- fluke
- spyhop



"I would like to save all whales. Can you please help me?"

These are the words used by seven-year-old Max Wilkins to encourage his classmates to help raise money for wild killer whale research. His Grade 2 class from Mulgrave School in West Vancouver collected enough pennies to adopt a whale through the B.C. Wild Killer Whale Adoption Program. This isn't the first time Max has motivated his class to do this. Last year, when he was in Grade 1, he and his classmates at Capilano Elementary School in North Vancouver, also raised money to adopt a whale. Max is part of a growing number of students in classrooms and schools around the world that are having bake sales, bottle drives and collecting pennies to do their part for the research and conservation of wild killer whales on the B.C. coast. There are too many to name here but we thank all of you for your efforts.



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 B.C. Wild Killer Whale
 Adoption Program,
 c/o Vancouver Aquarium
 Marine Science Centre,
 P.O. Box 3232, Vancouver,
 B.C., V6B 3X8
 Tel: (604) 659-3430
 Fax: (604) 659-3515
 e-mail: adoption@vanaqua.org
 website: www.killerwhale.org

Program coordinator
 Lance Barrett-Lennard
Program assistant
 Nancy Marcus
Editor and writer
 Valerie Shore
Design and layout:
 Leah Commons

Your Artwork

Thank you to all the talented young artists who contributed some great killer whale drawings. Sorry we can't show them all, but here's a sampling: (from left) **Shona MacKenzie (Scotland)** and **Nikki Harding (Australia)**.

