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PACIFIC SEABIRD GROUP

Dedicated to the Study and Conservation of Pacific Seabirds
and Their Environment

The Pacific Seabird Group (PSG) was formed in 1972 due to the need for better communication among Pacific seabird researchers. PSG provides a forum for the research activities of its members, promotes the conservation of seabirds, and informs members and the public of issues relating to Pacific Ocean seabirds and their environment. PSG holds annual meetings at which scientific papers and symposia are presented. The group's journals are *Pacific Seabirds* (formerly the PSG *Bulletin*), and *Marine Ornithology* (published jointly with the African Seabird Group, Australasian Seabird Group, Dutch Seabird Group, and The Seabird Group [United Kingdom]; www.marineornithology.org). Other publications include symposium volumes and technical reports. Conservation concerns include seabird/fisheries interactions, monitoring of seabird populations, seabird restoration following oil spills, establishment of seabird sanctuaries, and endangered species. Policy statements are issued on conservation issues of critical importance. PSG members include scientists, conservation professionals, and members of the public from both sides of the Pacific Ocean. It is hoped that seabird enthusiasts in other parts of the world also will join and participate in PSG. PSG is a member of the International Union for Conservation of Nature (IUCN), the Ornithological Council, and. the American Bird Conservancy. Annual dues for membership are $25 (individual and family); $15 (student, undergraduate and graduate); and $750 (Life Membership, payable in five $150 installments). Dues are payable to the Treasurer; see Membership/Order Form next to inside back cover for details and application.

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REPORT

Reports provide up-to-date information on current research and issues. They are not peer-reviewed and should not be cited without the author's permission.

STATUS OF THE BREEDING POPULATION OF BLACK-TAILED GULLS ON HONGDO ISLAND, KOREA.

Who-Seung Lee*, Young-Soo Kwon and **Jeong-Chil Yoo**

Black-tailed Gulls (*Larus crassirostris*) are one of the most abundant seabirds in Korea, Japan, China, and Russia. There are about 11 records for Alaska and another 9 or so for the rest of North America, including sightings as far south as Belize and as far east as Newfoundland, Canada (Lethaby and Bangma 1998). The gulls breed colonially on islands or rocky cliffs, and forage for food (e.g. fish, bait and fishermen's garbage) near breeding areas (Paek and Yoo 1996).

In Korea, islands known as major breeding colonies of Black-tailed Gulls are Dokdo, Hongdo, Nando, Baengnyeongdo, Chilsando, and Chilbaldo (Figure 1). The islands are designated as a natural monument for conservation in Korea. One of the colonies, Hongdo Island, is the largest breeding colony. Therefore much research on Black-tailed Gulls is carried out there.

Hongdo Island (34° 31' 87" N, 128° 43' 88" E) is located about 50.5 km from the mainland (Tongyeong city, Gyeongsangnam-do, Republic of Korea). The highest point of the island is about 115 m above sea level, and its area is 98,380 m^2. Cliffs with a slope of over 45° surround the coastline. The vegetation consists mainly of a sedge (*Carex boottiana*), which covers the whole island except the rocky cliffs. Like other *Larus* gulls, Black-tailed Gulls use the sedge as the major nesting material (Lee 2004). The island is additionally covered with a mixture of plant species, of which *Camellia japonica*, *Opuntia ficus-indica*, *Aster spathulifolius*, and *Taraxacum mongolicum* are the main components (Cultural Properties Administration 2003).

Black-tailed Gulls arrive on Hongdo Island in early spring (February or March). Breeding is initiated in early April and finishes in late August. Clutch size is 2-3, and breeding success is about 50%, according to our previous research (Kwon 1998, Lee 2004). In contrast with other islands, only one species, Black-tailed Gulls, breeds on Hongdo Island (Kwon 1998). For this reason, one of the major causes of egg and chick mortality is pecking by neighboring adults, al-

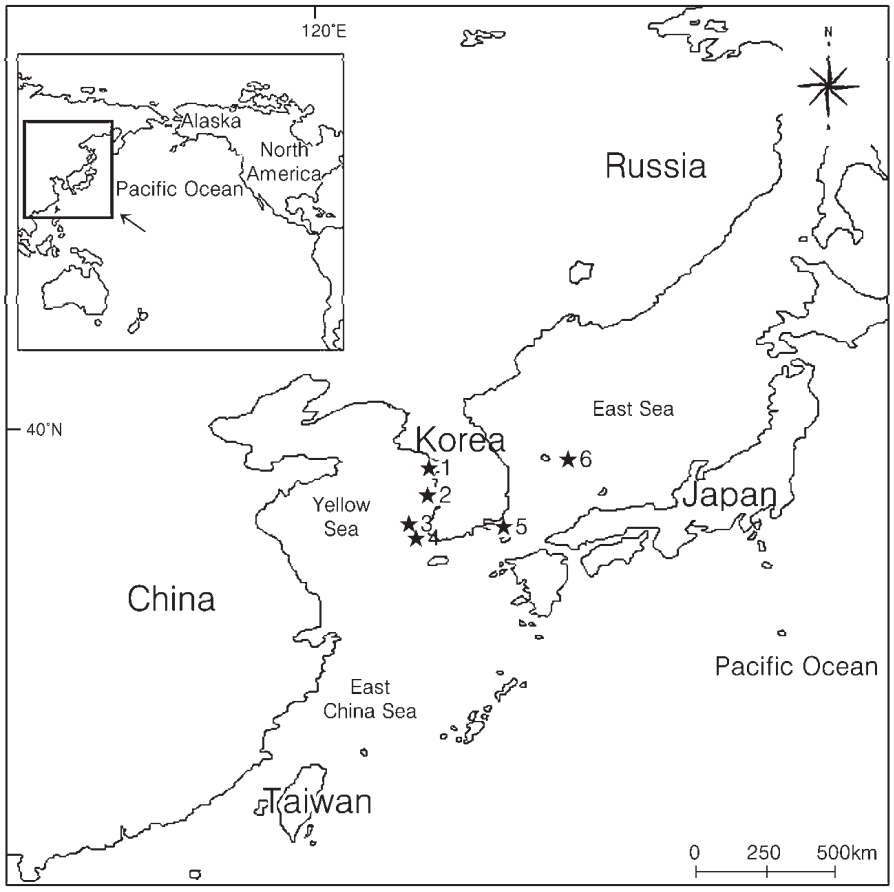

FIGURE 1. Map of major colonies of Black-tailed Gulls in Korea, 1: Baengyeongdo Island; 2: Nando Island; 3: Chilsando Island; 4: Chilabaldo Island; 5: Hongdo Island; 6: Dokdo Island.

TABLE 1. Nearest distance between neighbors and clutch size of Black-tailed Gulls on Hongdo Island, Korea in 1997, 2000, and 2003. Data are mean ± SE (n).

Year	Nearest distance between neighbors	Clutch size	Source
1997	114.35 ± 53.90 (39)	1.90 ± 0.46 (83)	Kwon (1998)
2002	88.92 ± 19.02 (130)	1.87 ± 0.55 (130)	This study
2003	87.35 ± 15.03 (128)	1.97 ± 0.59 (128)	This study

though one pair of Peregrine Falcons (*Falco peregrinus*) breeds at the same time (Lee 2004).

Breeding populations of Black-tailed Gulls on Hongdo Island have not been censused recently, but numbers of Black-tailed Gulls have apparently increased from about 10,000 pairs in 1995 (Peak and Yoo 1996). However, little is known about breeding ecology except for the initial state of the breeding (Yoo and Kwon 1997), breeding strategy (Kwon 2004), and habitat selection (Lee 2004). In this study, in order to analyze the status of breeding population, we compared the nearest distance between neighbors (i.e. density) in 2002-03 with data from 1997.

Our field work was carried out during the breeding seasons of 2002 and 2003. We selected 130 nest sites in 2002 and 128 in 2003, and checked breeding performance (e.g. clutch size, laying data, egg mass, hatching date, and chick size). After termination of laying, the nearest distance between neighbors was measured as the distance from the center of one nest to the center of the nearest nest. If the nest was not clearly evident, we measured the distance from stake to stake.

The nearest distance between neighbors on Black-tailed Gulls on Hongdo Island was shorter in 2002-2003 than in 1997 (1997: 114.35 ± 53.90; 2002: 88.92 ± 19.02; 2003: 87.35 ± 15.03). However, clutch size was not different among years (1997: 1.90 ± 0.46; 2002: 1.87 ± 0.55; 2003: 1.97 ± 0.59) (Table 1). Although we did not census the breeding population of Black-tailed Gulls on Hongdo Island, our results suggest that density of the gulls was higher in 2002 and 2003 than in 1997.

In a breeding population, the probability of egg and chick mortality and the intensity of competition for nest sites and food are likely to increase when population density increases. A decline in density may be observed when the breeding population is saturated. In such a case, individuals of good quality probably would coexist with poor-quality individuals. Lack (1968) suggested that clutch size was correlated with parental quality. However, we did not see this indication of variation in parental quality among years, even though density had increased. Therefore we suggest that density of the population may have increased since 1997, but without reaching saturation. We do not have complete evidence for this theory.

For preservation of a species, conservation of the breeding area is very important (Furness and Monaghan 1987). Access is not allowed to Hongdo Island at present, in order to protect the breeding Black-tailed Gulls. The government has not made a plan for conservation of the species, except for limiting public access. Although Black-tailed Gulls are very common in Korea and the population is increasing on Hongdo Island, which is the largest colony in Korea, the establishment of a conservation plan is very important. In addition, long-term monitoring of the breeding population of Black-tailed Gulls is necessary for preservation.

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FORUM

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CASPIAN TERNS, SALMON, AND STEELHEAD OF THE COLUMBIA RIVER: AN INDEPENDENT CRITICISM OF THE FEDERAL AGENCIES' MANAGEMENT PROPOSAL

Brian E. Sharp

The U.S. Fish and Wildlife Service (USFWS), the U.S. Army Corps of Engineers (USACE), and the National Oceanic and Atmospheric Administration (NOAA) have circulated a controversial Final Environmental Impact Statement (FEIS) (USFWS et al. 2005). This document proposes to decimate the Caspian Tern (*Sterna caspia*) colony at the mouth of the Columbia River, the largest colony in North America and perhaps in the world. Specifically, the proposal would reduce the number of terns in the colony from a 3-year average of 9,000 pairs to about 2,000 pairs. This would be accomplished by redistributing the terns to other sites if possible.

The federal agencies have tried to justify their proposed action by claiming (1) that it will increase salmon and steelhead populations, and (2) that reducing the number of terns and dispersing them will "benefit" the terns (USFWS et al. 2005:4-10). In this paper I will examine whether these two principal justifications are true or not.

BACKGROUND

In 1997-1998, when the tern colony was located 30 miles upriver from its present site, it was found that 73% of the tern diet consisted of salmon and steelhead ("salmonid") smolts. Researchers estimated that 8 to12 million smolts were being taken annually. Concern over this level of predation led to the relocation of the colony in 2000 to East Sand Island at the mouth of the estuary, and the diet of the tern colony now consists predominantly of marine fish species. The relocation has had the effect of reducing the proportion of salmonid smolts taken by terns to 17% of their diet, a reduction of more than 75% from previous levels. The estimated absolute number of smolts taken in 2003-2004 was a little more than 4 million.

AGENCY CLAIM NUMBER 1

Are the federal agencies' claims true—that "tern predation limits salmon and steelhead recovery," or its corollary, that "reducing the numbers of terns [at the Sand Island colony] will increase numbers of salmonids"? (NOAA 2002, USACE 2002, USFWS et al. 2005:1-9, J-5, J-11).

It has been found from studies on tagged fish that upper Columbia River and Snake River steelhead runs are the most heavily predated. A NOAA model has calculated that if 7,000 pairs of terns were removed from the estuary, it would result in a population change (λ) for these steelhead of at least +1%.

The NOAA estimate of a +1% change in λ for steelhead is based on the assumption that tern predation is 100% additive, which maximizes the magnitude of λ. There is no basis for this assumption. The agencies themselves admit (USFWS et al. 2005: J-7, 8) that the degree to which tern predation is compensatory or additive is "not known" at all. In reality, tern predation on salmonids is probably much more compensatory than additive. A multitude of avian, fish and mammalian predators other than terns—cormorants (*Phalacrocorax* spp.), mergansers (*Mergansers* spp.), Common Murres (*Uria aalge*), grebes (Podicipedidae), gulls (*Larus* sp.), hatchery fish, exotic warmwater fish, and marine mammals, including harbor seals (*Phoca vitulina*)—prey on salmonids. In the river, one native species of fish predator alone, the northern pike-minnow (*Ptychocheilus oregonensis*), takes an estimated 16 million salmonid smolts (Roby et. al. 2003). And in the ocean, juvenile mortality (from predators and other factors) is thought to be the most important factor limiting salmonid population change (USACE 2002). It is unrealistic for the agencies to presume that tern predation on salmonid smolts is not highly compensated by these and other significant mortality factors.

If one assumes conservatively that tern predation is only 50% compensatory, *the very best* that can be realized from limiting tern predation data is a possible increase in λ of 0.5% in most steelhead populations. Such small changes in l are insufficient: λ must increase 2-6% in order for salmonid populations to increase (Roby et al. 2003, Wilson and Schaller 2003).

The agencies also claim that the steelhead data "imply benefits to salmon." However, as NOAA itself admits (USFWS et al. 2005: C-4, K-1), no measurable increase or benefit can be expected for salmon runs from the steelhead data. Tern predation rates on salmon smolts are only 1/20th of those for the more highly predated steelhead, and the change in λ for salmon would be only about 0.05%, which is indistinguishable

from zero. Although the U.S. USFWS argues for benefits to salmon, it is not correct to claim that changes in λ for upper river steelhead runs imply *any* benefit to salmon runs (USFWS et al. 2005: C-4, K-1).

The passage discussed above is the only scientific support provided in the FEIS to support the claim that removing the terns will increase salmonid populations. The agencies rest their whole case on this one finding, a calculated, unrealized change in λ of 1% for most steelhead runs. Their logic requires the assumption of 100% additivity in the model, which they know themselves to be incorrect (USFWS et al. 2005: Appendices C and J).

There is, however, much evidence to the contrary that is ignored by the agencies in their analysis. Multi-year analyses of competing hypotheses by fisheries biologists have shown that the factors that predict, or limit, salmonid population change are ocean conditions, weather, and management of the hydrosystem. Factors like predation and human harvest are of less importance and have not been found to be correlated with changes in number of returning salmon and steelhead (Marmorek and Peters 2001).

These conflicting data were not included in the agencies' decision because the agencies claimed they were "outside the scope" of the FEIS. It seems to be obvious to everyone in the scientific community who commented on drafts of the FEIS, but not to the agencies, that one cannot judge the effect or significance of a proposed action if one doesn't know the proportion of the problem that the action addresses.

The USACE's position relating to this was, "Although significant mortality of juvenile salmon and steelhead occur [*sic*] in the ocean, our ability to influence ocean survival is limited. Therefore improvements in freshwater survival and production are *imperative* [italics mine]" (USACE 2002, USFWS et al. 2005: C-4). This brilliant piece of thinking was adopted by the cooperating agencies and forms the basis of their justification for the proposed action! Management of the hydrosystem—effects on salmonids of dam design, impoundment, amount of water spilled for fish passage, etc.—are major factors that impact the mortality of salmonid smolts. However, these were considered by the agencies to be "outside the scope" of the FEIS. The following are a couple of findings that are indeed germane to the question of whether terns "limit" salmonid populations:

- about 200 million hatchery smolts are released into the river annually;
- at each dam, and/or in each of the reservoirs behind the dams, the estimated salmonid mortality is 10-30 million smolts;
- there is a 6-15% mortality of smolts passing through the turbines at each dam, amounting to an overall 78% mortality through all the dams. Up to 160 million smolts die on their outward migration.

In contrast with the magnitude of such losses from dams, tern predation accounts for a loss of 4 million smolts, or 2% of the 200 million released into the river. Compared to the smolt mortality due to dams, tern predation is negligible. Small wonder that these inconvenient data were considered to be "outside the scope of the FEIS." The data were excluded because they would expose the distortions and untenability of the agencies' case.

Finally, two interesting natural experiments have occurred over the years. Between 1952 and 1970, there was a 65% reduction in salmonid numbers, and a further 89% reduction of Snake River salmonids from 1975 to 1990. The decline of Columbia River salmon runs occurred *before* the arrival of Caspian Terns in the estuary.

The second natural experiment is that in the 3-4 years before 2004, salmon and steelhead runs, even including the most heavily tern-predated upper river steelhead runs, increased dramatically to bumper levels, and at the same time there were large numbers of terns in the estuary. This was because the smolt-to-adult ratio (or survival in the ocean) of Snake River steelhead was 5.5 in 2001-2003, which was 4 times the rate for the previous 10 years (Williams et al. 2003).

These two natural experiments show that Caspian Terns in the Columbia River neither caused the endangerment of salmonids in the first place, nor do they prevent recovery of salmonid populations now.

The sponsors of the proposed action would have us believe that tern predation limits salmonid populations on the basis of flawed evidence (the steelhead λ data). However, the preponderance of the evidence leads to the conclusion that tern predation is not limiting salmon, nor even the most heavily tern-predated runs of upper river steelhead. And, most telling, NOAA itself has even stated that the impact of reducing tern predation is overwhelmed by a host of more important factors, "which include, but are not limited to, hydropower operations, harvest rates, habitat conditions, the influence of hatchery fish and exotic [fish] species, ocean conditions, and climate change" (USFWS et al. 2005: C-17). The agencies themselves admit that these factors "have the potential to influence [salmonid] population growth rates to a substantially greater degree than … reducing predation from avian predators in the Columbia River estuary" (USFWS et al. 2005: 4-18).

AGENCY CLAIM NUMBER 2

The second claim made in the FEIS is that "management [decimating the colony in the Columbia River estuary] would help ensure the long-term conservation of the regional tern population," would protect the terns from "stochastic events," and would therefore be in the terns' own best interests (USFWS et al. 2005: 1-4 and 4-10). The agencies' logic is that terns are safer in a number of smaller colonies in the event of oil spills, storms, and disease, than if concentrated in one large colony. The agencies disregard the available evidence in making the claim of "benefit" to the terns.

Several lines of evidence refute the agencies' claim.

(1) Caspian Terns already are not concentrated in a single colony. There are 60 colonies in the western United States, and many more in North America and in the world (USFWS et al. 2005: 3-5). So there is no need to disperse Caspian Terns—they are dispersed already. This important fact seems to have escaped the agencies' thinking, despite the fact that they contracted to have data on tern distribution summarized for them.

(2) The agencies present no data at all to support their assertion that any of the "supposed" threats are in fact "real" threats. Disease—no data; storms—no data; oil spills—no data. The agencies' assertions are pure supposition.

For example, data on oil spill occurrences on the west coast show that of 15 major wildlife-damaging spills, 14 occurred in winter. Terns are not present at their breeding colonies in winter. Moreover, none of the oil spills occurred anywhere near the Columbia River estuary. However, several oil spills have occurred in San Francisco Bay, which is one of the sites to which the agencies are hoping to disperse the terns. It is clear that the available oil spill data not only don't support, they actually contradict the agencies' claim that the terns must be moved to protect them from oil spills.

(3) Similar objections can be raised about storms and disease. The agencies provide no data to demonstrate that there is a real threat from either of these "stochastic events."

(4) Serious problems exist at all 7 of the sites to which it is suggested the terns be dispersed. Two of three Oregon sites are small and cannot accommodate more than a few dozen pairs. The single site in Washington is a new colony on the mainland; its accessibility to mammalian predation will prevent it from growing or accepting many displaced pairs. The agencies unreasonably suggest that this colony might take a couple of thousand pairs! The 3 tern colonies in San Francisco Bay have been stable for decades, are probably at carrying capacity, and cannot accommodate many extra pairs. San Francisco Bay also has a history of oil spills (see above) and mercury contaminant problems. There also would be conflicts with 3 endangered species —Clapper Rails (*Rallus longirostris obsoletus*), Snowy Plovers (*Charadrius alexandrinus nivosus*), and Least Terns (*Sterna antillarum browni*).

Considering all the sites together, only a couple of thousand, if that, of the 7,000 pairs of terns that the agencies propose to displace could be accommodated at the alternative colony sites. The agencies' numbers don't add up.

The facts that the agencies disregard demonstrate that their claim—that it is in the terns own best interests to move the colony and/or reduce its numbers—is untrue. The claim not only is unsupported by any evidence, but is contradicted by the evidence that is available. The agencies' claim should be regarded as self-serving, intended only to justify their proposal.

CONCLUSIONS

The two major claims by the agencies—that reducing terns will increase salmonids, and that breaking up the tern colony is in the terns' own best interests—have been shown to be inconsistent with the preponderance of the evidence and are unsupported by any data whatsoever. In other words, they are based on mere supposition. The decision in the FEIS proceeds from foregone conclusion to justification. Both of the agencies' justifications for their decision distort and even ignore data that are at variance with the desired conclusion. The result is a non-compelling justification for decimating the world's most successful Caspian Tern colony. The agencies are setting a pseudo-scientific precedent. At worst, the effect of the proposed action on the regional tern population could be disastrous. At best it is a waste of the taxpayers' money, time, and energy. The decision to relocate the terns is impractical and simply won't work.

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LIFETIME ACHIEVEMENT AWARD

Spencer G. Sealy: Pioneer of Pacific Alcid Research

Harry R. Carter and **Percy N. Hébert**

The Lifetime Achievement Award is the most prestigious award of the Pacific Seabird Group (PSG). For his outstanding contributions to the knowledge and conservation of Pacific seabirds, PSG chose Dr. Spencer G. Sealy as the recipient of this award for 2005.

Research on the Pacific Alcidae began in earnest in the mid-1960s. This was preceded by important studies in the Atlantic and Arctic oceans by Lockley, Perry, Belopol'skii, Kaftanovskii, Uspenski, Tuck, Tschanz and others from the 1930s on. Major syntheses of alcid research by Salomonsen, Storer, and Udvardy led to great interest in competition and ecological segregation among the 20 species of little-known Pacific alcids, in comparison with the mere 6 species of better-known Atlantic alcids.

Early Pacific work began in the 1940s to early 1960s, with Storer, Richardson, Thoreson, Drent, Swartz, and others, who showed interesting differences between Atlantic and Pacific alcids. However, many Pacific alcids, especially those in the famed Beringian region itself, remained poorly known. Professor Miklos Udvardy (Department of Zoology, University of British Columbia, Vancouver) unleashed students Jean Bédard and Spencer Sealy to discover new knowledge about the previously unstudied Least, Crested and Parakeet Auklets (*Aethia pusilla*, *A. cristatella,* and *A. psittacula*), by initiating extensive studies at remote St. Lawrence Island in the northern Bering Sea. Thus began the modern era of alcid research. This new knowledge of central Beringian alcids was followed by many extensive studies of Pacific, Atlantic, and Arctic alcids over the next 40 years, continuing the process of discovery within this diverse and fascinating family of birds.

MSc student Sealy first accompanied PhD student Bédard to St. Lawrence in 1966, during Bédard's third and final year of research there. Sealy then returned on his own in 1967 to study factors affecting the timing of breeding for Least, Crested, and Parakeet Auklets (Sealy 1968, 1973, 1975a, 1981, 1984; Sealy and Bédard 1973; Bédard and Sealy 1984), as well as studying Horned Puffins on the side (Sealy 1969, 1973). Sealy assisted Bédard with bird collections from a small skiff at sea in the nearby icy waters, but he spent most of his time crawling among the austere boulders to monitor nests of the myriad of diurnal auklets (Figure 1). Both Bédard and Sealy lived in a Siberian Yup'ik village and befriended their native hosts. Sealy's breeding studies nicely complemented Bédard's feeding and diet studies. Not only did the three auklets differ morphologically and in their selection of marine prey, but also different breeding adaptations further influenced how these birds exploited their different ecological niches (Bédard 1969a, assic paper "Adaptive radiation of Alcidae" (Bédard 1969c). This amazing experience at St. Lawrence Island made a deep impression on Sealy.

During his PhD studies under Bob Storer at the University of Michigan at Ann Arbor from 1968 to 1972, Sealy pursued his passion, the study of the biology of Pacific alcids. He conducted the first major studies of the feeding ecology and breeding biology of Ancient and Marbled Murrelets (*Synthliboramphus antiquus* and *Brachyramphus marmoratus*) at remote Langara Island, at the northwest corner of the Queen Charlotte Islands, British Columbia (Sealy 1972, 1974, 1975b, c, 1976). Although he originally intended to compare the biology of Ancient

FIGURE 1. Spencer Sealy at St. Lawrence Island in 2004, checking auklet nests in boulder nesting habitat, as he did almost 40 years earlier on the same island. (Photo by L. Sheffield)

Murrelets with that of Cassin's Auklets on Langara and Cox islands, Sealy did not find sufficient numbers of auklets to study. Marbled Murrelets co-occurred in areas where he collected Ancients, so he substituted them for the Auklets. What a difference it made to be studying both a nocturnal alcid, and an alcid whose first nest had not officially been discovered!

In 1970, Sealy worked alone on the mossy slopes under old-growth trees where Ancient Murrelets nested in burrows and amid tree roots, and he rented skiffs from local fishers to collect birds at sea. In 1971 he was assisted by his wife, Noreen, and had a small inflatable *Canova* skiff for collections at sea. After banding one member of several pairs in their burrows, without removing them for fear of desertion, his sole connection with living Ancient Murrelets at their nests was feeling their legs in the burrows to determine whether the banded individual or its mate was incubating. Through studies of collected birds, Sealy learned a great deal about the elusive Marbled Murrelet; however, he never found a nest

Noreen was amazed at Spencer's ability to plan adequate supplies for several months on a deserted, rainy island in the middle of nowhere, climb up and down the nesting slopes every day, run a skiff and collect birds even in rough seas, and dissect specimens and prepare study skins at night (which was very necessary because they lacked refrigeration). After being dropped off at the island by float plane, they lived simply but comfortably in small plywood shacks above the welcoming beach at Dadens (Figure 2), with permission from the Masset Haida.

It is noteworthy that Sealy conducted his Langara studies where Brooks, Green, and Darcus had searched for the first nest of the Marbled Murrelet in the 1920s, Guiguet had been in the 1940s and 1950s, and Campbell worked in the mid-1960s. Langara also is within sight of Forrester Island, Alaska, where Heath, Willett, and others made important observations of breeding Ancient Murrelets much earlier in the century. However, Sealy conducted the first extensive, modern studies of Ancient and Marbled Murrelets, with an eye towards how these species fit within the wide range of alcid adaptations.

FIGURE 2. Dadens camp site at Langara Island, British Columbia in 1971, where Sealy conducted the first major studies of Ancient and Marbled Murrelets. (Photo by S. Sealy)

Immediately after graduate school in 1972, Sealy began teaching at the Department of Zoology, University of Manitoba, Winnipeg. In addition to a heavy teaching load, he developed a large program of avian research based at the university's Delta Marsh Field Station, which is located on a forested dune ridge along the southern shore of Lake Manitoba. His work at Delta Marsh has focused primarily on breeding and feeding ecology of passerines, such as Yellow Warbler (*Dendroica petechia*) and Least Flycatcher (*Empidonax minimus*), and the interactions of Cowbirds (*Molothrus ater*) and their hosts.

To seabird biologists, Sealy's new focus on passerine work on the Canadian prairies was a major change in direction, but he actually began his ornithological career as a youngster in Kindersley and Battleford, Saskatchewan, near the heart of the prairies. Son of a United Church minister and wife who encouraged him to appreciate nature, he became an avid birdwatcher with a collection of bird skins. His first publication appeared in 1960 when he was in grade 11. As a teenager and undergraduate at the University of Alberta in Edmonton, he also was influenced strongly by prairie and arctic ornithologists, especially Nero, Houston, Webb, and Vermeer. In fact, it was Kees Vermeer who suggested that Sealy consider conducting a MSc project on gulls at Mandarte Island, British Columbia, where Vermeer had recently completed his own MSc work. Once Sealy was at the University of British Columbia, his advisor Udvardy steered him toward Bédard and Pacific alcids. Udvardy soon moved to California State University Sacramento, and Sealy fended for himself through the rest of his MSc. studies. Storer had welcomed Sealy to the University of Michigan but also left Sealy on his own to pursue his PhD alcid dreams. In any case, it was not surprising that, with his broad interest in birds even after 7 years of adventure and 2 degrees on Pacific alcids, Sealy took his position as professor at the University of Manitoba. In fact, a professorship had been his goal all along and he was glad to be back in this familiar region he loved.

Over his career of more than 40 years, Sealy has worked hard and steadily on research, teaching, and supervising graduate students. His major research areas include behavioral and evolutionary ecology of avian brood parasites and their hosts, ecology of seabirds, songbird population trends, and sociality among tropical birds. In addition, he has built up a teaching and research collection of birds in the Department of Zoology at the University of Manitoba, preparing most specimens himself; studied cloud-forest birds in Costa Rica; and continued studies of Pacific seabirds and the avifauna of the Queen Charlotte Islands. He recently returned to St. Lawrence Is-

land, at the invitation of Lisa Sheffield and others, to participate in ongoing auklet studies (Figure 3). He also has developed a long-standing interest in alcid vagrancy, which has led him to conduct a massive literature search and examination of alcid specimens from many museums in North America and Europe. Many products from this work are still in progress. No one would undertake such an immense task if he was concerned solely with the number of publications he could produce each year!

Thus far, Sealy has supervised 9 PhD and 42 MSc students, who have conducted studies on most avian groups and on a vast array of topics. Seabird graduate students and other seabird biologists influenced by him include the authors, Glen Chilton, Leah de Forest, Keith Hobson, Paul James, Julie Porter, and Gus van Vliet. He has worked independently or with his students for most of his career. Those students who have chosen to know and learn from him have become valued partners and friends — a key part of his intense schedule of everyday life.

In 1979-1983, HRC had the great good fortune to follow in Sealy's footsteps as one of his graduate students by studying Marbled Murrelets for his MSc thesis, after also planning (like Sealy) to conduct studies on different alcids. Every day in Barkley Sound, British Columbia, and almost every day in Winnipeg, they talked about alcids, seabirds, and other studies in which Sealy was involved. Their studies, discussions, and summaries of the historical literature led to the conclusion that Marbled Murrelets nested mainly on the branches of old-growth trees, which were seriously threatened by logging, while at the same time substantial mortality was occurring in gill nets at sea. HRC presented concerns about gill-net mortality at a special PSG symposium in January 1982 in Seattle, Washington (Carter and Sealy 1984). At the same time, Sealy brought their theories about old-growth forest dependency in British Columbia and concerns about habitat loss before a major meeting of the world's seabird biologists, hosted by the International Council for Bird Preservation at Cambridge University, England, in August 1982 (Sealy and Carter 1984). Old-growth dependence was a large assertion and was difficult to defend, given the information available at that time. These papers and succeeding ones (Carter and Sealy 1986, 1987a) helped lay a foundation for the listing of the Marbled Murrelet as a threatened species in British Columbia, Washington, Oregon, and California in 1990-1992. Also crucial in the pressure for listing were a special PSG Marbled Murrelet symposium held in 1987 (Carter and Morrison 1992) and a status report prepared shortly thereafter for the National Audubon Society (Marshall 1988).

In 1987-1991, PNH had the good fortune to conduct his PhD studies on Yellow Warblers at Delta Marsh, under Sealy's supervision and in solid collaboration with him. His experience was similar to HRC's: at Delta Marsh and in Winnipeg, they talked daily about warblers and about the ecology and behavior of birds in general. Several years later, PNH also had the opportunity to study Marbled Murrelets with radio telemetry in northern California (Hébert and Golightly 2003; Hébert et al. 2003), as part of the long effort by many people to reveal some of the secrets of this curious alcid, based on questions raised over 30 years ago by Sealy. Thus, PNH has appreciated both the land bird and seabird sides of Sealy's extensive world. Most people are fully challenged by their own area of specialty, but the authors and other students have experienced Sealy as a willing fountain of knowledge and ideas about birds that extended far beyond any one area or topic of discussion.

By 2005, Sealy had published about 240 papers, with over 50 papers on seabirds. He was the sole author of many publications, and many others were co-authored with students who now contribute strongly to ornithological research in Canada and around the world. He has been driven to publish extensively, not by the "publish or perish" threat, but by his intense desire to know more about the birds that have captivated his curiosity and imagination for his entire life. Sealy has taught specialized courses on seabird biology at the Bamfield Marine

FIGURE 3. Spencer Sealy at St. Lawrence Island in 2004, pondering a Crested Auklet in the hand. (Photo by L. Sheffield).

Figure 4. Spencer Sealy with Lifetime Achievement Award and former students. Left to right: Percy Hébert, Sealy, Keith Hobson, Harry Carter. (Photo by G. McChesney)

Station on the west coast of Vancouver Island, British Columbia (1976, 1977, 1982), and in Iceland (1987). He organized alcid symposia at the first PSG meeting in 1974 and again in 1987 ("Auks at Sea" [Sealy 1990]) and co-edited another PSG alcid symposium in 1993 ("Biology of the Marbled Murrelet: inland and at sea" [Nelson and Sealy 1995]). Furthermore, Sealy has been active in the ornithological community as a reviewer and board member. He was a founding member of PSG and the Society of Canadian Ornithologists, an associate editor of the *Canadian Journal of Zoology*, and currently is editor of *The Auk*. He is one of few Canadian ornithologists to have studied and been interested in almost all aspects of the distribution, ecology, behavior, and physiology of North American birds. Such breadth of knowledge is rarely seen today, as researchers become more specialized.

Spencer Sealy's hard work, dedication, and daily commitment over more than four decades have been truly inspirational. In addition to this PSG Lifetime Achievement Award (Figure 4), he received the Doris Heutis Speirs' Award, the highest honor of the Society of Canadian Ornithologists/Société des Ornithologistes du Canada, in August 2004. All this recognition humbles Sealy, who fully recognizes the contributions that so many have made to the knowledge and conservation of birds, particularly Pacific seabirds. When Sealy began his career, there were far fewer biologists than today who were dedicated to the study and protection of Pacific seabirds. Sealy and a few individuals like him, driven chiefly by strong curiosity, led early scientific efforts to study little-known seabirds in a vast and wild Pacific Ocean. They have helped to lay a firm foundation for all current and future research and conservation on Pacific seabirds.

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CONSERVATION REPORT

Compiled by Craig Harrison

SHORT-TAILED ALBATROSS POPULATION CONTINUES TO INCREASE

Hiroshi Hasegawa reports the following results from his November-December 2004 field trip to Torishima to observe Short-tailed Albatrosses (*Phoebastria albatrus*):

1. A total of 302 pairs nested in the 2004-2005 season on Torishima, an increase of 25 pairs (9%) from last season.

2. At the original colony on the upper slope of Tsubame-zaki, situated at the southeastern tip of Torishima, there were 296 nesting pairs, an increase of 20 pairs.

3. Two new pairs laid eggs in the patches of *Miscanthus* grass on a flat site at the cliff-top of Tsubame-zaki. The nests are 95 m apart but both are within 500 m of the original colony on the slope. Black-footed Albatrosses (*P. nigripes*) began nesting here in very small numbers in the 1999-2000 season.

4. On the northwest slope of Torishima, decoys and sound playback have now resulted in four nests—one pair which has nested every year at the same spot in the past 10 years plus three new pairs. A new "artificial" colony has at last been established at a safe site.

5. With improvements in breeding success through erosion control and grass transplant, a large number of young have been produced from the original colony (192 young in 2003-2004, or a total of 1113 young during the last 7 years). The original colony appears to be increasingly crowded, so returning immature birds are expanding the nesting area by settling in new sites.

6. The success in establishing a new colony should reduce the impact of natural disasters such as landslides or mud flows of volcanic ash on the nesting areas.

7. These developments constitute a first step toward establishing a third breeding colony in the Mukojima group in the Ogasawara Islands by chick translocation and hand-rearing to fledging.

ATTEMPTS TO OPEN FARALLON ISLANDS TO THE PUBLIC UNSUCCESSFUL

Representatives Richard Pombo (R-Calif.) and Nick Rahall (D-W.Va.) introduced a bill to Congress early this year that would require access to the Farallon National Wildlife Refuge and to two uninhabited marine sanctuaries in the Western Caribbean. The Farallones are the largest seabird breeding colony in the contiguous United States, containing over 250,00 breeding seabirds of 12 species. The islands lie 28 miles west of San Francisco and have been a national wildlife refuge since 1909. The only significant human presence since 1969 has been a small group of seabird biologists. The bill was written in response to complaints from amateur radio enthusiasts who want to broadcast from the Farallones. Members of the public would be able to visit the islands "during at least one period each year," according to the legislation, which also would allow the U.S. Fish and Wildlife Service (USFWS) to impose conditions to protect the Farallon Islands habitat. Currently USFWS limits visitors to eight researchers at a time.

PSG sent letters to numerous federal legislators in opposition to the bill. PSG's concerns include the potential disturbance of wildlife by inexperienced visitors, habitat damage done by inexperienced visitors, introduction of exotic plants and animals, and public safety. PSG also argued that the National Wildlife Refuge System Improvement Act of 1997 authorizes refuge managers to decide on a case-by-case basis which uses are compatible with the purposes of a refuge, and which are not. PSG believes that professional refuge managers should be free to manage their refuges effectively.

Rep. Nick Rahall, the top Democrat on the Resources Committee of the House of Representatives, rescinded his support for opening up the islands after other legislators announced opposition to the proposal. The chairman of the committee, Richard Pombo, initially indicated he would continue to push the measure; however, he later withdrew his sponsorship with respect to the Farallones because, according to his spokesman, it "wasn't going anywhere." The bill would still allow more visits to two uninhabited islands in the western Caribbean, the Navassa and Desecheo refuges.

PSG COMMENTS ON MONTROSE RESTORATION PLAN

PSG has commented on proposals to restore birds and other wildlife damaged by the world's largest known DDT contamination. The Montrose Chemical Corporation of southern California dumped about 1800 tons of DDT and an unknown amount of PCBs into its sewer system between 1947 and 1971, resulting in massive contamination of the California Bight. Settlement of a federal lawsuit against the company and its successors created a fund of $73 million, of which $30 million will be spent on restoration of natural resources and $43 million in trying to clean up the ocean floor. PSG commented on the Draft Restoration Plan and Programmatic En-

vironmental Impact Statement, which was issued in April 2005. PSG generally supported the preferred alternative in the plan, including all seabird projects that were proposed. PSG particularly applauded the trustees' decision to fund projects in Baja California. We have previously supported similar proposals to extend restoration efforts outside the United States, including restoration of a Brown Pelican colony in Baja under the American Trader Oil Spill Trustee Council and a Sooty Shearwater (*Puffinus griseus*) colony in New Zealand under the Command Oil Spill Trustee Council.

PSG did suggest that spending half of the money for bird restoration on a single species (the Bald Eagle, *Haliaeetus leucocephalus*) seemed inappropriate, since 11 seabird species were affected, and seabirds would suffer if eagle restoration was successful.

PSG endorsed the following projects in the preferred alternative:

- Restoration of Ashy Storm-Petrels (*Oceanodroma homochroa*), Cassin's Auklets (*Ptychoramphus aleuticus*), Xantus's Murrelets (*Synthliboramphus hypoleucus*), Western Gulls (*Larus occidentalis*) Brandt's Cormorants (*Phalacrocorax penicillatus*), Pelagic Cormorants (*P. pelagicus*), and Pigeon Guillemots (*Cepphus columba)* to San Miguel Island, Channel Islands, by eradicating black rats (*Rattus rattus*);
- Restoration of Cassin's Auklets and Xantus's Murrelets to Santa Barbara Island, Channel Islands, by social facilitation;
- Restoration of Western Gulls and Brandt's Cormorants to San Nicholas Island by eradicating feral cats;
- Restoration of Ashy Storm-Petrels, Cassin's Auklets, Xantus' Murrelets, California Brown Pelicans, Double-Crested Cormorants (*Phalacrocorax auritis*), and Rhinoceros Auklets (*Cerorhinca monocerata*) to Scorpion Rock (off Santa Cruz Island) by eradicating non-native vegetation and installing nest boxes;
- Restoration of Brandt's Cormorants, Double-Crested Cormorants, Pelagic Cormorants, California Brown Pelicans, Western Gulls, Cassin's Auklets, Ashy Storm-Petrels, Black Storm-Petrels (*Oceanodroma melania*), and Xantus's Murrelets to Coronado and Todos Santos Islands, Baja California, by social attraction and improving nesting habitat;
- Restoration of seabirds (Cassin's Auklets, Brandt's Cormorants, Xantus's Murrelets, and Western Gulls) to Guadalupe Island, Baja California, by eradicating feral cats;
- Restoration of California Brown Pelicans, Double-Crested Cormorants, Brandt's Cormorants, Cassin's Auklets and Xantus's Murrelets to San Jeronimo and San Martín Islands, Baja California, by social attraction and improving nesting habitat; and
- Restoration of Xantus's Murrelets to San Benito, Asunción and San Roque, Baja California, by social attraction and improving nesting habitat.

PSG also endorsed the following "alternative" projects in the preferred alternative:

- Restoration of Ashy Storm-Petrels to Anacapa Island, Channel Islands, by social facilitation and nest boxes;
- Creation and enhancement of Brown Pelican habitat on Southern California mainland; and
- Implementation of programs to reduce entanglement and improve outreach in Southern California fisheries to protect Brown Pelicans.

HAWAI'I PROPOSES MARINE REFUGE FOR NORTHWESTERN ISLANDS

State waters surrounding the Northwestern Hawaiian Islands would become a highly protected "marine refuge" under a proposal by the Hawaii Department of Land and Natural Resources. The Northwestern Islands are a chain of small islands, atolls, submerged banks and reefs that stretch 1200 miles northwest of the main Hawaiian Islands. The proposed status provides the highest level of protection as a conservation area. Under the draft rules, no commercial or recreational fishing would be allowed, nor would removal of any natural or cultural resources from state-controlled waters. Visits to the refuge would only be allowed for research, management and native Hawaiian cultural purposes that do not harm the environment, and only then with a state permit. State waters extend out from the shores of islands and atolls for three miles and encompass most of the coral reefs in the Northwestern Hawaiian Islands. Federal waters around the islands out to 50 miles are now part of the Northwestern Hawaiian Islands Coral Reef Ecosystem Reserve and are in the years-long process of becoming the country's 14th National Marine Sanctuary. The Western Pacific Regional Fisheries Management Council has objected to suggestions that fishing in the Northwestern Islands be capped at current levels or phased out entirely.

FCC SUED OVER FAILURE TO PROTECT HAWAIIAN SEABIRDS FROM TOWER COLLISIONS

The Federal Communications Commission (FCC) was sued on July 27, 2005 for failing to protect the Newell's Shearwater (*Puffinus newelli*) and Hawaiian Petrel (*Pterodroma sandwichensis*) from collisions with large communication towers on Kaua'i and the Big Island. The plaintiffs are the American Bird Conservancy, Forest Conservation Council, and the Conservation Council for Hawai'i.

Both species are listed under the Endangered Species Act (ESA). The groups contend that the FCC has been violating the ESA because it did not consult with USFWS, which is required whenever a federal action may impact a threatened or endangered species. They also claim that the FCC should not have

delegated all its responsibility for complying with the ESA to the commercial companies that erected the towers.

OIL SPILL IN ALEUTIANS HARMS SEABIRDS

The M/V *Selendang Ayu*, a Malaysian-flagged freighter en route to China from the U.S., ran aground and broke apart in early December 2004 on the shore of Unalaska Island, 800 miles southwest of Anchorage. Over 300,000 gallons of intermediate fuel oil and 15,000 gallons of diesel fuel were spilled. The ship ran aground near Spray Cape, and initially the oil appeared to move into Makushin, Skan, and Pumicestone bays (northwestern Unalaska). After an unsuccessful search for lost crew members, officials surveyed the damage from the wreck. The slick expanded into waters managed by the Alaska Maritime National Wildlife Refuge, home to endangered marine mammals and threatened seabirds as well as healthy populations of salmon, halibut, and crab. The extreme weather conditions in the area and the dense, viscous nature of the vessel's fuel proved a challenge to clean up.

Refuge staff helped gather the ephemeral data that would be needed to assess the numbers of birds and marine mammals injured by the spill, including documentation of which species and habitats have been oiled. The heaviest oiling was in Skan Bay and northern Makushin Bay, but heavy spotting probably occurred on beaches over several hundred km of coastline. Studies were conducted within the defined "spill zone" from Volcano Bay to Pumicestone Bay on the northwestern portion of Unalaska. As expected in this environment, scavengers—red foxes (*Vulpes vulpes*), Bald Eagles, Glaucous-winged Gulls (*Larus glaucenscens*), Northern Ravens (*Corvus corax*), and Norway rats (*Rattus norvegicus*)—went to work immediately on the oiled carcasses. This is causing challenges with identification of oiled species. The majority of recovered seabirds may be Crested Auklets (*Aethia. cristatella*), but live or dead oiled individuals were seen of more than 30 species of birds, as well as harbor seals (*Phoca vitulina*), sea otters (*Enhydra lutris*), and red foxes. More precise results are expected to be available later this year, but data may not be released immediately because this spill is under investigation for the violation of several environmental statutes.

NAFTA CHALLENGE FILED AGAINST CORONADO ISLANDS LNG FACILITY

Environmental groups and individuals filed challenges to a planned Chevron Corporation liquefied natural gas (LNG) terminal near the Coronado Islands, Mexico, under the North American Agreement on Environmental Cooperation. This convention is the environmental side-agreement of the North American Free Trade Agreement (NAFTA). The petitioners to the Commission on Environmental Cooperation include Greenpeace Mexico, the Center for Biological Diversity, the American Bird Conservancy, the Los Angeles Audubon Society, the Pacific Environment Resources Center, and Wildcoast. In addition, there were two individual petitioners, Mexican environmental activist Alfonso Aguirre and PSG member Shaye Wolfe.

PSG has previously objected to the $650 million project (*Pacific Seabirds* 31:6, 2004), which would receive 1.4 billion cubic feet of natural gas per day, or about one fifth of California's current demand. The proposed terminal would have a 300-foot platform, serving as both receiving dock and a storage and re-gasification facility, and would be connected by pipeline to Baja California. It would be built 600 yards from the shoreline of an island where an estimated 5,000 Xantus's murrelet breed, about half of the entire worldwide population. The State of California has listed this species as endangered (*Pacific Seabirds* 31:6, 2004).

The NAFTA commission can hold hearings on environmental disputes, but it cannot make recommendations, nor can it stop projects like the LNG terminal from proceeding. However, the filing is designed to secure the attention of Mexican officials. Mexico's environmental secretariat approved the proposal in September 2004. The LNG terminal is still being designed and needs several local permits before construction can begin. A petition under Article 13 calls on the Commission to investigate the project as a threat to transborder wildlife, particularly in regard to its impact on the Xantus's Murrelet and other seabirds. A petition under Article 14 raises concerns over Mexico's failure to enforce its environmental laws (General Law of Ecological Balance and Environmental Protection and the General Wildlife Law of Mexico), and over the inadequacies of the Chevron's Environmental Impact Assessment.

Concerns about the effects of the project on the murrelet include light pollution, direct disturbance, the potential for spills and discharges and catastrophic explosion. Light pollution could dramatically reduce the breeding success of murrelets and increase predation. In addition, noise and ocean turbidity caused by activity at the platform could disrupt the mating of brown pelicans, double-crested cormorants, Brandt's cormorants and pelagic cormorants. The petition states that by placing the terminal in Mexico, it is "an energy maquiladora [foreign partnership] project reminiscent of the pre-NAFTA flight of environmentally destructive projects across borders to avoid environmental safeguards." Mexico has yet to declare the four-island archipelago a natural protected area, although the nation's congress has ordered federal agencies to create one.

The petitions are available at http://www.biologicaldiversity.org/swcbd/species/seabirds/Art-13-sm.pdf and http://

www.biologicaldiversity.org/swcbd/species/seabirds/Art-14-sm.pdf

PSG SUPPORTS DESIGNATION OF BIOSPHERE RESERVE FOR BAJA'S PACIFIC ISLANDS

PSG has urged creation of a biosphere reserve that would include the Pacific islands of Baja California. A letter was sent to the Mexican Secretary for the Environment and Natural Resources in July 2005. PSG pointed out that more than 2.3 million seabirds of 20 species breed on these islands. Protection of seabird populations would benefit the entire ecosystem of which they are a part, including fish that are harvested commercially. It is important to protect the islands now, in order to manage increasing threats from tourism, illegal fishing, and other sources.

SCIENTISTS SAY EFFECTS OF EXXON VALDEZ SPILL ARE LINGERING

Some impacts from the 1989 *Exxon Valdez* oil spill are still noticeable, according to scientists at the Marine Science in Alaska 2005 Symposium in January. The annual symposium is sponsored by the Exxon Valdez Oil Spill Trustee Council, governmental agencies, and private science groups. Studies focused both on the oil that remains on beaches and on lingering impacts on marine life from oil that has already disappeared. Although only small traces of oil remain on certain sheltered beaches, the amount is far more than predicted. The oil remaining in the lower end of the inter-tidal zone has been disappearing at a rate of about 25% per year, far slower than the 58% annual loss rate predicted in the early 1990s. Most resources still classified as injured have little or no exposure to lingering oil. Fifteen years after the spill, pigeon guillemots, marbled murrelets (*Brachyramphus marmoratus*), and Kittlitz's murrelets (*B. brevirostris*) do not appear to have returned to their pre-spill population levels, while cormorants and black oystercatchers (*Haematopus bachmani*) appear to have increased.

The question of lingering impacts has possible legal consequences. Under a "reopener provision" in the 1991 settlement with Exxon, Alaska and the U.S. Justice Department have until September 2006 to make claims for a possible $100 million in additional payment for unanticipated natural resource damages. Exxon has long maintained that there are no lingering effects of the spill and contends that while oil spills can have acute short-term effects, the environment has remarkable powers of recovery. The trustee council is sensitive to Exxon's point of view, as well as complaints that council-funded scientists may have a conflict of interest and be biased in favor of finding lingering impacts so as to secure funds for their own studies. The trustee council hired a consultant to synthesize all existing studies about lingering effects of oil, including studies done by scientists hired by Exxon. The council expects a report by the end of 2005 about impacts of the oil and what to do about them. Under terms of the reopener, any additional money obtained for unanticipated damages must be used for specific restoration or replacement purposes.

RESTORATION PLAN FOR OREGON MARBLED MURRELET HABITAT

Purchase of Marbled Murrelet habitat in Oregon's coastal forest would be part of a proposed oil spill restoration plan. The conservation of 1290 acres for the threatened species is among the key proposals by a coalition of tribal, state and federal agencies, which formulated the plan as part of a $10.5 million settlement over the *New Carissa* spill in February 1999. The wood chip freighter ran aground near the Oregon Dunes National Recreation Area after a heavy storm, and again after a rescue attempt, spilling at least 70,000 gallons of fuel into Coos Bay. The *New Carissa*'s 1500-ton stern section remains stuck near Coos Bay's North Spit. The spill killed more than 2300 gulls and other seabirds, including 262 Marbled Murrelets. Under the terms of the settlement approved by the U.S. District Court for the District of Oregon in 2004, Taiheiyo Kaiun agreed to pay $10.5 million—$6.5 million for the cleanup and $4 million to fund the restoration plan. Two other areas of interest for Snowy Plover (*Charadrius alexandrinus*) restoration are mentioned in the proposal: land near the Bandon National Wildlife Refuge, and an unidentified pasture in the flood plain of a major southern Oregon river.

NORTHWEST STATES END COMMERCIAL SALMON FISHING FOLLOWING LOW RUN

Facing unexpectedly low numbers of chinook salmon (*Oncorhynchus tshawytscha*) returning to the Columbia and Snake river systems this spring, Idaho, Oregon, Washington and four Indian tribes with fishing rights have ended commercial fishing for the season. About one-fifth of the number of expected spring chinook passed Bonneville Dam, the first of eight federal dams along the rivers. Further up in Idaho, less than one percent of the number that passed through fish ladders in 2001 at the Lower Granite Dam on the lower Snake River. The population decline came just before a federal judge ruled that a 2004 biologi-

cal opinion by the National Marine Fisheries Service violates the Endangered Species Act and pushes salmon further toward extinction. That opinion said that the agencies should have considered changes to the dams in the biological opinion.

RESEARCHERS LOCATE CONCENTRATION OF LOST FISHING NETS

Researchers of the National Oceanic and Atmospheric Administration (NOAA) have located a concentration of lost or abandoned fishing nets that drift through the oceans, posing a danger to fish and other wildlife. The mass of nylon filament was found north of Hawaii by using satellites and aircraft. Now that they have confirmed the location of the nets, the researchers are trying to determine the best way to clean them up and to arrange funding for the effort. Ocean winds and currents can concentrate drifting materials, so satellites were used to study these forces to determine areas where concentrations can occur. They confirmed their theory by flying out to the area in a NOAA P-3 aircraft. They discovered a large concentration of drifting nets and other debris in an area that forms a boundary between northern and southern water masses. NOAA said the nets were found using a digital imaging system aboard the aircraft flying from Hawaii. Most modern nets are made from synthetic materials, which decay extremely slowly. They can continue to drift for years, and the researchers said many of them get caught on coral reefs, where they entangle fish and also damage the fragile coral. During three days of study, about 2,000 individual pieces of debris were seen, including at least 100 that were identified as nets or pieces of net. Many items were balls of net up to 30 feet across. One piece of driftnet that was still stretched out, and presumably still catching fish, was 200-300 meters in length.

SOUTHERN CALIFORNIA OIL SPILL REMAINS A MYSTERY

In mid-January, oiled birds appeared on beaches of southern California for a little over two weeks, and approximately 1500 birds (about 1200 captured live) were treated at rescue centers. Almost all of the birds were Western and Clark's Grebes (*Aechmorphorus occidentalis* and *A. clarkii*), predominantly Westerns. There were also some Eared Grebes (*Podiceps nigricollis*), Surf Scoters (*Melanitta perspicillata*), Brown Pelicans, and cormorants. This was the largest number of live oiled birds ever brought through the rehabilitation process in California. No responsible party has been identified. Investigators ruled out both a Santa Barbara pipeline and natural seeps of the Monterey Formation. The event was correlated with unusually heavy rains in southern California.

The low ratio of birds found dead to those found alive was unusual, but it probably was due to the proximity of the affected birds to the beaches and to the tendency of grebes to haul out quickly when oiled. Survival rate of the grebes that went through the rehabilitation process was low (20%). Grebes often have very low survival rates during oil spills. Veterinarians observed many unusual symptoms in the grebes and have been investigating what might have been responsible. A preliminary summary problems with grebes includes altered neurological responses, edema (swelling from excess fluid) in the head, neck, and legs, and cloacal distention (swollen bellies). So far no PCBs, organochlorines, or toxic metals have been detected. Pathological investigations are still underway.

GREENPEACE CONVICTED OF VIOLATING OIL SPILL CONTINGENCY PLAN REQUIREMENTS

Greenpeace has been convicted of violating an Alaska law that requires operators of large non-tanker vessels entering state waters to demonstrate that they can respond to oil spills. A jury in Ketchikan convicted Greenpeace and one of its marine captains, Arne Sorensen, of violating a 2003 state law that requires operators of large non-tanker ships to have oil-spill contingency plans, as well as documents showing proof of ability to pay for a spill response. The requirements are similar to those for oil tankers. Greenpeace could face a fine of up to $200,000 per count, and Sorensen could face a penalty of $10,000 and a year in jail for each count. It was the first criminal prosecution under the law, and the first trial stemming from such a charge. Greenpeace complained that it had been singled out for criminal prosecution because 22 other vessels had had similar violations and have not been prosecuted. The Alaska attorney general responded that the Arctic Sunrise failed to stay anchored when initially contacted by the Alaska Department of Environmental Conservation and instead fled the area. In addition, the same vessel and captain were involved in a prior conviction for trespassing onto a barge being operated by an oil company.

CANADA STRENGTHENS MIGRATORY BIRDS CONVENTION ACT

A bill to amend the Migratory Birds Convention Act and the Canadian Environmental Protection Act was adopted in May, over the opposition of the shipping industry. The legislation was supported by all parties in the House of Commons and establishes prohibitions against the dumping of oil throughout Canada's 200 nautical mile Exclusive Economic Zone. It provides for serious penalties against those who violate the Act. In addition, it establishes strong enforcement powers for Environment Canada officers, including authority to redirect ships to Cana-

dian ports for inspection. The amendments also focus the purpose of the Migratory Bird Convention Act on sustainability of bird populations as well as the protection of individual birds. This reflects an important modernization of the act and will allow for improved conservation actions throughout Canada.

GULLS BLAMED FOR WATER POLLUTION AT SOME CALIFORNIA BEACHES

Heal the Bay, a Santa Monica organization, annually rates 450 coastal beaches in California for public health safety based on water pollution levels. Among the top ten of the state's most polluted beaches are Campbell Cove State Beach at Bodega Bay in Sonoma County and Baby's Beach in San Diego County. Both show high, short-lived spikes of contamination. Water sampling indicates that there are seasonal spikes of coliform bacteria levels in both sand and water that can exceed the state health standard by a factor of ten. DNA testing to identify the source of the bacteria was carried out in 2004 by the Bodega Marine Laboratory, the North Coast Regional Water Quality Control Board, and the California Department of Parks and Recreation. Results showed that the coliform comes from birds, seals and sea lions. Coliform bacteria from humans can cause disease in other humans, but the risk to people from animal coliform is not known. Gulls are the primary source of the bacteria at Campbell's Beach, where they are attracted by nearby fresh water. At Baby's Beach, public health officials are trying to dilute coliform levels by improving water circulation. Six experimental oloids—slow-moving devices with rotating paddles—have been installed in the ocean outside the swimming area to reduce the levels of coliform.

NEW PEER REVIEW GUIDELINES FINALIZED

Science used by the U.S. Fish and Wildlife Service and other federal agencies to support major rules is subject to review by non-governmental experts for the first time. While research by EPA, the Army Corps of Engineers and other agencies has frequently been subject to outside review in the past, "peer review" guidelines issued by the Office of Management and Budget are aimed at formalizing this process. Supporters of the guidelines say they will help ensure that federal policy is shaped by sound scientific practices. Critics claim the guidelines are an effort to seize control of the release of scientific information and slow the federal regulatory process.

The guidelines separate scientific information that merits peer review into two types. The first type is "highly influential scientific information, " science supporting rules or policies costing the economy more than $500 million in any year. This type of data will require federal agencies to appoint an independent peer-review panel. The second type of science affected by the guidelines is "influential scientific information," such as risk assessments, environmental and natural resources computer modeling, data, and other technical analyses. Agencies can subject the second type of scientific information to the same rigorous peer review as highly influential science, but they have the option of peer review by a small group of experts in one environmental or natural resources discipline. The guidelines direct agencies to choose a peer review mechanism that is adequate based on a variety of factors, including whether the science is new, the extent of prior peer reviews, and the expected costs and benefits that will result from its use. More rigorous peer review is necessary for information that is based on novel methods or that presents complex challenges for interpretation. Science already reviewed by the National Academy of Sciences is not subject to the peer review guidelines.

SURVEY REVEALS PERVASIVE POLITICAL INTERVENTION IN FEDERAL ENVIRONMENTAL AGENCIES

Two non-governmental organizations, the Union of Concerned Scientists (UCS) and Public Employees for Environmental Responsibility, have asked scientists in government agencies about political interference in their decisions. Half of scientists who responded from the U.S. Fish and Wildlife Service and a quarter of the respondents from NOAA-Fisheries said that they had been ordered to water down their recommendations for protection of wildlife species. More than half of respondents were aware of cases in which scientists had been directed to change their findings for non-scientific reasons, due to pressure from commercial interests, politically-appointed agency administrators, or Congress. Two-thirds or more of the scientists doubted that species and ecosystems were being protected adequately by their agencies. Not surprisingly, 40% to 50% said that morale among their colleagues was poor.

The survey was sent to 1,410 scientists and scientist-managers were at NOAA-Fisheries and 464 at USFWS. The response rates were 29.7% and 26.7% respectively, even though USFWS ordered its employees not to respond, even on their own time.

Further information is at the UCS website, www.ucsusa.org

MINNESOTA WILDLIFE OFFICIALS TO KILL 4000 CORMORANTS

Cormorants on Leech Lake, Minnesota have increased from 150 birds seven years ago to 10,000 today, even though about 2,200 have been shot and killed in the interim. Prodded by resort owners and fishing guides, state wildlife officials have decided to kill 4000 or more of the birds this summer, and may also apply oil to the birds' eggs to prevent them from hatching. Leech Lake has an area of 44,500 ha and is one of the Minnesota's premier recreation lakes, but it is experiencing a decline in fishing for walleye (*Stizostedion vitreum*). A local business association found that reservations at Leech Lake resorts in May 2005 were down 90% from 2004, thus hurting the livelihoods of many people. The area fisheries supervisor for the Minnesota Department of Natural Resources is uncomfortable with the decision, but believes there is enough science to justify it and is seeking a balance between preservation and management. Some wildlife biologists and animal-rights groups oppose the plan, saying that research on the bird and its eating habits is incomplete.

ERRATA

In the report entitled "Wake Atoll Apparently Cat-Free" (*Pacific Seabirds* 31:50, 2004) we reported that a salvaged bird specimen from Wake Island was identified as a Fluttering Shearwater (*Puffinus gravia*) from New Zealand. DNA analysis later proved it to be a Wedge-tailed Shearwater (*Puffinus pacificus*). Wake Island apparently still remains cat-free.

OBITUARY

MARK OWEN PIERSON (1947–2005)

Kenneth T. Briggs and **Ellen W. Chu**

Mark Owen Pierson, longtime PSG member and Southern California Regional Representative since 2003, died on April 15, 2005. He was 58.

Mark started attending PSG's annual meetings in the 1970s, and he did his share of heavy lifting with the local committee for the Santa Barbara meeting in 2002. He was always a dogged and effective facilitator for the aspirations of many PSG researchers. Though he began his professional life as a marine mammalogist, Mark was fascinated by all things aerial, and he became an important member of teams engaged in bird research on California colony islands and in bird population assessments in the California Current. He was adept at aerial and colony surveys of birds and contributed greatly to a monograph on California seabird distribution. With a number of PSG researchers—all of whom came to be close friends as well as colleagues—he served on field crews; encouraged his employer, the US Minerals Management Service (MMS), to support seabird work; and continued to expand what we know about the distribution of seabirds and marine mammals of the Southern California Bight.

Mark was born on February 8, 1947, in Robbinsdale, Minn., to career Air Force Master Sergeant Marshall Owen Pierson and Mary A. Dornak. He spent his childhood moving from base to base, including to Margate, England. After graduating from high school in Alexandria, Louisiana, he attended Louisiana State and Texas A & M Universities and, as a freshman, majored in aerospace engineering. As a sophomore, he transferred to the University of Montana, where bear biologists John and Frank Craighead sparked in him a lifelong interest in wildlife. After earning his bachelor's degree in zoology in 1969, he went to the University of California, Santa Cruz (UCSC), for graduate study with renowned pinniped researcher Richard S. Peterson. But Dr. Peterson died unexpectedly, and, with the Vietnam-era draft looming, Mark enlisted in the US Army. Always an outstanding student, he attended Russian-language school in Washington, DC, and, after further training in cryptography, was assigned to European listening posts, where his skills were applied to cold war intelligence operations.

In 1973, Mark returned to UCSC and resumed graduate work with Burney J. LeBoeuf, then a professor of psychology and later an expert on elephant seals. From studying sea otters and elephant seals, Mark narrowed his focus to fur seals—in particular, the population dynamics and breeding behavior of the Guadalupe fur seal *Arctocephalus townsendi*—and ultimately completed his doctorate in 1978. His research on pinnipeds spanned the following two decades and included stints in Mexico, California, the Pacific Northwest, and the Commander Islands, where his international colleagues appreciated his Russian almost as much his research skills. From 1975 through 1987, Mark also involved himself in seabird conservation and research during a series of federally funded studies at UCSC.

In 1988 Mark joined the US Minerals Management Service (MMS), where he was the point-man for the agency's seabird and marine mammal field research in southern and central California. He also contributed to studies on shorebird and intertidal communities and on the impact of underwater noise on marine mammals in areas of offshore oil and other activity. From 1995 through 2002, Mark participated many times in aerial offshore seabird surveys involving researchers from UCSC, MMS, and the California Department of Fish and Game; he loved the flying, and he loved the work.

Mark Pierson truly lived his life to the fullest. From the time he first could read, he read everything—his favorites more than once. His interests spanned the library's card catalogue: from highbrow British fiction and history, to Sue Grafton and Tony Hillerman mysteries, to massive tomes on the Civil War, to the poetry of Wendell Berry, to the film reviews of Pauline Kael. As a film viewer, he didn't just watch movies, he remembered them—every character, every plot line, every actor. Indeed, he remembered most things: Need a fact or a name or a really good book? Just ask Mark.

But even with all that reading, Mark was not exactly a couch potato. First with his friends, and later with his wife Cathie Dunkel, he rafted wild western rivers named Salmon, Trinity, and Green; he backpacked the high country during 30 summers, and he climbed more than one of the 13,000- and 14,000-foot peaks of the Sierra Nevada. In the 1990s Mark gave up 35-mile-per-week running for cycling and swimming. A hip-replacement surgery in 2002 slowed him barely at all. It was in June 2004, while hiking high in the southern Sierra, that Mark first experienced symptoms from what turned out to be a malignant brain tumor. Scarcely a week later, he had his first brain surgery, and throughout the next 10

months, he and Cathie braved more surgery, radiation, chemotherapy, and a clinical trial for a new immunotherapy treatment. Hopefully, optimistically, they learned to live life in a new way.

Mark Pierson was one of the good folks who was taken home too soon. He dedicated his professional life to research on, and conservation of, the marine mammal and seabird populations of the Eastern and North Pacific Oceans. He was a trustworthy and stand-up person, and a great friend in the field—when the weather got just too bad, the surf just too high, or the outboard motor just plain broke. He worked the front lines of research quietly but with great joy; he worked the federal research supply lines aggressively, and with great effectiveness. Mark Pierson was a loyal friend to a whole generation of seabird researchers, a dedicated and talented biologist, and a steadfast supporter of PSG.

He was also our very best friend, and we will miss him beyond words.

PSG MEETINGS

THIRTY-SECOND ANNUAL MEETING OF THE PACIFIC SEABIRD GROUP
Portland, Oregon, January 2005

Robert H. Day, Chair-Elect for 2004

The 32nd Annual Meeting of the Pacific Seabird Group (PSG) was held jointly with the 27th Annual Meeting of the Waterbird Society (WS) at the Portland Hilton in Portland, Oregon, on 19-23 January 2005. Registered attendance was 385, including 111 students. The meeting was co-chaired by Betty Anne Schreiber (WS) and Daniel Roby (PSG). The Local Committee included Katie O'Reilly (Chair), Kim Nelson, Jane Toliver, Maura Naughton, Adrian Gall, and Jessica Adkins. The Co-Chairs of the Scientific Program were Francesca Cuthbert (WS) and Robert Day (PSG). The Scientific Program included 190 oral presentations and 86 posters; authors of papers represented 23 countries. There were so many papers that we held three concurrent paper sessions and sometimes added a fourth. The poster sessions were held on Thursday and Friday evenings, in conjunction with receptions.

We held two Symposia: "Biology and conservation of the Xantus's Murrelet" (Co-Chairs Harry Carter and Esther Burkett) and "Island restoration and enhancement: successes, failures, and tools for the 21st Century" (Co-Chairs Mark Rauzon and Bradford Keitt). The Symposium on Xantus's Murrelets will be published. We held three Special Paper Sessions: "Advances in seabird and waterbird ecology from stable-isotope studies" (Chair Keith Hobson), "Beached-bird surveys: lessons to learn—past, present, and future" (Co-Chairs Rebecca Harris, Scott Newman, and Florina Tseng), and "Status and trends of the Marbled Murrelet range-wide" (Chair Kim Nelson). The paper session on beached-bird surveys will be published.

We were fortunate to have three Plenary Lectures at this meeting, one on each morning. Susan Haig of Oregon State University presented "Use of molecular markers in waterbird research and conservation." Spencer Sealy of the University of Manitoba presented "Auklets to murrelets: early discoveries and speculations." Finally, Mark Rauzon of Marine Endeavors and Bradford Keitt of Island Conservation presented "Island restoration and enhancement: successes, failures, and tools for the 21st Century"; we particularly thank them for preparing such an interesting talk at short notice. In addition, a special workshop was held on "The identification of forage fishes in bill loads" under David Craig of Willamette University.

Several PSG committees conducted business during this meeting: the Executive Council (Chair Daniel Roby), Conservation Committee (Vice-Chair for Conservation Craig Harrison), Marbled Murrelet Technical Committee (Coordinator Anne Harfenist), Xantus's Murrelet Technical Committee (Coordinator Gerard McChesney), Seabird Monitoring Committee (Coordinator Scott Hatch), and the Japan Seabird Conservation Committee (Coordinators Koji Ono and John Fries). Shiway Wang of PSG also led a lunchtime meeting of students from both societies. In addition, George Divoky chaired a meeting of the past chairs, who will provide nominations to the Awards Committee in the future for Lifetime Achievement Awards and Special Achievement Awards.

PSG provided Student Travel Awards to BriAnne Addison (Simon Fraser University), Andre Breton (University of New Brunswick), Thomas Dempsey (University of Alaska), Shoshanah Jacobs (University of Ottawa), Who-Seung Lee (Kyung Hee University, Korea), Heather Major (Memorial University of Newfoundland), Josh Malt (Simon Fraser University), Katie Murra (University of Alaska), Mike Shultz (University of Alaska), Mark Westbrock (Wake Forest University), and Heather Wilson (University of Alaska). PSG also provided Travel Awards to two other participants from outside the U.S. and Canada: Giannina Cadena-Lopez of Colombia and Yuri Albores Barajos of México. The WS provided Student Travel Awards to Joseph Allen (North Dakota State University), Catherine Devlin (University of New Brunswick), Patricia de Jesus Faria (Universidade de São Paulo), Catherine Haffner (University of Minnesota), James Kenyon (Simon Fraser University), Terri Maness (Wake Forest University), Vanessa Pompeii (University of Minnesota), and Matthew Sexson (Fort Hays State University).

The Best Student Paper Awards were given to Andre Breton of the University of New Brunswick for "Encounter, survival, and movement probabilities from an Atlantic Puffin metapopulation," and to Shoshanah Jacobs of the University of Ottawa for the paper "When your parents are a drag: increasing the cost of diving in Thick-billed Murres." The Best Student Poster Awards were given to Lisa Ferguson of Clemson University for the paper "Effect of ectoparasites on corticosterone levels of Brown Pelican nestlings" and to Mark Westbrock of Wake Forest University for the paper "Overproduction of daughters by mothers in poor condition in Galapagos Nazca Boo-

bies: adaptation or constraint?" At the Banquet on Saturday evening, the PSG presented Spencer G. Sealy of the University of Manitoba with the Lifetime Achievement Award for his pioneering research on Pacific alcids; the tribute was delivered by Harry Carter, Percy Hébert, and Keith Hobson.

Shiway Wang, Student Representative for PSG, organized a Silent Auction with the help of Betty Anne Schreiber of WS. Local artists Ram Papish (who provided the beautiful cover artwork for the meeting program) and Jon Janosik exhibited and sold art work. Thanks to everybody's efforts, we raised slightly over $4000, which will be split between the two societies.

Field trips included an Oregon Coast birding trip and a Willamette Valley wine-tasting tour. Unfortunately, the pelagic-birding field trip was cancelled because of high seas off the coast.

The Local Committee did an outstanding job of organizing and running the meeting, and the Portland Hilton provided great support, especially with respect to the complicated audiovisual arrangements for up to four concurrent sessions. In addition, many participants commented on the high quality and number of papers, symposia, special paper sessions, and plenary lectures.

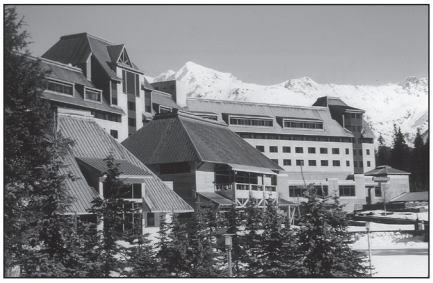
2006 MEETING OF PACIFIC SEABIRD GROUP TO BE HELD IN ALASKA
Alyeska Resort, Girdwood, 15-19 February

The thirty-third Annual Meeting of the Pacific Seabird Group will be held at the Alyeska Resort in Girdwood, near Anchorage, Alaska, on 15-19 February 2006. This will be the first PSG meeting in Alaska. The Scientific Committee is planning speakers and paper sessions with special relevance to northern seabirds (other papers on the Pacific region are also welcome). The Alyeska Resort is a premier location for winter sports, and nearby places offer winter birding and other attractions.

Symposia and Special Paper Sessions are being arranged on marine birds as indicators of the marine ecosystem, planktivorous alcids, fisheries-seabird interactions, and what chemical analyses can tell us about seabirds. Plenary speakers will include Vernon Byrd (Supervisory Biologist at the Alaska Maritime National Wildlife Refuge) and Aevar Peterson (Icelandic Institute of Natural History). Papers and posters on all marine bird subjects are welcome, as always.

MEETINGS

Cross-country ski trails near the Alyeska Resort
Previous page: View of Turnagain Arm near Girdwood



Alyeska Resort

The Alyeska Resort is a first-class hotel about 45 minutes from the Ted Stevens Anchorage International Airport. The hotel has excellent meeting facilities and dining. It is located in a beautiful valley within the Chugach Mountains, in the former mining village of Girdwood. A world-class downhill ski area is immediately behind the hotel. Other winter sports within walking distance include cross-country skiing, snowshoeing, ice skating, and dog sled rides. Equipment for the first three can be rented locally, and sled rides for PSG members have already been arranged.

PSG's Lifetime Achievement Award will be presented to Vernon Byrd at the annual banquet, and the Special Achievement Award will be given to Mark Rauzon. Other highlights of the meeting will include a dance performance by the King Island Dancers and Singers, an Inupiat Eskimo group whose traditional dances depict legends and hunting. Local book sellers and artists will offer items for sale, and there will be a silent auction to benefit PSG.

Wintering seabirds and sea ducks can be seen on the pelagic field trip from Seward on Sunday, 19 February. Participants will take a vessel onto Resurrection Bay, near the coast of Kenai Fjords National Park, and also will visit the SeaLife Center, a research lab and aquarium with a good seabird display. Some forest birds can be seen on walks near the hotel, although admittedly their diversity will not be as high as in Hawai'i or Baja California. With luck, you may even see the Northern Lights (the hotel will call you if you wish, IF they appear).

Other activities are available within an hour of Girdwood. The drive between Anchorage and Girdwood takes you through splendid scenery along a tidal fjord. In Anchorage itself, the annual Fur Rendezvous festival will be underway, with everything from fireworks and carnival rides to a fur auction and the World Championship Sled Dog race. Also in the city are the Anchorage Museum of History and Art, the Alaska Native Heritage Center, a national parks visitor center, a zoo with many northern species, and other attractions.

Several airlines serve Anchorage. Alaska Airlines has a number of flights daily from Seattle and several from the eastern U.S. The airline is offering a 10% discount to anyone travelling to the PSG meeting, including families. If you have considered spending a little extra time in southcentral Alaska, this would be a good opportunity!

Information and registration forms for the 2006 Annual Meeting will be posted on the PSG web site (www.pacificseabirdgroup.org) in September. The Scientific Program Chair is Katie O'Reilly, at oreilly@up.edu or (503) 943-7146; the Local Committee Chair is Verena Gill, at Verena_Gill@fws.gov or (907) 786-3584. For information on the SeaLife Center, see www.alaskasealife.org; for the pelagic trip, see alaskaheritagetours.com For further information on the Alyeska Resort, the city of Anchorage, and recreation opportunities, visit: www.alaska.org/girdwood; www.girdwoodalaska.com; www.alyeskaresort.com; www.alaska.org/anchorage; www.furrondy.net; www.travelalaska.com; and www.alaskatours.com/winter/alaska_winter_tours.htm

Old main street of Girdwood

Alpine ski slopes at Alyeska. (Photos by V. Mendenhall)

PSG NEWS

PSG ELECTIONS: REGIONAL REPS WILL HELP

The results of the 2004 elections for Executive Council members are as follows:

- **Chair-elect:** Katie O'Reilly
- **Vice Chair for Conservation**: Craig Harrison
- **Treasurer:** Ron Le Valley

Regional representatives

- **Canada:** Ken Morgan
- **Southern California:** Dan Robinette
- **Non-Pacific U.S.:** Melanie Steinkamp
- **Oregon-Washington:** Adrian Gall

Nominations are now needed for the 2005 election. Positions up for grabs are Chair-elect, Secretary, and the regional representatives for Alaska and Russia, Northern California, Hawai'i and Pacific Rim, Old World, and Student Representative.

Pat Baird, Chair of the Election Committee, has made a plea for help with nominations. Regional Representatives especially are asked to find people in their regions who are willing to run. Anyone who is interested in serving on the Executive Council should contact Pat Baird (patbaird@csulb.edu) Most people who have been on the Exco say it's an eye-opening and rewarding experience; not to mention enjoyable—what's better than laughing with friends while you're doing serious work?

It is essential that nominations for the Exco reach Pat by early fall. In 2004, it was late November before she secured at least *one* nomination per slot. This could have jeopardized the election! Ballots were delayed by the Christmas mail, and they were still being returned in mid-January. But the election must be completed before the Annual Meeting, which started on 19 January this year.

EXCO HOLDS FIRST REGULAR MID-YEAR MEETING

PSG's Executive Council has always convened once a year, at the Annual Meeting. However, a single Exco meeting each year has become insufficient for conducting PSG affairs. At the January 2005 meeting, the Exco voted to hold a second meeting each year in July, August, or September. The agenda would include time-sensitive matters that cannot wait until the next Annual Meeting, items left unresolved at the Annual Meeting, and (as time allows) new items that are not time-sensitive. Meetings will be held by telephone conference call. This has been done occasionally in the past when a special issue required it.

The Exco's first regular mid-year meeting was held on 13 July 2005.

PSG MEETINGS PLANNED FOR 2007AND THE FUTURE

The 2007 meeting will be held at the Asilomar Conference Center, Pacific Grove, California, on 7-11 February 2007. The Local Committee Chair is Jim Harvey.

Sites for future PSG Annual Meetings were proposed to the Executive Council at their January meeting. The 2008 meeting had been proposed for Hawaii, in conjunction with a World Seabird Conference, but this plan was reconsidered because some felt it would be too expensive. A suggestion was made to have this meeting in autumn of 2007 in Barcelona, along with the Waterbird Society and Mediterranean seabird groups. The Exco decided that PSG will consider some sort of involvement in the Barcelona meeting, but that we will hold our regular annual meeting elsewhere in early 2008, possibly in Arcata, California.

In the more distant future, possible meeting sites include Victoria, British Columbia (2009), somewhere in México (2010), and Hawaii (2011).

PACIFIC SEABIRDS TO BE AVAILABLE THE WEB

Past issues of *Pacific Seabirds* will be posted in the future on PSG's web site (http://www.pacificseabirdgroup.org). They will be in PDF format. Future issues will be added at the time they are published.

Once the new *Pacific Seabirds* Web page is available, PSG will seek input from each member whether he or she prefers to receive *Pacific Seabirds* in the mail, as in the past, or would rather read it on the Web. Details for collecting this information are still being worked out. Any member will continue to receive *Pacific Seabirds* by mail if he or she wishes. Alternatively, each member can opt to "receive" the journal online instead, which some prefer. This would save money for PSG (and some trees for the forest).

Marine Ornithology already is available on the Internet (www.marineornithology.org).

NEW PROCEDURE FOR ACHIEVEMENT AWARD NOMINATIONS

At many of its annual banquets, PSG gives a Lifetime Achievement Award or a Special Achievement Award to a seabird biologist of special distinction. In the past, nominations for these two

awards have been submitted to the Awards Committee (Past Chair, current Chair, and Chair-elect). However, the current Chairs are very busy, so a three-step process has been created for nominations. A group consisting of all past chairs met at the 2005 Annual Meeting and decided to assist the Awards Committee.

The past chairs will now receive all nominations for achievement awards. Any PSG member may submit a nomination to one of these people. (This includes the immediate Past Chair, who is on the Executive Council, but also all previous PSG Chairs who are still active in PSG.)

The past chairs' group will screen nominations, including their own. They will recommend a recipient for each award to the Awards Committee. That group will pass the names to the Exco, which will vote on final approval of nominees at their midsummer meeting.

PSG DUES TO RISE IN 2006

PSG's membership dues for 2006 will rise to $30 for regular members, $20 for students, and $900 for life memberships.

The increase was approved at the Executive Council's meeting in January 2004. Although cost-saving measures also were approved, the increase is necessary to help pay for PSG's publications and other work.

NEW LOON/GREBE COMMITTEE FORMED

A new PSG committee has been formed, the Loon/Grebe Technical Committee. Dan Anderson is the coordinator. He is currently formulating the committee's orientation, mandate, and tasks. Anyone who is interested in these taxa or is concerned about their conservation is invited to join the committee.

NEW COMMITTEE COORDINATORS APPOINTED

Two PSG committees have new coordinators. The Xantus's Murrelet Technical Committee will be headed by Bradford Keitt and Shaye Wolf. They are taking over from the past year's coordinator, Gerry McChesney. Danielle Escene is the new coordinator of the Marbled Murrelet Technical Committee, replacing Anne Harfenist. PSG welcomes the new coordinators, and thanks the previous ones for their hard work.

Contact information for committee coordinators is near the back of each *Pacific Seabirds* issue.

DAN ANDERSON HONORED FOR CONTAMINANT WORK

The Society of Environmental Toxicology anad Chemistry has presented Daniel W. Anderson with its Rachel Carson Award for advancing public awareness of contaminants in the environment. He was honored for his decades of research on the ecological effects of pesticides and other toxic substances on the birds, coast, and wetlands of California, Baja California, and other countries. He also has been a leader in teaching and directing graduate students in the field of ecotoxicology.

Dan also has contributed greatly to PSG throughout its life, most recently by starting a new committee for conservation of loons and grebes. Congratulations, Dan!

SEABIRD NEWS

WIDESPREAD BREEDING FAILURES AND DIEOFFS OF SEABIRDS IN THE NORTHEAST PACIFIC

Seabirds from British Columbia to California experienced severe breeding failures in 2005, and large numbers of dead birds have washed up on beaches. The event appears linked to warm ocean temperatures and low primary productivity, according to biologists and oceanographers. The phenomenon was unexpected—the lack of cold upwelling and northwesterly winds resembled El Niño conditions, but there was no El Niño this year. This article was assembled from personal communications and listserve postings for Alaska, and from published news sources for other areas.

Many seabirds initiated breeding late in the spring of 2005 and abandoned their colonies; others did not breed at all. Few Pelagic Cormorants (*Phalacrocorax pelagicus*) nested on the Farallon Islands, California, and Brandt's Cormorant (*P. penicillatus*) numbers were reduced. Cassin's Auklets (*Ptychoramphus aleuticus*) started late and then abandoned their nests. Bill Sydeman has "never seen anything like it" in three decades of monitoring on the Farallones (Martin 2005). Common Murres (*Uria aalge*) in Oregon raised few young; Caspian Terns (*Sterna caspia*) and Double-crested Cormorants (*P. auritis*) nested in colony at the mouth of the Columbia River, but in reduced numbers; and unusually low numbers of Marbled Murrelets (*Brachyramphus marmoratus*) were detected at nesting areas in the Coast Range of Oregon (Milstein 2005). Murres on Tatoosh Island, Washington nested later than Julia Parrish has recorded in 15 previous years of monitoring, and those that nested were unsuccessful (Stanton 2005). Most Cassin's Auklets on Triangle Island, British Columbia laid no eggs, and nests that were started mostly failed; other species also were affected (Hume 2005).

Large numbers of emaciated dead birds were found on beaches from California to Washington. Dead Brandt's Cormorants were reported by COASST survey teams in Washington at a frequency of approximately 0.5 per km, compared with a typical rate of about 0.02 per km (Stanton 2005). There were 181 dead adult murres on a 4.6-mile beach near Newport, Oregon, the highest July count in 28 years of monitoring (Milstein 2005).

Ocean temperatures near the Pacific Coast of North America were abnormally high during spring and early summer 2005. In late June the water was 6° C above normal near Newport, Oregon, according to Bill Peterson of NOAA-Fisheries (Martin 2005). Northwest winds along the Pacific Coast of North America normally create cold upwellings, enriching nearshore waters and supporting a rich food web. But this year a warm winter was followed by a cool, wet spring and southwest winds, which resulted in no upwelling and low plankton production. Northwest winds finally returned in mid-July, creating upwelling and a late plankton bloom (Chea 2005).

Interestingly, seabird productivity was good this year on the Queen Charlotte Islands, according to Hipfner. That part of the British Columbia coast is north of the California Current system and seems to have been under a different influence (Hume 2005).

The summer's seabird data for Alaska have not yet been compiled, but so far it appears that birds did not fail completely in any area of the state (Vernon Byrd, U.S. Fish and Wildlife Service, pers. comm.). Black-legged Kittiwakes (*Rissa tridactyla*) in Prince William Sound had low productivity overall, but a few colonies did well (David Irons, U.S. Fish and Wildlife Service, pers. comm.). There also have been scattered dieoffs, although no indication of a widespread one. More than 50 adult Common Murres washed up on a beach near Nome in July, which local elders had never seen before (S.K. Nelson, Oregon State University; on PSG Listserve, 29 August). Dead Short-tailed Shearwaters (*Puffinus tenuirostris*) and Northern Fulmars (*Fulmarus glacialis*) were found on the north shore of the lower Alaska Peninsula in early August in much higher numbers than normal (Kristine Sowl, U.S. Fish and Wildlife Service, pers. comm.). `Sea surface temperatures in the Bering Sea and Gulf of Alaska were 2 to 5 degrees above normal (John Piatt, U.S. Geological Survey; on PSG listserve, 17 Aug). In contrast, weather on the Beaufort Sea was cool and seabirds bred relatively well there (George Divoky, University of Alaska Fairbanks; on PSG listserve, 26 Aug).

A seabird dieoff also was reported on the Atlantic coast from Maryland to Florida, including Great Shearwaters (*Puffinus gravis*) and Wilson's Storm-Petrels (*Oceanites oceanicus*). Some apparently were malnourished (Marshall 2005).

Reasons for this year's oceanographic anomalies are not yet clear. Although the world's oceans are getting warmer, along with the rest of the earth, oceanographers are unsure of the degree to which global warming may have influenced this event. Natural variability in ocean temperatures undoubtedly had a major role. Some have suggested that global warming may have been unimportant in this case; spring upwellings have failed in other years when there was no El Niño, even as long ago as the 1960s, according to Nathan Mantua of the University of Washington (Henry 2005). On the other hand, a warming trend began

three years ago in the northeast Pacific, and it could have exacerbated a warm event caused by other factors (Martin 2005, Stanton 2005). Hopefully some insights will emerge as data are synthesized over the next months.

Seabird scientists also are looking forward to analyzing this year's events. A group of researchers is collecting reports on the 2005 breeding failures and dieoffs and will prepare a paper on them. Please send observations for the following areas to:

- Atlantic U.S. and Canada: John Piatt (john_piattt@usgs.gov)
- Southern California and the Pacific: Lisa Ballance (Lisa.Ballance@noaa.gov)
- Northern CaliforNia: Bill Sydeman (wjsydeman@prbo.org)
- Oregon: Dan Roby (robyd@ucs.orst.edu)
- Washington: Julia Parrish (jparrish@u.washington.edu)
- British Columbia: Mark Hipfner (mark.hipfner@ec.gc.ca)
- Alaska: David Irons (David_Irons@fws.gov) or Vernon Byrd (Vernon_Byrd@fws.gov)

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—Vivian Mendenhall

FOUR GENERATIONS OF "IRON PELICANS"

Those who attended PSG's Annual Meeting in La Paz in January 2004 were attracted to a beautiful wrought-iron pelican for sale in the silent auction. This pelican was created by eminent wildlife ecologist Tony Peterle, who donated it to the PSG Brown Pelican Symposium. Tony was Chair of the Zoology Department at Ohio State University for many years. Late in his career, he was awarded the Aldo Leopold Medal by the Wildlife Society in recognition of his many scientific achievements and his service to the society. Since retirement, Tony has become quite an artisan, creating many different kinds of wonderful art in his home workshop near Columbus, Ohio. He has become quite well known around the Midwest in his new avocation, and this pelican design is one of his best creations.

So this PSG iron Brown Pelican, by design—and thanks to continuous bidding by friends—eventually ended up in the hands of Eduardo Palacios at the banquet. Eduardo was Chair of the Local Organizing Committee in 2004. By virtue of Eduardo's possession, persons from a four-generation academic lineage (the "Iron Pelicans") now possess one or more of these statues standing proudly somewhere at their residences. The source-flock, of course, resides near Columbus, Ohio. The first-fledged individual resides in Centennial, Colorado; the second-fledged is in Davis, California; and the third fledgling now resides in La Paz, Baja California, México.

Why four generations? Well, Tony, who started it all, represents the parent generation of the Iron Pelicans. He was one among a group of truly pioneering wildlife ecologists (that's what they were called then) from the Midwest, walking tall among the likes of Joseph Hickey, Durward Allen, Thomas Scott, and others. Then Jim Keith completed his PhD at Ohio State under Tony's supervision—the second generation of Iron Pelicans. Generation three? That's the one represented by Dan Anderson's statue in Davis; he was mentored by Joe Hickey, Tony Peterle, *and* Jim Keith. Now there is a fourth generation: Eduardo, who recently finished his PhD degree at the University of California at Davis with Dan.

Well, Eduardo, the torch has been passed! Help continue this lineage among seabird biologists.

—Dan Anderson and **Jim Keith**

CHAIR'S "STATE OF PSG" REPORT for 2004

REPORT TO THE PACIFIC SEABIRD EXECUTIVE COUNCIL
Portland, Oregon, January 19, 2005
Dan Roby, PSG Chair for 2004

In January 2004, PSG held a very successful meeting in La Paz, Baja California Sur, México. Its success meeting was due largely to a hardworking and dedicated Local Committee, led by Eduardo Palacios. The meeting attracted a total of 161 paid registrants. Highlights included invited plenary lectures by George L. Hunt, Jr. (who also received PSG's Lifetime Achievement Award), Sarah Wanless, and Exequiel Ezcurra. There were symposia on The Brown Pelican in North America (convened by Dan Anderson), and on Advances and Applications of Ornithological Radar in Seabird Studies (co-convened by Brian Cooper and Bob Day), and a special paper session on Pacific Coast Cormorants: Status and Trends. The La Paz meeting realized a profit for PSG of $6,298. Of this sum, $1,000 was used to assist two Latin American seabird biologists to attend the PSG annual meeting in Portland, which they would not have been able to do otherwise. Giannina Cadena of Colombia and Yuri Albores of México each received $500. The PSG Awards Committee recommended the awards and the Exco concurred. The remaining profits from the La Paz meeting were added to the PSG general fund.

The PSG Conservation Committee and its leader Craig Harrison, Vice-Chair for Conservation, had a busy year in 2004. PSG has been involved in over 10 high-profile issues affecting seabirds in the Pacific. These included listing of the Xantus's Murrelet as threatened in the state of California; opposition to a major new Liquid Natural Gas plant slated for construction by ChevronTexaco in the Islas Los Coronados, Baja California Nord, México; and a new ruling by the U.S. Fish and Wildlife Service that denies Lower 48 population of Marbled Murrelets any status as a distinct population segment status, which potentially could lead to de-listing as a threatened species. Thanks to Craig for staying current on so many issues, and for rapidly producing carefully crafted letters from PSG as each issue arose.

PSG's Editor, Vivian Mendenhall, published two issues of *Pacific Seabirds* during 2004 (30[]) and 31[1]), and a third issue (31[2]) was mailed out in late January 2005. During the past year, PSG has relied on its website to disseminate abstracts of papers presented at its Annual Meeting, instead of publishing the full abstracts in *Pacific Seabirds*. This saved $2,400 in publishing costs for *Pacific Seabirds*, in comparison with previous volumes. Once again, Vivian has done a highly commendable job of keeping issues of *Pacific Seabirds* professionally edited, and on schedule [*sic*]. *Marine Ornithology*, under the able leadership of Editor-in-Chief Tony Gaston, continues successfully to transition toward an international web-based, peer-reviewed scientific journal, while maintaining over 100 institutional and individual subscriptions in 15 countries throughout the world. Scott Hatch recently took over as Editor for North America and the North Pacific Region, allowing Tony to focus on the challenging assignment of Managing Editor. Thanks to Tony's careful management and *pro bono* editorship of *Marine Ornithology*, the journal has remained in the black, and without charging PSG the maximum amount we have approved to support it ($6,000 per year).

The Publications Committee, led by Coordinator Pat Jodice, has embarked on a worthwhile project to post PDFs of PSG publications on our web site, including back issues of *Pacific Seabirds*, PSG symposia, and technical reports. Many of these are otherwise difficult to obtain. The PSG website continued to be very efficiently and skillfully managed by webmaster Lisa Ballance, with technical assistance from Robert Holland. The website continues to expand and provide detailed and timely information to members on PSG's activities, news, and annual meetings. This service is becoming increasingly critical to our organization, and we all owe a debt of gratitude to Lisa and Robert for their continuing willingness to manage PSG's website.

PSG now has a listserve that allows members to post notices, share news items, and make inquiries of other PSG members. Many thanks to Verena Gill, our Regional Representative for Alaska/Russia, for taking on this (sometimes difficult!) task. The listserve provides a rapid and efficient means of communicating with many individuals who work on Pacific seabirds.

PSG has been fortunate this year to have a very active and energetic Student Representative to the Executive Council, Shiway Wang. Shiway has led the effort to create a new Student Directory for PSG, gathered information for a report in *Pacific Seabirds* on milestones for student members, revised the forms used to judge student presentations for Student Paper Awards, organized a student luncheon meeting and room shares for the annual meeting, and (whew!) served as PSG's chair for the silent auction at the

Annual Meeting. Shiway has been helpful in resolving issues regarding student travel support to annual meetings. And she has done much to boost the esprit de corps of PSG's student membership. The joint annual meeting had over 100 student registrants, and 68 presented oral presentations or posters that were eligible for student paper awards.

PSG is in very solid financial shape, thanks to the efforts of Treasurer Ron LeValley, and to the three Trustees of the PSG Endowment Fund, Malcolm Coulter, Craig Harrison, and Ron LeValley. PSG realized a net income of over $5,435 during its 2003-04 fiscal year (October 1–September 30). The Endowment Fund increased in value by approximately 20% during the fiscal year; it was valued at $119,512 on 1 January 2005. Conservative and prudent methods have been devised by the Trustees to protect the principal of the Endowment Fund, while also allowing a significant contribution in support of PSG publications costs (up to $6,387 in fiscal year 2004-05).

Memberships have declined during the past decade, to 397 from a peak of over 450. Part of this slump reflects the departure of members whose interests were restricted to Marbled Murrelet work after ESA listing in the early 1990s. Because PSG's annual income depends so heavily on membership dues, it is important for us to recruit new members and to re-attract members who have let their memberships lapse.

Several of PSG's committees have had a busy year. The Seabird Monitoring Committee, under the leadership of coordinator Scott Hatch, has made significant progress in implementing the Pacific Seabird Monitoring Database, which is under PSG's sponsorship. In the near future this database will become available for on-line entry and retrieval by anyone seeking time-series data on Pacific seabirds. It will be enormously valuable resource. Gerry McChesney was appointed as the new Coordinator for the Xantus's Murrelet Technical Committee. Gerry and the Committee helped see through the listing of this species as threatened by the State of California, a major accomplishment that was initiated by PSG. The murrelet and the Committee now face new challenges, such as the construction of a major liquid natural gas plant in the Coronados Islands. In addition, the California Fish and Game Commission has removed measures from the state's Market Squid Fishery Management Plan that would have protected the Xantus's Murrelet and other seabirds in the Channel Islands. PSG continues to support and encourage the creation of a México Seabird Conservation Committee; Xico Vega and Eduardo Palacios are currently considering serving as co-coordinators of this new PSG committee.

On a somber note, one of the members of PSG's Executive Council, Mark Pierson, Regional Representative from Southern California, was stricken with cancer and is fighting for his life. PSG's Executive Council and its membership wish to offer their support and sympathies to Mark and his partner, Cathie Dunkel, during this difficult time. Mark has been a long-term active supporter of PSG and its mission. [*Editor's note*: Mark died on 15 April 2005; please see his obituary elsewhere in this issue.]

On the whole, PSG has had a very successful year. However, we are looking toward a number of new challenges in times of changing environmental, political, financial, and scientific conditions. PSG's main strength in meeting these challenges is its membership. PSG needs to find new ways to attract new members, not just in the core membership countries of the U.S. and Canada, but other Pacific Rim countries where members are generally sparse. Otherwise, membership may continue to slide and PSG may find itself *de facto* a North American Pacific Seabird Group, instead of the international and diverse organization that it aspires to be. The proposed PSG 2020 Long-term Planning Committee should address this fundamental issue facing PSG.

PSG is extremely fortunate, as a professional society dedicated to both basic and applied seabird ecology, to have a core of highly committed, dedicated, and hard-working volunteers. This is the resource that will sustain our group and help it grow in strength during the difficult times ahead, and will allow it to continue making major contributions to the study and conservation of seabirds. Please join me in thanking out-going members of the PSG Executive Council. I also welcome the incoming Executive Council members; as outgoing Chair, I am very pleased to have someone of Bob Day's abilities and dedication taking over as Chair of PSG. This coming year promises to be another good one for PSG. Finally, many thanks to all of PSG's members for your various investments in the future of PSG.

EXECUTIVE COUNCIL MINUTES

SUMMARY OF MINUTES OF THE EXECUTIVE COUNCIL MEETING OF THE PACIFIC SEABIRD GROUP, 19 JANUARY 2005
Hilton Portland and Executive Tower, Portland, Oregon, USA

[These minutes were approved by the Executive Council at its meeting on 13 July 2005. The full minutes are available from the secretary, Ron Ydenberg (ydenberg@sfu.ca).]

The January 2005 meeting of the PSG Executive Council (Exco) was called to order by President Dan Roby. In attendance were Roby, Bob Day, Craig Harrison, Ron LeValley, Ron Ydenberg, Shiway Wang, David Irons, Tony Gaston, Louise Blight, Malcolm Coulter, Beth Flint, and Katie O'Reilly. Verena Gill joined some discussions by telephone. Vivian Mendenhall's proxy was held by George Divoky. Committee chairs Pat Baird and Pat Jodice also were present.

Minutes and financial reports

A motion was approved to accept the minutes from the January 2004 meeting. The Treasurer's Report and the Endowment Fund Trustees Report were presented and accepted.

PSG Administration

Elections

Pat Baird reported on the 2004 election for the Exco [*see "PSG News," this issue*]. It is always difficult to find nominees to run in elections; regional representatives should become proactive in finding candidates.

Exco meetings

A motion was approved to hold a second Exco meeting each year in July, August, or September. The agenda would include time-sensitive matters that cannot wait until the next Annual Meeting, items left unresolved at the Annual Meeting, and (as time allows) new items that are not time-sensitive. [*The draft Minutes from the 2005 midyear meeting are summarized below.*]

PSG Handbook

The PSG Handbook is often consulted about meeting procedures and other matters, but it has been updated irregularly. A motion was approved that the Secretary and Past Chair will update the Handbook soon after each PSG meeting.

Fiscal management

A motion was approved to maintain $30,000 (three years' budget) in the General Account. Funds in excess of this will be transferred to the Endowment Fund.

Guidelines for accounting formats that should make it easier to follow PSG's income and expenditures will be added to the Handbook, at the suggestion of Ron LeValley and David Irons.

Dues will be raised in 2006. Regular membership will be $30, student dues $20, and lifetime membership $900.

Long-range planning

A motion was approved to establish a PSG 2020 Strategic Planning Committee. It will recommend to the Exco how PSG might improve its activities for studying Pacific seabirds and conserving species and their environment. To this end, it will review meetings, publications, conservation activities, structure of the Exco, and membership, among other things. An initial subcommittee was assigned to report to the Exco on a detailed proposal.

PSG meetings

The 2006 meeting will be held at the Alyeska Prince Hotel, Girdwood, Alaska, on 15-19 February.

The 2007 meeting is proposed for 7-11 February in Asilomar, California.

The 2008 meeting had been proposed for Hawaii, in conjunction with a World Seabird Conference, but this was reconsidered because some felt it would be too expensive. A suggestion was made to meet in Barcelona in autumn 2007, when the Waterbird Society and Mediterranean seabird groups will be there. Xavier Ruiz appeared before the Exco to discuss the Barcelona meeting. A motion was approved that PSG consider involvement in the Barcelona meeting, but hold our regular annual meeting elsewhere in early 2008. Arcata, California was proposed for the 2008 meeting (last year the site was proposed for 2009).

Sites were suggested for future meetings: 2009—Victoria, British Columbia; 2010—somewhere in México; 2011—Hawaii.

Silent auctions

Silent auctions are held at some PSG meetings, but there has been no regular chair. A motion was approved that the Student Representative will be Chair for the Silent Auctions. Duties will include soliciting donations of auction items from businesses, arranging displays, and overseeing bidding.

PSG at other meetings

The North American Ornithological Congress (NAOC) is planned for August 2006 in Veracruz, México. Lisa Ballance reviewed the Exco's 2004 decision that PSG will not hold an annual meeting in conjunction with the NAOC. PSG might support part of the scientific program, if a PSG member volunteers to do this and if the Exco agrees.

For the meeting in Barcelona in 2007, see above.

Awards

Special Awards procedure

In the past, nominations for Special Achievement Awards and Lifetime Achievement Awards have been submitted by members to the Awards Commit-

tee (Past Chair, current Chair, and Chair-elect). George Divoky plans to meet with all Past Chairs and develop better continuity for the Awards Committee and will present a proposal to the Business Meeting.

Travel awards

A motion was approved that the Past Chair will solicit and review applications for awards to two types of attendees at Annual Meetings: students from the U.S. and Canada, and biologists (students or non-students) from any other country. Travel for the U.S./Canada student will be supported from the budget for each meeting, and that for the non-U.S./Canada biologist from the General Fund. The Past Chair will solicit grants and donations to help support the awards and will recommend expenditures to the Awards Committee.

Committee Reports

Reports were presented by the Conservation Committee (by Craig Harrison), Japan Seabird Conservation Committee (Kim Nelson, for Koji Ono), Marbled Murrelet Technical Committee (Ann Harfenist), Xantus's Murrelet Technical Committee (Gerald McChesney), Seabird Monitoring Committee (Scott Hatch), Corresponding Members (Malcolm Coulter), and PSG's representatives to other organizations—the American Bird Conservancy, Ornithological Council, and International Union for the Conservation of Nature (Malcolm Coulter and Craig Harrison).

Student issues

Shiway Wang presented the report of the Student Representative. Discussion followed on Student Travel Awards, student mentoring, and how students might get more involved in meetings.

Publications

Pacific Seabirds

The editor's report was received and accepted. The Treasurer said many subscribers have inquired why their journals have not arrived; this will be investigated. *Pacific Seabirds* is still awaiting a write-up from Bill Sydeman on the Lifetime Achievement Awardee for 2004.

The Exco clarified their 2004 decision on publishing of *Pacific Seabirds*. Subscribers should be able to choose whether they prefer to read *Pacific Seabirds* on PSG's Web site or to receive it in the mail. The journal will be posted on the Web site in PDF format, as well as sent as "hard copy" in the mail; members will be asked to state which way they prefer to receive it.

Marine Ornithology

The editor's report was received and accepted. The Exco clarified their 2004 decision on publication of *Marine Ornithology*. PSG will support the journal with up to $6000 each year, if needed. The societies that publish *Marine Ornithology* will review their joint venture before PSG's 2008 meeting.

PSG web site

A motion was approved to place management of the web site under the Publications Committee. The committee will be responsible for decisions on format and content. Funding by PSG will continue to be approved by the Exco. Another motion was approved to create a *Pacific Seabirds* page on the web site, where PDFs of past issues will be posted.

Symposia

Members who want to organize a symposium or special paper session at an Annual Meeting must get approval from PSG. In recent years, proposals have been submitted to both the Scientific Chair for the meeting, and the Coordinator of the Publications Committee (since that person oversees publication of symposia). A motion was approved for a Symposium Selection Subcommittee under the Publications Committee. The subcommittee will develop a process for soliciting, approving, and publishing symposia. The Publications Chair will publicize the new application process.

PSG support of publications

A motion was approved to support publication of the Special Paper Session on Beached Bird Surveys in *Marine Ornithology* ($2200), scanning PSG's out-of-print symposia as PDF files ($900; both from the Endowment Fund), and publication of the American White Pelican Symposium in *Waterbirds* ($3300; from the General Fund). The Endowment Fund is restricted by the PSG Bylaws to supporting PSG publications. There was discussion of what criteria define such a publication.

EXECUTIVE COUNCIL MINUTES

SUMMARY OF DRAFT MINUTES OF THE EXECUTIVE COUNCIL MEETING OF THE PACIFIC SEABIRD GROUP, 13 JULY 2005
By telephone conference call

[The full text of the draft minutes are available from the secretary, Ron Ydenberg (ydenberg@sfu.ca). The minutes will become official after approval at the Exco's February 2006 meeting.]

MINUTES AND FINANCIAL REPORTS

A motion was approved to accept the minutes from the January 2005 meeting, with several minor corrections.

PSG MEETINGS

2005 meeting

The financial report for PSG's annual meeting in Portland in January 2005 was presented by Local Chair Katie O'Reilly.

2006 meeting

Katie O'Reilly reported on plans for the Girdwood meeting, to be held 15-19 February 2006. One symposium and three special paper sessions are planned. Three plenary Speakers are planned but not yet confirmed. Verena Gill will provide a budget for Exco review by September.

PROPOSED INTERNATIONAL SEABIRD CONGRESS

Ron Ydenberg reported on tentative plans for an international seabird congress to be held in Taiwan. Taiwan is keen to host international scientific meetings and can subsidize some expenses. The target date would be late October 2006. PSG could be involved in planning the scientific program. We would hold our regular meeting elsewhere. The Exco aired concerns over the short time available to plan and other issues, but Ydenberg was given an enthusiastic approval to continue preliminary negotiations with Taiwanese colleagues.

AWARDS

Achievement awards

The Awards Committee has received a list of nominees from the newly-formed subcommittee of Past Chairs. On their recommendation, motions were approved to give the 2006 Lifetime Achievement Award to Vernon Byrd and the Special Achievement Award to Mark Rauzon. It remained to be decided who will write articles on the awards for *Pacific Seabirds*.

Travel awards

The Past Chair, Dan Roby, was assigned at the previous Exco meeting to raise funds for travel awards. He is seeking ideas for donors.

ADJOURNMENT

The Chair adjourned the meeting at 12:10. He thanked Ron LeValley for organizing the conference call procedure, which worked very smoothly.

COMMITTEE REPORT

MARBLED MURRELET TECHNICAL COMMITTEE

Anne Harfenist

The Marbled Murrelet Technical Committee (MMTC) met at the 2005 PSG conference in Portland. We began with a presentation by Peter Harrison on the Washington Department of Natural Resources conservation strategy for Marbled Murrelets on state lands. Peter McBride then led a discussion on trying to use the Inland Survey Protocol (ISP) to assess potential Marbled Murrelet habitat at high elevations, and the options that are being considered to overcome difficulties they encountered. MMTC members interested in discussing this topic have formed a working group; if interested, you can contact Peter at peter.mcbride@wadnr.gov

Lynn Roberts then brought us up to date on the U.S. Fish and Wildlife Service (USFWS) 5-year status review of Marbled Murrelets, and on USFWS disturbance guidelines. A working group on disturbance is being set up. Carolyn Meyer (meyerc@uwyo.edu) and Falk Huettmann (fffh@uaf.edu) described a proposed global Marbled Murrelet model. Those who would like to participate in the development of the model should contact Carolyn or Falk for more details. Finally, Clint Smith discussed habitat enhancement and restoration; a working group has been set up to continue this effort. Please contact Clint (csmith@odf.state.or.us) if you would like to get involved in the group.

If you would like further information about any of the activities of the MMTC, please contact Danielle Prenzlow Escene, the new coordinator (danielle.prenzlow@wadnr.gov).

REGIONAL REPORTS FOR 2004
(CONTINUED)

Most Regional Reports for 2004 were published in *Pacific Seabirds* 31(2). Reports for two regions could not be published at that time and are presented below. Regional reports for 2005 will appear in the autumn issue, as usual.

SOUTHERN CALIFORNIA
Compiled by **Dan Robinette**

Cheryl Baduini continues to be greatly involved in undergraduate teaching and research at the Claremont Colleges. Current research projects with undergraduates include: (1) use of molecular techniques for gender identification in seabirds; (2) tracking the trans-equatorial movements, migration, and genetic structure of Sooty Shearwaters (*Puffinus griseus*) using satellite telemetry, in collaboration with **Josh Adams** and **Jim Harvey,** Moss Landing Marine Laboratories, and with **David Hyrenbach** of the Duke Marine Laboratory; (3) gender bias of Beachcast Sooty Shearwaters in Monterey Bay, in collaboration with **Hannahrose** Nevins, Moss Landing Marine Laboratories; (4) population structure and sex bias of Ashy Storm-petrels (*Oceanodroma homochroa*) off the Southern California Channel Islands in collaboration with Josh Adams; and (5) quantifying Black-footed Albatross (*Diomedea nigripes*) habitats and overlap with longline fisheries, in collaboration with Oikonos Organization, with the goal of reducing bycatch off California and across the North Pacific. This semester, Baduini also has assisted Pitzer College in setting up a study abroad site and field station near Dominical, Costa Rica. In collaboration with her colleague **Don McFarlane**, Cheryl will teach a tropical ecology course at the field station for a portion of each semester. Cheryl and her family (including 4 month old Alec) traveled to Costa Rica in March to visit the field site.

Pat Baird, **Kim Mathot**, and **Audrey Taylor** are investigating the migration ecology of Western Sandpipers (*Calidris mauri*) along the west coast of Central and North America. Research includes attaching radio telemetry tags to the birds in Panama and Mexico and following their northward migration through California.

Lisa T. Ballance and **Robert L. Pitman** (National Oceanographic and Atmospheric Administration [NOAA] Fisheries, La Jolla) participated in a French expedition to Clipperton Island during March, 2005, to study the foraging ecology of the Masked Booby (*Sula dactylatra*). Clipperton is the world's largest colony for this species. They collected diet samples from over 200 adults and quantified over 1700 prey items. They also participated in a joint study using satellite and accelerometer tags to compare foraging behavior of Masked, Brown (*S. leucogaster*), and Red-footed (*S. sula*) Boobies. More details are at http://www.jeanlouisetienne.com/clipperton/default.cfm. Ballance and Pitman also plan to conduct two oceanic surveys of seabird distribution and abundance (each part of a larger ecosystem project). The first will cover the Exclusive Economic Zone of California, Oregon, and Washington, and the second will cover Central Pacific waters between the main Hawaiian islands and Johnston and Palmyra Atolls. Both surveys will be conducted from NOAA research vessels during June-July through December. See http://swfsc.nmfs.noaa.gov/PRD/PROGRAMS/ecology/default.htm for more details.

Kathy Keane is continuing to monitor the California Least Tern (*Sterna antillarum*) at the Port of Los Angeles, and to conduct Least Tern foraging surveys as part of mitigation monitoring for the creation of shallow-water habitat. At the Port of Los Angeles, Least Tern nest numbers have increased from an average of 41 pairs and 27 fledglings per year from 1973 through 1996, to an average of 432 nests and 306 fledglings per year since 1997, including over 1000 nests in 2004. This increase is attributed to the increase overall in the statewide population, to more effective but focused predator management, and possibly to enhanced foraging opportunities in the vicinity of Los Angeles Harbor. Kathy is also monitoring the few remaining Least Tern nesting areas near San Felipe on the east coast of Baja California, Mexico, where she now resides part-time.

Holly Gellerman is currently finishing her Master's thesis on the mitigation and reintroduction of the Anacapa Island deer mouse (*Peromyscus maniculatus anacapae*) following eradication of rats (*Rattus rattus*). Rat eradication at Anacapa appears to have been a success, and deer mice are well re-established. Holly is also working for the U.S. Navy at San Nicolas Island, monitoring the disturbance of Brandt's Cormorants (*Phalacrocorax penicillatus*), California sea lions (*Zalophus californianus*), elephant seals (*Mirounga angustirostis*), and harbor seals (*Phoca vitulina*) during missile launches. She also conducts window surveys of breeding Snowy Plovers (*Charadrius alexandrinus*) on the island. The goal for

2005 is to begin monitoring breeding colonies of Brandt's Cormorants and Western Gulls (*Larus occidentalis*).

Dan Robinette, **Julie Lanser**, and **Elizabeth Rogan** (PRBO Conservation Science, Marine Ecology Division) are beginning their sixth year of an anticipated long-term research program at Vandenberg Air Force Base (VAFB), California. **Nancy Read Francine** (VAFB) has been fundamental in keeping this project funded. Species of interest include Brown Pelicans (*Pelecanus occidentalis*), Pigeon Guillemots (*Cepphus columba*), Brandt's Cormorants, Pelagic Cormorants (*Phalacrocorax pelagicus*), California Least Terns, Black Oystercatchers (*Haematopus bachmani*), Western Gulls (*Larus occidentalis*), Ashy Storm-petrels, Rhinoceros Auklets (*Cerorhinca monocerata)*, Sooty Shearwaters, and Pacific Loons (*Gavia pacifica*). Research includes data collection on population dynamics, breeding biology, foraging habits, diet, roost utilization, and migration. Most data are collected during the breeding season, but data on roost utilization are collected year around. Significant results include the discovery of a possible Ashy Storm-petrel breeding population at VAFB. Ashy Storm-petrels have been caught in mist nets for the fourth consecutive year. PRBO is coordinating with **Josh Adams** of the U.S. Geological Survey, who is conducting a radio telemetry study on petrels breeding at the Channel Islands (CIs). PRBO's goal is to determine whether petrels caught at VAFB are breeding at VAFB, or are breeding at the CIs and just foraging in waters adjacent to VAFB.

PRBO has also completed the fifth year of a nearshore foraging study monitoring the use of the Vandenberg Marine Ecological Reserve by seabirds and marine mammals. In 2004, they expanded this study to include monitoring the use of rocky intertidal areas inside and adjacent to the marine reserve by Black Oystercatchers. PRBO's goal is to further expand this work to include monitoring the use of newly established marine protected areas at the CIs. Other goals include investigating the use of Pigeon Guillemots as indicators of sanddab (*Citharichthys* sp.) recruitment to waters on the leeward and windward sides of the Point Arguello Promontory, and initiating an investigation into the effects of northern anchovy (*Engraulis mordax*) abundance and physical oceanographic variables on the reproductive success of California Least Terns statewide. PRBO has identified a significant positive relationship between the proportion of northern anchovies in the diet and the reproductive success of Least Terns at VAFB. In 2004, anchovies were virtually absent in diet samples and the terns failed to nest at VAFB.

HAWAI'I AND PACIFIC RIM

Compiled By **Elizabeth Flint**

Hawai'i and U.S. Pacific islands

The status of the 'Ua'u (Hawaiian Petrel, *Pterodroma sandwichensis*) continues to improve in Haleakala National Park, according to **Cathleen Natividad Bailey,** Wildlife Biologist for the park. Biologists continue to find new nests each year, and the number of known nests has exceeded 1000. Growth in the population is attributed to the park's active control programs for feral animals and predators. Most nests are located using Global Positioning System (GPS) technology. Much of Haleakala Crater still needs to be surveyed, but biologists suspect that as many as a few hundred more nests exist there. As in previous years, young 'Ua'u were rescued during the "grounding" season in October, when young birds leave their nests for the first time, become confused by urban lights, and fall to the ground. Three birds needed rehabilitation this year. One was found by a jogger and had been bitten on the head by either a mongoose or a cat. The group was proud to say that after brief treatment by a local veterinarian, the bird was successfully rehabilitated and released by park biologists. The second bird was not as fortunate; after several days it had to be euthanized because of irreversible neurological damage. The third bird is currently under rehabilitation with a broken leg. The leg was pinned by a local vet, and the bird appears to be doing well; however, it will be several more weeks before the bird is ready for release.

Biologists from Alaska Biological Research, Inc. (ABR) have been conducting flyway studies of the 'Ua'u at Haleakala to evaluate risks posed by wind power development on nearby lands.

Brenda Zaun, Wildlife Biologist for the Kauai (NWR) Complex, expanded her Newell's Shearwater (*Puffinus auricularis newelli*) study this year to include passive integrated transponder (PIT) tags. The tags are attached to the bands of nesting adults. They will add information to that from the Trailmaster active infrared transmitter/receiver and camera used last year at the burrows. These two systems recorded date and times of burrow entry and exit by nesting pairs as they returned nightly to feed their chick, as well as the incidence of potential predators at burrows. Incubation length, incubation intervals, chick provisioning frequency, and chick growth were obtained this year in addition to other aspects of the breeding ecology of this species. Zaun also monitored populations of all other seabird species nesting at Kilauea Point NWR.

Roberta Swift continues her work at Hawaii Volcano National Park on the biology of the Hawaiian Petrel and recently defended her Masters Thesis at Oregon State University.

Lindsay Cooper Young, University of Hawaii at Manoa, is examining the oceanic distribution and population dynamics of the Laysan Albatross (*Phoebastria immutabilis*) through the use of geolocation telemetry and microsatellite genetics. She is studying oceanic distribution by: (1) comparisons between different breeding colonies, (2) correlation with oceanographic conditions that are indicators of primary pro-

ductivity, and (3) correlation with known North Pacific fisheries to determine the amount of overlap.

Young is using microsatellites to determine: (1) the population structure of different breeding colonies, (2) the colony of origin for birds caught as bycatch in the longline fishery, and (3) source population(s) for recent recolonization events across the Pacific. These data will be used to form a more complete picture of the population dynamics of the Laysan Albatross, and ultimately it will aid in their conservation.

Bob Pitman and **Bill Walker** are studying the diet composition of Laysan and Black-footed (*Phoebastria nigripes*) Albatrosses, using regurgitated boluses of undigested squid beaks from Laysan Island, French Frigate Shoals, and Midway Atoll. They also have gone back to food samples from fresh food regurgitations collected in the early 1980s and identified all squid beaks from the study by Harrison et al. in the 1980s. Pitman and Walker will be able to compare dietary composition from those earlier collections with present day samples. They also hope to expand their study to the Short-tailed Albatross (*P. albatrus*).

Jeremy Bisson, University of Hawaii at Manoa, is continuing his research on the trophic relationships of Laysan and Black-footed Albatrosses, as well as his work with National Marine Fisheries Service's Observer Program.

The annual albatross nest count was successfully completed in early January 2005 at French Frigate Shoals, Laysan Island, and Midway Atoll. These counts indicated that both Laysan and Black-footed Albatross numbers have remained relatively stable, relative to the first such count done by these methods in 1991. The populations at the 3 sites represent roughly 93% of the entire world population of Laysan Albatross and 77% of the world's Black-footed Albatross. Several Pacific Seabird Group members and former members participated in the count at Midway this year, including **Beth Flint**, **Holly Freifeld**, **Greg Balogh**, **Tomohiro Deguchi**, and **Lindsey Hayes.** Another participant was **Ryo Maeyama,** a colleague from Japan who had done much field work on Short-tailed Albatross.

Early in 2005, **Brenda Zaun** facilitated the rescue of 27 Laysan Albatross eggs that were scheduled to be destroyed because they had been laid at the Pacific Missile Range Facility (PMRF), where the policy is to remove albatross eggs to reduce the hazard of bird air strikes. A cooperative arrangement with the Navy enabled her to take those eggs and chicks from PMRF and place them under incubating birds at Kilauea Point that had been identified as having non-viable eggs.

Monitoring of seabird populations continued in the Pacific Remote Islands National Wildlife Refuge (NWR) Complex. Staff and volunteers visited the eight refuges of the Complex (Hawaiian Islands NWR, Johnston Atoll NWR, Howland Island NWR, Baker Island NWR, Jarvis Island NWR, Kingman Reef NWR, Palmyra Atoll NWR, and Rose Atoll NWR). Monitoring staff are present year-round at several refuges, including French Frigate Shoals and Laysan Island in the Hawaiian Islands NWR and Palmyra Atoll NWR. All other sites were visited only briefly, as the opportunity arose to take advantage of vessels going to those sites. Hurricane Ivan passed close to Rose Atoll in November and caused damage to the plant community; damage was visible from the air, but there has been no opportunity yet to assess the effects to the seabird populations.

Seabird monitoring will be included in the long-term ecological monitoring being developed for the network of Hawaii and Pacific Island National Parks, according to Darci Hu, Wildlife Biologist at Hawaii Volcano National Park. Hu plans to include Hawaiian Petrels and Band-rumped Storm-petrels (*Oceanodroma castro*) in the main Hawaiian Islands and other species nesting in American Samoa.

Lee Ann Woodward continues her studies of the effects of contaminants on albatross health at Midway Atoll and French Frigate Shoals. She also is coordinating the effort to battle an introduced scale insect (*Pulvenaria urbicola*) that is destroying important habitat for tree-nesting seabirds at Palmyra Atoll and Rose Atoll.

Katie Swift, Ecological Services Division, U.S. Fish and Wildlife Service (USFWS), Honolulu**,** Continues her work with the Invasive Species program of that office. She attended the Rodent Summit in Fort Collins Colorado in October 2004, and she is on the team designing the plan for eradicating rats (*Rattus* sp.) from Palmyra Atoll. She continues her work on getting rodenticides registered for aerial broadcast on islands and wildlands in Hawai'i. **Chris Swenson** of Coastal Programs, Ecological Services, USFWS, is actively involved in the restoration of Lehua Island through removing rabbits (*Oryctolagus cuniculus*) and rats (*Rattus exulans*) and subsequent translocation of native species to the site.

Michelle Reynolds and **John Citta** (Biological Resources Division, U.S. Geological Survey) are working under contract to the Migratory Bird Division of USFWS to produce a seabird monitoring manual for the Pacific Islands.

Robert L. Pyle continues his work on a summary of all bird occurrences and distribution in the Hawaiian Islands. He also continues to assist all biologists in Hawaii with questions on identification and the ornithological history of Hawai'i.

Beth Flint and **Maura Naughton** presented a paper at the Northwestern Hawaiian Islands Third Scientific Symposium (November 2004) entitled "Populations and conservation status of seabirds nesting in the Northwestern Hawaiian Islands."

The International Bird Rescue Research Center (IBRRC) has closed its Hawaii/Pacific Islands Regional Office, after a decade of work there. **Linda Elliott** remains in Hawai'i and is working on filling the void by developing local resources. This includes the Hawaii Wildlife Center project, a wildlife center that cares for sick and injured native wildlife, does emergency response on their behalf, and carries out conservation, education and research. The center will emphasize seabird care and conservation.

Congressman Ed Case and State Representative Dwight Takamine are supporting the center and working towards fiscal assistance in their respective 2006 budgets. Surety Kohala has donated the land. West Hawaii Concrete and its parent company are donating all of the concrete, through the MDU Foundation, and will supply labor to build the facility. Jack Hoyt and Ray Chavez are donating the design and architecture services. The University of California Davis, School of Veterinary Medicine is collaborating on design specifications for the building. Cornell University also has agreed to collaborate on the project. And the first private foundation grant has been received through the North Kohala Community Resource Center. Anyone interested in the Hawaii Wildlife Center project can contact Linda via e-mail at lindae808@yahoo.com.

Elliot also continues working with other members of the oil spill response community in Hawaii providing training for state wildlife responders.

South America

Peter Hodum, California State University, Long Beach (phodum@csulb.edu) and **Michelle Wainstein**, University of Washington completed their third consecutive year of ecological and conservation research on the threatened seabird community of the Juan Fernández Islands, Chile, in March 2004. Their efforts focus on the Pink-footed Shearwater (*Puffinus creatopus*), Kermadec Petrel (*Pterodroma neglecta*), Juan Fernández Petrel (*Pterodroma externa*) and Stejneger's Petrel (*Pterodroma longirostris*). General research objectives include investigating breeding biology parameters, the status of populations, foraging ecology, and the impacts of introduced mammals. Mammalian impacts include predation by cats (*Felis sylvestris*), coatimundis (*Nasua narica*), and possibly rats (*Rattus rattus* and *R. norvegicus*) and mice, as well as competition with rabbits (*Oryctolagus cuniculus*) for breeding burrows. We are using stable isotope analyses to determine not only trophic structure of the seabird community but also the diet of rats and mice. We also satellite tracked breeding Pink-footed Shearwaters during the chick provisioning stage of the season. Preliminary analyses suggest that these shearwaters typically feed several hundred kilometers to the east and southeast of the archipelago while provisioning chicks. Their research program is collaborating with two graduate students on their Ph.D. research: **Joanna Smith** (University of Washington) is studying the foraging ecology and provisioning strategies of Juan Fernández Petrels, and **Matthew McKown** (University of North Carolina, Chapel Hill) is investigating vocal repertoires and communication in both Juan Fernández and Stejneger's Petrels.

Korea

Dr. Heon-Woo Park (phw8033@hanmail.net) and Prof. Sooil Kim (sooil@knue.ac.kr) at the Korean National University of Education have been studying the status of the breeding grounds of Saunders' Gulls (*Larus saundersi*) at the Songdo reclamation area and Youngjongdo area in Inchon bay, on the west coast of Korea. This year, breeding sites at Youngjongdo were partially damaged by people constructing an airport. However, breeding sites at the Songdo reclamation area have not been disturbed during the last several years. Most birds have now moved to the south from the breeding area, but some still remain at Inchon bay. Next year, Park and Kim plan to track breeding site shifts which might occur due to human disturbance.

This year, many seabird studies were conducted by colleagues at Kyung Hee University, supervised by Prof. **Jeong-Chil Yoo** (jeongchil@hotmail.com). **Hark-Jin Kim** (saunders@unitel.co.kr), in the course of working for his Ph.D. has been studying the foraging behavior and wintering ecology of Saunders' Gulls for 10 years at migrating sites on the Kum River Estuary on the mid-western coast of Korea. His main subject is the correlation between wind velocity and the gulls' foraging strategies. Saunders' Gulls change their foraging behavior according to environmental changes, as do other seabirds. In particular, wind velocity affects which foraging strategies they choose. Kim is studying habitat selection, optimal foraging theory, wintering ecology, and human disturbance relative to conservation strategies for this species.

Dr. Young-Soo Kwon (auk1005@daum.net) has been studying on the ecological aspects of breeding and conservation in Black-tailed Gulls (*Larus crassirostris*). In particular, his recent research is concerned with breeding success in relation to offspring sex ratio and intra-specific nest parasitism.

Who-Seung Lee (tgmusic@hanmail.net) is continuing his work on the Black-tailed Gull, examining factors that affect their nest-site characteristics and habitat selection on Hongdo Island. [*Editor's note: see report in this issue*.] He is also researching ecological modeling for conservation of Black-tailed Gulls using Artificial Neural Networks.

Jeong-Hoon Kim (birdlove@hanmail.net) studied the effect of prey size on courtship feeding and kleptoparasitism in the Little Tern (*Sterna albifrons*) during the mating period, at a breeding colony at Ganweol Lake on the west coast of Korea. He is going to study nest site selection and the distribution of nests of Brown and South Polar Skuas (*Catharacta lonnbergi, C. maccormicki*) on Barton Peninsula, King George Island, Antarctica from Dec 2004 to Jan 2005.

Kyung-Gyu Lee (scops@hanmail.net) and **Ki-Back Nam** (ibis02@hanmail.net) surveyed the breeding status of Streaked Shearwaters (*Calonectris leucomelas*) on Sasudo Island during the late chick-rearing period. Out of 127 burrows surveyed, 45 (37%) had a full-grown chick that arrived at the stage of body-mass reduction. This figure, and last year's data (27%, 97 burrows out of 354 surveyed) collected during a similar period of the year, have

made Lee and Nam reconsider the extent of predation by Norway Rats (*Rattus norvegicus*). Previously they thought that predation's harmful impact was more severe.

Nam is presently writing articles on the incubation routine and desertion behavior of Streaked Shearwaters, and his preparing to study abroad for PhD course. Lee wrote a paper: Lee, K. G. and Yoo, J. C. 2004. Variation in chick provisioning of Streaked Shearwaters (*Calonectris leucomelas*) during the early nestling stage. *Journal of Yamashina Institute for Ornithology* 35:105-119. For copies, please contact the author.

To see beautiful pictures and stories about Korean birds, including gulls, please check the following web sites: http://home.megapass.co.kr/~skua/ and http://www2.kongju.ac.kr/srcho/pintail/index.html

JAPAN

Haruo Ogi, Hiroshi Hasegawa, Hiroyoshi Higuchi, and **Kiyoaki Ozaki,** are all members of the Short-tailed Albatross Recovery Team, which met in Chiba, Japan in May of 2004. Along with other team members from the US and Australia, they discussed recovery actions and goals for this species.

(For work by **Hiroshi Hasagawa** on Short-tailed Albatrosses, see the Conservation Report in this issue.)

ERRATUM

In the Conservation Report of Fall 2004, the item entitled "Wake Atoll Apparently Cat-Free" (*Pacific Seabirds* 31:50, 2004) said that a salvaged bird specimen from Wake Island was identified as a Fluttering Shearwater (*Puffinus gravia*) from New Zealand. DNA analysis later proved it to be a Wedge-tailed Shearwater (*Puffinus pacificus*). Wake Island apparently still remains cat-free.

BOOK REVIEW

Sea of Glory: America's voyage of discovery, the U.S. Exploring Expedition, 1838-1842.
By Nathan Philbrick. 2003. Penguin Books, New York. xxv + 452 pp. 42 illustrations, 8 maps. Hardback (ISBN 0-670-03231-X), paperback (ISBN 0 14-20.0483 9). $16.00 (paper).

Reviewed by Mark Rauzon

Lewis and Clark are renowned American explorers, and rightfully so. But who has heard of Wilkes and Peale? It is little wonder that landlubbers are familiar with the travels and travails of Lewis and Clark, owing to *Undaunted Courage,* the recent, well-regarded book by Stephen Ambrose (Simon & Schuster, 1996). But seabirders, at least, ought to know about Wilkes and Peale. This lack has recently been remedied by a new book and new website offerings.

The book is Nathaniel Philbrick's *Sea of Glory*, which has recently appeared in paperback. Philbrick revisits the story of the U.S. Exploring Expedition of 1838-1842, one of the most ambitious undertakings of the nineteenth century, and one of the largest voyages of discovery the western world has ever seen. It was commanded by a brash young Navy lieutenant named Charles Wilkes.

Philbrick is a maritime author and director of the Egan Institute of Maritime Studies in Nantucket, Massachusetts. His previous book, *In the Heart of the Sea: The Tragedy of the Whaleship* Essex, won the National Book Award and was on the *New York Times*'s best-seller list. The story of a whaling vessel that was stove in by a sperm whale inspired Melville's *Moby Dick*. And Melville developed his Ahab character from the real Charles Wilkes.

The U.S. Exploring Expedition, known in shorthand as the "Ex. Ex" was designed to outdo all 58 previous exploring expeditions of the European powers. In 1838, six naval vessels manned by 346 sailors, including nine scientists and artists, set forth on the expedition. Four years and 87,000 miles later, 2 ships had been lost and 28 sailors were dead. But over 280 islands were surveyed and charted for the first time, as well as the Columbia River and part of Antarctica. Thousands of artifacts and specimens were collected by the scientists and would become the basis of the Smithsonian Institution. Mark Twain, Herman Melville and Henry David Thoreau were each inspired by this American odyssey. As Philbrick says, "By all rights, the Ex. Ex. should have become an enduring source of national pride" (*Sea of Glory* :xxiii).

Yet the Ex. Ex. is little known to the public because of the human foibles involved. Wilkes had poor interpersonal skills, to say the least. He led as a martinet, a strict disciplinarian. "At some point in the expedition, Wilkes became known as the Stormy Petrel, a nickname that would stay with him for the rest of his life, and as any sailor knows, the appearance of a stormy petrel means rough weather is ahead" (*Sea of Glory*:129). When the expedition concluded, the victorious expedition members moved right into bitter recriminations among the crew toward their captain, charges and counter–charges, and a series of courts-martial. Data were jealously guarded. It took many years for the final reports to be issued, and by then the country's focus had shifted to the slavery issue and civil war.

For seabirders, the Ex. Ex.'s importance lies in its scientific staff, John Cassin and Titian Peale. They collected the first known specimens of the Cassin's Auklet (*Ptychoramphus aleuticus*), Peale's Fulmar (Tahiti Petrel; (*Pterodroma rostrata*), the Pacific or Polynesian rat (*Rattus exulans*), and the Samoan Storm-petrel (*Nesofregetta fuliginosa*). The expedition frequently saw the latter bird within the torrid zone on the Pacific Ocean. A single specimen was obtained at the Island of Upolu, from a native who told the collectors that they bred in holes, very high up in the mountains.

My own work in the South Seas has led me to delve into some of the original materials from the Ex. Ex., using *Sea of Glory* as a springboard. Quite a few incidents that did not make it into *Sea of Glory* are recounted by Wilkes, Peale, and others. For example, I was interested to read that on Tutuila (now in American Samoa), as elsewhere throughout Polynesia, the expedition was cordially greeted and entertained. On October 11, 1839, the flagship *Vincennes* anchored in a harbor that was, according to Wilkes, "one of the most singular in all the Polynesian isles" (Wilkes 1844:75). Wilkes explored Tutuila from the harbor at Pago Pago and completed the survey in a little more than a week, as we ourselves did during our seabird surveys.

The expedition arrived at Ta'u in the nick of time to prevent a bloody fight between the "missionary party, and the 'Devil's Men'." Eight "very bad" white men, who had earlier deserted an English whaler, had "plenty of fight"; but on seeing the "manawa [man of war] arrive, they had gone into the bush" (Wilkes 1844:69). The next day, three of these "devils" wanted to join the Ex. Ex (Wilkes 1844:70)

Conflict on Ta'u got so bad that the King of Manu'a (Tuimanu'a) had to flee for his life. Wilkes dined with the king, but he inadvertently insulted the monarch by refusing to drink *kava* in the traditional ceremony. Wilkes had observed how it was made, and he wanted no part of it—women masticated the root and spit it into bowls, where it fermented and made a mild intoxicant. Wilkes's depar-

ture also was uncomfortable. He suspected the natives of acting suspiciously; he had their canoe stopped. However, the natives' "eyes were full of tears when overtaken. They had nothing at all in their canoe, and after examination it proved we had lost nothing. To console them for this alarm, I gave them a few trifles, and they became easy and cheerful." (Wilkes 1844:19).

In spite of his tendency to paranoia, Wilkes found the natives to be "a finely-formed race, and appeared lively and well-disposed, although in a much wilder state than those in the Society Islands" (Wilkes 1844:19). "When the islands were first visited, the natives were represented as ferocious and treacherous. This arose in a great degree from the bloody conflict they had with the boats of La Perouse's squadron; and the opinion was kept up [by] the just resentment they in some cases manifested for wrongs committed on them by lawless visitors." (Wilkes 1944:132.)

And of invasive and endangered species, they had this observation referring to the Tooth-billed Pigeon (*Didunculus strigirostris*), but it could also apply to any seabird:

> The bird formerly abounded at the island of Upolu, one of the Samoan Islands, but now it is considered a rare species by the natives, and one which will be entirely destroyed in the course of a few years, if the same causes exist which are now operating to their destruction…A few years since a passion arose for cats, and they were obtained by all possible means from the whale ships visiting the islands, were much esteemed for a while, until the other pets were destroyed by them; after which Pussy (a name generally adopted by the Polynesians for cats), not liking yams or taro…preferring Manu-mea, and took to the mountains in pursuit of them. There the cats have multiplied and become wild, and live upon our Didunculus, or little Dodo, the Manu-mea of the natives, which is believed will in a very few years cease to be known…" (Peale 1848:211)

Happily the bird is not extinct now, just very rare.

The "firsts" that were accomplished by the Ex. Ex. are nonpareil. It was the first expedition to ascend Mauna Loa volcano in Hawaii, to map the Columbia River (and lose a ship in the process), to hike from the Columbia to San Francisco Bay, to penetrate as far south as 65° 20', to sight the main Antarctic continent, and to map Fiji and 250 other islands.

Along the way the expedition discovered Wake Atoll, where I also have had the opportunity to work. There are three islets there named Wake, Wilkes, and Peale. The names were bestowed in 1924 by Alexander Wetmore of the Smithsonian, and they are one of the few memorials to the men who helped establish that institution.

In summary, read *Sea of Glory* for historical background on the region where we work. Read *Sea of Glory* to see what the American hero-explorers accomplished four years before the mast—and to learn about human frailty and political machinations on an expedition.

In addition, visit the Smithsonian website, where the original documents and artwork have recently been put online. The site offers a glimpse of future possibilities for archiving the past on the Internet. Of particular interest are Peale (1848) and Cassin (1858). The URL is http://www.sil.si.edu/digitalcollections/usexex

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PUBLISHED PROCEEDINGS OF SYMPOSIA OF THE PACIFIC SEABIRD GROUP

The Pacific Seabird Group holds occasional symposia at its annual meetings. Published symposia are listed below. They are available for purchase (unless out of print). To order, see the membership application/publication order form.

SHOREBIRDS IN MARINE ENVIRONMENTS. Frank A. Pitelka (Editor). Proceedings of an International Symposium of the Pacific Seabird Group. Asilomar, California, January 1977. Published June 1979 in Studies in Avian Biology, Number 2. **OUT OF PRINT.**

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MARINE BIRDS: THEIR FEEDING ECOLOGY AND COMMERCIAL FISHERIES RELATIONSHIPS. David N. Nettleship, Gerald A. Sanger, and Paul F. Springer (Editors). Proceedings of an International Symposium of the Pacific Seabird Group, Seattle, Washington, January 1982. Published 1984 as Canadian Wildlife Service, Special Publication. **OUT OF PRINT.**

THE USE OF NATURAL VS. MAN-MODIFIED WETLANDS BY SHOREBIRDS AND WATERBIRDS. R. Michael Erwin, Malcolm C. Coulter, and Howard L. Cogswell (Editors). Proceedings of an International Symposium at the first joint meeting of the Colonial Waterbird Society and the Pacific Seabird Group, San Francisco, California, December 1985. Colonial Waterbirds 9(2), 1986. **ORDER FROM:** Ornithological Societies of North America, PO Box 1897, Lawrence, Kansas 66044; phone (800) 627-0629; $12.00.

ECOLOGY AND BEHAVIOR OF GULLS. Judith L. Hand, William E. Southern, and Kees Vermeer (Editors). Proceedings of an International Symposium of the Colonial Waterbird Society and the Pacific Seabird Group, San Francisco, California, December 1985. Published June 1987 in Studies in Avian Biology, Number 10. **ORDER FROM** Allen Press, Lawrence, Kansas 66044; $18.50.

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BIOLOGY OF MARBLED MURRELETS—INLAND AND AT SEA. S. Kim Nelson and Spencer G. Sealy (Editors). Proceedings of a Symposium of the Pacific Seabird Group, Seattle, Washington, February 1993. Published 1995 in Northwestern Naturalist, Volume 76, Number 1. **ORDER FROM PSG TREASURER;** $12.00.

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SEABIRD BYCATCH: TRENDS, ROADBLOCKS AND SOLUTIONS. Edward F. Melvin and Julia K. Parrish (editors). Proceedings of an International Symposium of the Pacific Seabird Group, Blaine, Washington, 26-27 February 1999. Published 2001 by University of Alaska Sea Grant, Fairbanks, Alaska. Publication no. AK-SG-01-01. **ORDER FROM PUBLISHER;** $40.00.

BIOLOGY, STATUS, AND CONSERVATION OF JAPANESE SEABIRDS. Nariko Oka (editor). Proceedings of an International Symposium of the Japanese Seabird Group and Pacific Seabird Group, Lihue, Hawaii, February 2001. Journal of the Yamashina Institute of Ornithology 33(2); Symposium (5 papers), pp 57-147, other papers pp. 148-213. In English with Japanese abstracts. **ORDER FROM PSG TREASURER;** $75.00.

OIL AND CALIFORNIA'S SEABIRDS. Harry R. Carter (convener) and Anthony J. Gaston (editor). Proceedings of a symposium fo the Pacific Seabird Group, Santa Barbara, California, February 2002. Published 2003 in *Marine Ornithology* 31(1). **AVAILABLE ONLINE** at www.marineornithology.org; ***free of charge.***

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