PACIFIC SEABIRD GROUP
BULLETIN

Volume 1  
September 1974  
Number 2

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All correspondence concerning the Bulletin should be sent to the Secretary.
THE CHAIRMAN'S PAGE

Since the publication of our first Bulletin less than one year ago the membership of the Pacific Seabird Group has almost doubled. We now number some 240 individuals. Interest in the group and its activities has come from a wide variety of groups and individuals such as the National Audubon Society, Australian Seabird Group, The Seabird Group, U.S. Fish and Wildlife Service, various state game commissions, etc. Contacts made through the group have resulted in several research projects and at least one article and symposium.

Despite our dramatic growth, however, there are still a number of individuals engaged in research with seabirds or interested in them as a unique resource, who are unaware of our activities or goals. If each member would make an effort to contact two or three of these people about PSG membership, we will get more complete coverage of activities relating to seabirds.

Plans for our first general membership meeting are well under way (see notice in this Bulletin). A very diversified and informative schedule of events has been planned and it is hoped that all members will be able to attend. While the paper sessions and alcid symposium will be the primary focus of the meeting, the facilities and schedules were chosen so as to provide maximum possibilities for the exchange of information and viewpoints among the membership. After all, that's what the PSG is all about!

The Pacific Seabird Group is just beginning to formalize its goals and objectives as well as its organizational format. In order that the end product might reflect the feelings of the membership, I invite your comments and suggestions as to questions which should be addressed, topics for future meetings, symposia, etc.

I am looking forward to seeing and talking with as many of you as possible at the meeting in Seattle. Aloha.

J. Michael Scott
P. O. Box 44
Hawaii Nat. Park, HI 96718
Executive Council Election Results

All seats on the executive council were up for election for 1975. In that year one-year terms will be served by representatives from British Columbia, Oregon, southern California and the two non-Pacific seats (U.S. and Canada); two-year terms will begin for Alaska, Washington, northern California, Mexico and Hawaii. Nominations and the opportunity for volunteers to step forward were open until 1 June 1974. Ballots were sent out by 15 June. The list of candidates with the winners underlined is given below:

Alaska - George J. Divoky, James C. Bartonek, J. Larry Haddock
British Columbia - Spencer G. Sealy, R. Wayne Campbell
Washington - David A. Manuwal
Oregon - J. Michael Scott
Northern California - David G. Ainley
Southern California - Daniel W. Anderson, R. Guy McCaskie
Mexico - Bernardo Villa-Ramirez
Hawaii - Robert J. Shallenberger, Palmer C. Sekora, John L. Sincock
Non-Pacific Canada - David N. Nettleship, M. Timothy Myres
Non-Pacific U. S. - C. Eugene Knoder, Gus Van Vliet

Participation in the election by PSG members was quite admirable with approximately sixty per cent of the ballots being returned. We thank the Point Reyes Bird Observatory for supplying postage for the ballots. Helen C. Strong helped to prepare, send and count the ballots. -David G. Ainley, Election Committee Chairman.

1974 Annual Meeting in Seattle in December

The first annual meeting of the PSG will be held from 6-8 December 1974 at the Providence Heights Education and Conference Center in Issaquah, Washington, east of Seattle. Papers on seabird biology and conservation will be presented and a symposium entitled "The Biology of the Alcidae" will be held. Movies on seabirds will be shown, PSG working committees will hold workshops and there will be discussions of PSG goals and activities. Since this is the PSG's first meeting it is hoped that as many members as possible will attend.

Individuals wishing to present papers or show films should contact Spencer G. Sealy, Dept. of Zoology, University of Manitoba, Winnipeg, R3T, 2N2. An abstract of 200 words or less should be submitted for all papers. Information on local accommodations can be obtained from David A. Manuwal, College of Forest Resources, University of Washington, Seattle, Washington 98195.
1975 Annual Meeting - Symposium Outline

A symposium outline for the 1975 annual meeting has been tentatively agreed upon by the Executive Council. The symposium committee is composed of Daniel W. Anderson, Chairman; J. Michael Scott, Cochairman; James C. Bartonek, George J. Divoky, David A. Manuwal and Ralph W. Schreiber. We hope to publish this symposium, providing adequate funds can be obtained. We thus request high-quality papers of either a specific nature or review articles. We are currently contacting authors and sponsors, but request also the comments and offers to give papers from our membership. Any persons wishing to present a paper relating to any of the topics below are asked to respond. Suggested changes and additions, offers to give papers, and any other comments may be mailed to D. W. Anderson, P. O. Box C, Davis, CA 95616 before 15 December 1974. The symposium outline is as follows:

Title: The Status and Conservation of Eastern Pacific Seabirds.

I. Population and Distributional Changes in Oceanic Avifauna as Related to Natural Phenomena.

1. Oceanographic changes in the Pacific and the distribution of pelagic fishes.
2. Seabird distribution and population change on the Pacific Coast as affected by oceanographic changes.
3. Meteorological factors in North Pacific seabird distribution.
4. Food resources as determinants of seabird populations.

II. Conservation Problems--Real and Potential.

1. Interactions with humans--direct and indirect.
   A. The Pacific Coast, case histories of human exploitation.
   B. The effects of human visits on breeding seabirds, intentional and unintentional.
   C. Introduced animals, the effects on breeding seabirds.
   D. Coastal development problems.
   E. Fishery-seabird interactions, Peru--A case history.
   F. An analysis of fishery-seabird interactions.

2. Oceanic Pollution.
   A. Foreign chemicals in eastern Pacific ecosystems.
   B. Oil spills and related problems on the Pacific Coast.

III. Specific Conservation Problems--Programs and Proposals.

1. Immediate concerns in seabird preservation--endangered species and threatened areas.
2. Baja California, Gulf of California action plan.
3. State/provincial and federal refuge and protection systems, status and needs.
   A. Legislation, treaties, and policy protecting seabirds and offshore islands.
      1. United States.
      2. Canada.
      3. Mexico.
   B. National Wildlife Refuge system for offshore islands.
   C. Canadian systems of seabird conservation.
   D. State/provincial conservation needs and protection systems for seabirds.
      1. California.

IV. General Discussions.

2. Resolutions and Recommendations.

Pacific Seabird Group Bulletin

Response to the first Bulletin has been gratifying. Many people have expressed surprise at the number of research projects being conducted and the quantity of people who have joined the Group. While the first two Bulletins have performed a very useful function by letting people know what is being done in seabird research and who is doing it, the future direction of the Bulletin is uncertain. Research on seabirds is not initiated often enough to warrant the issuing of two Bulletins a year if reporting research is to be the primary function of the Bulletin. Bulletin format may be expanded in the future to include more thorough reports on research, detailed articles on conservation issues, a larger literature review section and articles on field techniques. The frequency and content of the Bulletin will be discussed at the annual meeting in Seattle. Those people wishing to express their views but unable to attend the meeting are urged to write the Secretary.

Regardless of the future direction of the Bulletin a number of items are needed for the next issue. Members are asked to submit articles on conservation issues, either local or world-wide; reviews, summaries, and translations of foreign language seabird papers; and reports on the activities of groups involved in seabird research and conservation. Since many PSG members cannot attend the annual meeting, the Bulletin is the primary avenue by which the Group will achieve its goal of increasing the flow of information among seabird enthusiasts. This goal can only be reached if members voice
their opinions on Bulletin format and then use the Bulletin as a means of communicating with others interested in seabirds.

**Colonial Nesting Waterbird Project**

The National Audubon Society and the Cornell Laboratory of Ornithology are initiating a joint project on colonial nesting waterbirds. The first stage of the project will be to compile an inventory of breeding colonies with estimates or counts of the number of each species in the colony. The study will later be extended to provide calculations of breeding success in some colonies. The program will cover all of North America and Central America as far south as Panama. The data provided by such a survey will provide useful information on status and distribution, long term population trends, and the possible effects of environmental changes.

The goals of this project closely parallel the objectives of the PSG's Working Committee on Colony Censusing and ways in which the PSG can collaborate with the project are being investigated. Directing the project are Dr. Alexander Sprunt, Research Director of the National Audubon Society and Dr. David B. Peakall, Director of the North American Nest Record Program. Persons involved in censusing colonial nesting waterbirds are urged to contact Dr. Peakall at the Cornell Laboratory of Ornithology, 159 Sapsucker Rd., Ithaca, New York 14850.
REGIONAL REPORTS

The following reports contain a listing of current and recently completed research not included in the first number of the PSG Bulletin. Persons knowing of research projects or conservation issues that have not yet been included in the regional reports should contact the appropriate regional representative.

Alaska

Current Research

National Marine Fisheries Service (Marine Mammal Division, Naval Support Activity, Seattle, WA 98115)

1. Feeding interactions of northern fur seals and seabirds in the southeastern Bering Sea. 48 birds of 22 species were collected in 1974. Principal Investigators: Hiroshi Kajimura and Gerald A. Sanger.

2. Offshore food habits of seabirds in the central Aleutian Islands. Analysis of 77 stomach samples from seabirds collected by an experimental salmon gillnet study.

3. Ongoing analysis of pelagic seabird observations from 1967 to present, from a broad area of the North Pacific extending from California into the Gulf of Alaska and westward into the Aleutians and Bering Sea. Currently analyzing data for the Tufted Puffin. Principal Investigator for above two studies: Gerald A. Sanger.

U. S. Fish and Wildlife Service (Aleutian Islands National Wildlife Refuge, P. O. Box 5251, Adak, AK 90879)

Breeding biology of the Aleutian Canada Goose. The only remaining population breeding in the wild is being studied on Buldir Island. Birds raised in captivity are being released on Agattu Island in the hopes of establishing a breeding population. Principal Investigator: G. Vernon Byrd.

U. S. Fish and Wildlife Service (Izembek National Wildlife Range, Pouch 2, Cold Bay, AK 99571)


University of Lethbridge (Dept. of Colloquium Study, Lethbridge, Alberta T1K 3M4)

1. Research into the normal behavioral response of the Pacific Brant to its breeding habitat. Phase One: the nesting ecology of the Pacific Brant on the Yukon-Kuskokwim Delta, Alaska.
2. The interrelationship of Pacific Brant and the Black Turnstone on the Kashunuk River, Alaska.  
Principal Investigators: John Eisenhauer and Jim Heather.  
Regional representative for Alaska - George J. Divoky.

British Columbia

Current Research

No new research has been reported.

Personnel Changes

David Hatler has recently been hired as a wildlife biologist by the British Columbia Department of Recreation. He will cover north coastal British Columbia and the Queen Charlotte Islands. Although his plans are not yet finalized, seabird censuses and inventories may be part of his duties.

Regional representative for British Columbia - Spencer G. Sealy.

Washington

Current Research

There are no new studies since the first report in January, although Manuwal (U. Wash.) is organizing a beached bird survey that will cover selected localities in Puget Sound, the San Juan Islands, Strait of Juan de Fuca, Vancouver Island, and the Olympic coast.

Conservation Notes

Protection Island. The Nature Conservancy and the Washington State Game Department have entered into an agreement with the developer of Protection Island to purchase the last undeveloped portion of the island. This parcel of 47 1/2 acres includes the west side where the largest part of the Rhinoceros Auklet colony exists and a narrow sand spit important to harbor seals. The big question now is whether the property owners surrounding this parcel will be prohibited from having dogs and cats.

Personnel Changes

Rex VanWormer, refuge biologist for the Willapa Bay National Wildlife Refuge, and Washington Islands National Wildlife Refuge, has been transferred to the Bureau office in Boise, Idaho. It is unfortunate that Rex was transferred since he has taken an active interest and cooperated in seabird studies on the coast of Washington. His biologist
position at Willapa is being discontinued. All administrative and biological responsibility for seabird colonies in Washington now lies with Mr. Joseph Weich, Refuge Manager, Willapa Bay NWR. It is hoped that this is not a developing trend for the deemphasizing of biological research in the U. S. Fish and Wildlife Service; the refuge branch in particular.

Rex was the local contact in the event of a seabird disaster on the Olympic coast. Manuwal (206-543-2740) is now the local contact for that area.

Regional representative for Washington - David A. Manuwal.

Oregon

Current Research

No new research has been reported.

Personnel Changes

J. Michael Scott, formerly of Oregon State University, has accepted a position in Hawaii as a research biologist for the U. S. Fish and Wildlife Service. Mike was the local contact in the event of a seabird disaster on the Oregon coast and Wayne Hoffman (503-754-1128) will now assume those duties.

Regional representative for Oregon - J. Michael Scott.

Northern California

Current Research

California Department of Fish and Game (Marine Technical Information Center, 350 Golden Shore, Long Beach CA 90802)
Seabird observations in the California current. Seabird observations are made from research vessels and included in the annual data report "California Cooperative Oceanic Fisheries Investigations". Copies of the reports can be obtained from the Center's librarian.

Regional representatives for northern California - David G. Ainley and M. D. F. Udvardy.

Southern California

Current Research

University of California, Irvine (Dept. of Population and Environmental Biology, Irvine, CA 92664)
1. Colony size and distribution of cormorants in the Channel Islands.
2. Colony structure and anti-predatory behavior in Double-crested and Pelagic Cormorants on Mandarte So., British Columbia.
3. Significance of timing of breeding and nest-spacing in Glaucous-winged Gulls.
5. Food habits of Western Gulls on Santa Barbara Island.
7. Food size selection by Black Oystercatchers.
8. The cause and significance of supernormal clutches in Western Gulls.
9. Colony structure and foraging strategies of two species of gulls in the Gulf of California.
10. Comparative study of taxonomic methodologies as applied to Pacific Coast gull populations.
   Principal Investigator: George L. Hunt, Jr.

San Diego Natural History Museum (P. O. Box 1390, Balboa Park, San Diego, CA 92112)
1. Studies of human disturbance to nesting Brown Pelicans off the northwest coast of Baja California.
   Principal Investigator: J. R. Jehl, Jr.

National Marine Fisheries Service (Southwest Fisheries Center, 8604 La Jolla Shores Drive, P. O. Box 271, La Jolla, CA 92037)
1. Pelagic seabird observations from cooperating tuna boats in relation to tuna-dolphin schools.
2. Pelagic seabird observations relating to albacore ecology in the northeast Pacific, coastal waters to 145ºW.

Conservation Notes

Offshore Oil Development. In the near future, there will be an almost certain increase in offshore oil development due to our national policy for increased independence in oil supply. Many natural areas and associated wildlife species off the West Coast are likely to soon be subject to potential disasters and decimations previously unexperienced. Basic information such as population sizes, natural rates of mortality, food habits, and other ecological data are not even available on many species off the West Coast, despite the fact that assessments of real or potential effects of offshore oil development will be needed in the near future. Thus it seems imperative that governmental agencies as well as educational institutions begin immediately diverse and basic studies of seabirds off the Pacific Coast, so that the definition of eventual problems encountered with offshore development will be more than speculative after-the-fact determinations.
New Coastal Wildlife Refuge. A new 800-acre National Wildlife Refuge has been recently established on the Seal Beach Naval Station on the southern California coast, the Fish and Wildlife Service recently announced. This refuge is but a small part of an even smaller remnant of natural California salt marsh and estuary area. Most of such areas are already gone and much more of the remaining habitat needs to be permanently preserved.

Regional representative for southern California - Daniel W. Anderson.

Mexico

Current Research

Departamento de la Fauna y Silvestre (Aquiles Serdan # 28-7-piso, Mexico 3, D. F., Mexico)
Life history studies of the Heermann's gull and Elegant Tern on Isla Raza, Gulf of California (not conducted in 1974 due to lack of funds).
Principal Contact: Sr. Mario Luis Cossio, Director General de la Fauna Silvestre.

Instituto Nacional de Pesca (Departamento de Recursos Pesqueros, Chiapas 121, Mexico 7, D. F., Mexico)
Oceanographic studies, fisheries statistics, and ecological studies relating to fisheries - many reports available in Spanish. Continuing research.
Principal Contact: Sr. Luís Kasuga Osaka, El Director General de I.N.P. Contact for reports: Instituto Nacional de Pesca, Biblioteca, Av. Cuauhtemoc 80, Mexico 7, D. F., Mexico.

Conservation Notes

Raza Island, Gulf of California. Prior to 1974, the Mexican government had stationed biologists on Isla Raza during the breeding season to conduct research on and to protect the Heermann's Gulls, Elegant Terns, and Royal Terns that nested there. Principal outside financial aid for this project was provided by the Arizona-Sonora Desert Museum. Isla Raza is presently the only seabird sanctuary in the Gulf of California. The island is well-known and attracts many tourists and tour groups; in addition, the island has historically been eyed upon (and "hit" when the opportunity arose) by egg-gatherers. Thus, continued protection has been necessary. In 1973, the breeding attempts on Raza all failed due to anomalous oceanographic conditions; but early in 1974 there were signs of improvement. Unfortunately, no wardens patrolled the island in 1974 and many visitors came up to watch and photograph nesting birds. 1974 was not an excellent productivity-year for Heermann's Gulls on Raza, but human disturbances
seemed to compound an already tenuous situation. For example, on an undisturbed island to the north, the percentage of young-of-the-year (percentage of total birds present in the colony) was 16 per cent. Undisturbed or lightly disturbed areas on Raza yielded about 12-15 per cent young, and areas of known heavy disturbance on Raza yielded less than 5 per cent young. It thus seems necessary that to maximize the protection of Raza Island, regular, yearly patrols are needed there.

Cooperation with Proper Authorities Regarding Research in Mexico. Besides the problems created by tourists and educational-scientific tour groups, much research in Mexico by well-meaning scientists is conducted without regard to the Mexican authorities, especially regarding the collecting of specimens. Most bird species are protected by international agreement under migratory bird conventions or recent legislation on endangered species. Proper courtesy by U.S. scientists will result in better international relations and less trouble for future researchers, despite the little amount of extra effort and "red-tape" required. Several points might be stressed:

1. cover all research projects with properly authorized collecting permits,
2. inform the Mexican authorities ahead of time (minimum of 4-6 months) to avoid last-minute delays, and,
3. send these authorities timely copies of reports and publications regarding research results.

The Departamento de la Fauna y Silvestre (address above) is the contact in Mexico for research coordination. These authorities are very much interested in cooperating in and encouraging research on seabirds (and other wildlife, for that matter). Unfortunately, the major deterrent to these authorities now in protecting non-game wildlife and conducting research is the lack of funds - the problem is acute. U.S. scientists and organizations can encourage financial aid to and participation by Mexican biologists on research projects. After all, many of the seabird conservation problems in the Gulf of California (for example) are related to problems created by Americans in Mexico - and thus our responsibility in part.

Temporary regional representative for Mexico - Daniel W. Anderson.

Hawaii

Current Research

U. S. Fish and Wildlife Service (337 Uluniu St., Kailua, HI 96734)
1. Status, abundance and distribution of the seabirds of the Hawaiian Islands National Wildlife Refuge. Continual
monitoring of populations in the leeward Hawaiian Islands.

   Principal Investigator: Palmer C. Sekora

Conservation Notes

Refuge Regulations. The Hawaii State Division of Fish and Game is currently revising its regulations covering island refuges off Oahu to improve protective status and reduce damage by unauthorized visitors.

Temporary regional representatives for Hawaii - Palmer C. Sekora and Robert J. Shallenberger.
THE INTERNATIONAL BIRD RESCUE RESEARCH CENTER

by

David C. Smith, Director of Research, IBRRRC, 2701 Eighth St.
Berkeley, CA 94710

Our Center studies methods of rehabilitating seabirds, be they oiled, injured, orphaned, or ill. The rehabilitation of these birds is often more romantic than it is beneficial to seabird populations. There are, however, three major ways in which our work is of definite benefit.

First, and most important, is the research made possible by our holding seabirds in captivity. Gaviiformes and Podicipediformes (loons and grebes) are two groups that are rarely held in captivity, yet our Center usually has several representatives of these orders at any one time. We usually have alcids as well. Our ability to maintain these birds in good health improves continually. We share this practical expertise with researchers who wish to build their own facilities and we invite researchers to use our facilities for well-defined studies.

We band more loons and grebes than anyone else on this continent; freely admitting, however, that birds banded by us are less likely to behave as normally as birds captured expressly for the purpose of banding. Some obviously have thrived. For example, a Western Grebe was shot by a hunter approximately 600 miles from banding location two years after we cleaned oil from its plumage and released it.

Secondly, it is conceivable that the information and experience we are gaining with respect to physiology and husbandry of seabirds as well as to rehabilitation of oiled seabirds may, someday, be crucial in saving a significant portion of a seabird colony. Essentially all of the thousands of seabirds affected by the Torrey Canyon Spill died because of the lack of knowledge and experience available at the time. A very large portion of them were from a single colony. With the current state of the art, we can rehabilitate up to 60 per cent of alcids, 75 percent of grebes, and 90 percent of gulls caught in an oil spill. Unfortunately, our ability to rehabilitate loons and tube-nosed birds lags far behind.

Thirdly, we are responsible in a small way for increasing the public's awareness of seabirds. Many of our failures have gone to museum collections to be stuffed and mounted for display. Some of our crippled seabirds have been put on
display at zoos so that the public may see an indigenous species. Most zoos (with a few notable exceptions) concentrate on exotic species resulting in the public's total ignorance of the existence, and hence the need for protecting, local species of seabirds.

Our work is not as important as protecting seabird habitats and perhaps never will be. Yet we are helping to fill gaps in the knowledge of seabird biology, learning how to ameliorate damage to seabird populations caused by oil pollution, and helping to promote public awareness of seabirds. With the augmented informational exchange made possible by the formation of the Pacific Seabird Group, our progress and effectiveness can only be enhanced.
RECENT LITERATURE

MARINE BIRDS AND THE BIOLOGICAL STRUCTURE OF THE OCEAN.
V. P. SHUNTOV. 1972. TINRO, Vladivostok, U.S.S.R. 376
pages, 73 figs., 37 tables. (In Russian)

The first issue of the PSG Bulletin contained transla-
tions of the chapter titles of this work. Recently various
people have had parts of the book translated. The portions
of the book that have been translated are listed below with
the name of the person who initiated the translation given
in parentheses.

Chapter I. Notes on the distribution of different species
of marine birds.
Section 1. North Pacific Albatrosses (M. T. Myres;
C. Yeshner)
Section 5. Slender-billed and Sooty Shearwaters
(M. T. Myres)
Section 6. Northern Fulmar (M. T. Myres)
Section 7. Black-legged Kittiwake (M. T. Myres)
Section 9. Tufted Puffin (G. A. Sanger)

Chapter II. Seasonal aspects of the ornithofauna in
various areas of the Pacific and Indian Oceans.
Section 1. Bering Sea (M. T. Myres)
Section 4. North Pacific Ocean (north of 30°N) (M. T.
Myres)

Chapter IV. Distribution of birds in relation to inter-
specific competition for food. (F. G. Cooch
and K. Vermeer)

Chapter VI. Quantitative distribution of sea birds and
the biological structure of the ocean. (F. G.
Cooch and K. Vermeer)

Tables 1-37 and Figures 1-58 (M. T. Myres)

A copy of the translated introduction and table of contents
are available from the Natl. Marine Fisheries Service by contact-
ing Milton Rose, NOAA Translation Program, Office of Intl.
Fisheries, NMFS, NOAA, U. S. Dept. of Commerce, Washington,
D. C. 20235.

Further efforts to translate the book are being coordinated
by Gerald A. Sanger, NMFS, Marine Mammal Division, NSA Bldg.
192, Seattle, WA 98115. People planning to initiate trans-
lations are urged to contact him so that no duplication of
efforts occurs. Progress in translating the remaining portions
of the book will be reported in future Bulletins.

The book contains the articles summarizing the material on hydrology, hydro-chemistry, phyto- and zooplankton and marine colonial birds collected by the Murmansk Marine Biological Institute expedition during August of 1967. The main purpose of these investigations is to give characteristics of the conditions that caused high biological production ensuring nourishment of numerous sea birds. Also analyzed is the inverse connection of birds with marine biocenosis - the influence of water fertilization by bird excrements upon water biological productivity. Data are given on the distribution of biogenic elements, phyto- and zooplankton in the region of Arkhangelsk Bay and Vilkitsky Gulf of Novaya Zemlya. Revision of the number of marine colonial birds is carried out in this region. Also given are the characteristics of the feeding connections of Little Auks (Plotus alle) with a pelagic association. The book contains original material characterizing a scarcely explored region and throwing light on some regularities of the circulation of organic matter in the sea. (Author's summary)

Chapter titles are:

Peculiarities of hydrological conditions near bird's bazaars in the north of Novaya Zemlya.
Alkalinity and alkaline coefficient of the coastal waters in the north of Novaya Zemlya.
Some data on carbon dioxide pressure in coastal waters of the north of Novaya Zemlya.
Peculiarities of biogenic element distribution near bird's bazaars in the north of Novaya Zemlya.
Phytoplankton in bird's bazaars of Novaya Zemlya.
Biology and the feeding connections of Little Auks (Plotus alle) with a pelagic association in the north of Novaya Zemlya.
The bird's bazaars in the north of Novaya Zemlya.
Peculiarities of zooplankton distribution and its productivity near bird's bazaars in the north of Novaya Zemlya.
Request for Skeletons

The Australian Seabird Group is seeking seabird skeletal material to build up its reference collection for identification of beached birds and remains found in prehistoric deposits. Anyone interested in exchanging skeletal material with them should contact Jerry van Tets, CSIRO, P. O. Box 84, Lyneham, Canberra, A.C.T. 2602, Australia.

Movie for Sale

Ahuimanu Productions has recently completed a 25-minute, color, 16 mm, sound film entitled "Manana, Island of Birds". The film tells the story of an entire nesting season and covers the Sooty Tern, Noddy Tern and Wedge-tailed Shearwater in detail. Conservation issues of importance to the island are discussed. The film was produced by Walter Arnell and Robert Shallenberger. Parties wishing to purchase the film should contact Ahuimanu Productions, P. O. Box 116, Kailua, Hawaii 96734.

Request for Information - Removing Petroleum from Birds

Entech Environmental Consultants Ltd. intends to become involved in an oiled waterfowl and marine bird program on the west coast of British Columbia. They hope to develop an effective method of removing petroleum products from bird feathers. Information on the subject is currently being compiled and persons wishing to contribute should contact W. G. Biggs, Entech Environmental Consultants Ltd., Coal Harbor Wharf, North Ft. Cardero St., Vancouver 5, B.C.

Request for Information - Gull and Tern Colonies on Roofs

Gull and tern colonies situated on roofs have been reported from a number of localities in North America. This past spring a survey of Least Tern colonies on the Atlantic coast revealed several roof top colonies in southern Florida. An attempt is being made to determine how common such colonies are. Anyone knowing of a gull or tern colony located on a roof top is urged to contact Mrs. Bradley Fisk, 17101 S.W. 284 St., Homestead, FL 33030.

Request for Information - Sightings of Marked Brown Pelicans

From 1970 through 1974, other researchers and I have banded and color-marked juvenile Brown Pelicans. During that time 6400 birds have been tagged from Sinaloa to California. Each colony has a color-coded streamer (some worn out by now), and each year-class has a different type of marker placement. These birds could be seen anywhere on the Pacific Coast from Central America to British Columbia, and I ask for your reports. Each bird has at least a USFWS band, and usually
all or parts of a leg streamer. If one of these birds is seen, I wish the following information: 1) type and color of marker and which leg it is on, which leg(s) the band is on, band number if possible without injury or molestation of the bird, band and marker if the bird is dead; 2) date and location of the sighting; and 3) any other information you consider of importance. Photographs of marked birds would be highly useful; also photographs of loafing groups are much appreciated and helpful. If you find a dead, banded pelican save the carcass or at least the skull (we are seeking known-age specimens from natural mortalities). Under new laws it is illegal to possess whole specimens or parts of endangered species (the Brown Pelican is on the list), but the materials can be turned over or reported to a state or federal game warden with explicit instructions that I want them for official research. I would appreciate a phone call if a specimen is found (if necessary, call collect 916-756-1946 in Davis, CA). I also want fresh carcasses of pelicans found dead along the coast. These will need to be frozen, properly labelled and an appropriate warden plus myself notified. Streamer colors used which represent different pelican colonies are: white, light blue (lavender), orange, pink (probably all gone by now), light green, dark green, black, and dark blue. I will answer all responses, so please write or contact me. Daniel W. Anderson, U. S. Fish and Wildlife Service, Post Office Box C, Davis, CA 95616.
PACIFIC SEABIRD GROUP
MEMBERSHIP LIST

The following is a list of persons who have joined the PSG since the first PSG Bulletin was issued. The list includes the member's occupation and studies and/or interests relating to seabirds.

George Alderson
323 Maryland Ave. N.E.
Washington, DC 20002

Director of Federal Affairs, The Wilderness Society

Interests: Conservation of seabirds and their habitat. Consideration of wilderness designation for seabird nesting areas.

Robert Arbik
226 Guion Dr.
Mamaroneck, NY 10543

Editor, American Birds

Studies: Survival of certain alcids and other seabirds during glacial epochs.
Interests: Distribution, migration, populations and identification.

Range Bayer
Dept. of Zoology
Oregon State University
Corvallis, OR 97330

Graduate Student

Studies: Feeding ecology of estuarine Great Blue Herons.
Interests: Feeding ecology and behavior, especially with respect to seasonality.

John A. Bean
1105 Spear Ave.
Arcata, CA 95521

Student

Brian D. Bell
Wildlife Service
Dept. of Internal Affairs
Private Bag
Wellington
New Zealand

Senior Fauna Conservation Officer

Studies: Breeding distribution

James and Susan Bergens
242 Sierra Vista
Ridgecrest, CA 93555

Students

Alice B. Berkner
Int'l. Bird Rescue Research Center
2701 8th St.
Berkeley, CA 94710

Executive Director, IBRRC

Interests: Ethology of alcids and grebes

Frances Berto
70 Crane Drive
San Anselmo, CA 94960

Student

Interests: Gulls and terns.
Stephen W. Bradley  
Dept. of Zoology  
University of Alberta

Kenneth T. Briggs  
Dept. of Biology  
University of California  
Santa Cruz, CA 95064

Robert L. Brownell, Jr.  
Div. of Mammals  
Natl. Museum of National History  
Smithsonian Institution  
Washington, DC 20560

Einar Brun  
P.O. Box 66  
N-9100 Kvaløysletta  
Norway

Slader Buck  
23155 Dolorosa  
Woodland Hills, CA 91364

Elizabeth F. Cary  
Smith College  
Northampton, MA 01060

Roger B. Clapp  
Bird and Mammal Laboratories  
Natl. Museum of Natural History  
Washington, DC 20560

Student

Interests: Monitoring prey populations with respect to avian predators.

Graduate Student


Zoologist

Studies: Research on trophic relationships within marine bird and mammal food webs.

Professor


Student

Interests: Relationship of seabirds to estuary ecology.

Student

Studies: Homing experiments with Leach's Storm-petrel. Interests: Population dynamics.

Museum Specialist and Biologist

Studies: Distribution, abundance, dispersal and breeding regimes of central Pacific seabirds.
Mario Luis Cossio  
Departamento de la Fauna y Silvestre  
Aquiles Serdan #28  
Mexico, D.F.  
Mexico  

Malcom Clarke Coulter  
Point Reyes Bird Observatory  
P. O. Box 321  
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Ian McTaggart Cowan  
Dept. of Zoology  
University of British Columbia  
Vancouver, BC V6T 1R5  

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21 McMillan Ave.  
Kamo, Northland  
New Zealand  

Rolph Davis  
LGL Ltd., Environmental Research Associates  
Suite 414  
44 Eglinton Ave. W.  
Toronto, Ontario M4R 1A1  

Michael J. DeKeyrel  
995 Isabella Ave.  
Monterey Park, CA 91754  

William H. Drury  
173 Water Row  
Sudbury, MA 01776  

David C. Duffy  
Quincy House  
Harvard College  
Cambridge, MA 02138  

Wildlife Administrator  

Interests: The conservation of Mexican wildlife, including seabirds.  

Graduate Student  

Studies: Gulls-clutch size, eggs, chick behavior, dispersal.  

Professor  

Interests: Distribution and competition or resource use strategy. Ecology of the Alcidae.  

Adviser on Science, Auckland Education Board  

Studies: Patrols to recover beached birds. Observations of birds at sea. Location of breeding colonies of rare seabirds. Interests: Tape recordings of calls and banding Procellariiformes.  

Consulting Ecologist  

Studies: Distribution of seabirds in the arctic islands of Canada. Interests: All aspects of distribution, ecology and population dynamics.  

Student  

Studies: Distribution and behavior. Interests: Conservation of seabird habitat.  

Research Biologist  

Studies: Breeding success, numbers and movements.  

Student  

David D. Dunatchik  
P. O. Box 537  
Makawao, HI  96768

John Eisenhauer  
Colloquium Study  
University of Lethbridge  
Lethbridge, Alberta T1K 3M4

F. R. Fosberg  
Smithsonian Institution  
Washington, DC  20560

David A. Frazer  
1356 S. Shelton  
Seattle, WA  98108

Robert Gill, Jr.  
P. O. Box 368  
Suisun, CA  94585

Patrick J. Gould  
NUS Corporation  
1910 Cochran Rd.  
Pittsburgh, PA  15220

Thomas C. Grubb, Jr.  
Dept. of Zoology  
Ohio State University  
Columbus, OH  43210

Park Ranger - Haleakala Natl. Park  
Studies: Assist with annual Dark-rumped Petrel burrow surveys in Haleakala Natl. Park.

Graduate Student  
Studies: Breeding ecology of the Pacific Brant in Alaska.  
Interests: Avifauna of the North Pacific with particular interest in effects of oil and other development.

Botanist and Ecologist  
Interests: Birds of coral atolls.

Graduate Student  
Interests: Population structure, reproductive cycles and behavior of alcids.

Wildlife Biologist  
Studies: Bimonthly counts on Monterey Bay over fixed transects.  
Interests: Seasonal distribution and abundance of California coastal pelagics.

Ornithologist  
Studies: Seabirds of the tropical and subtropical Pacific Ocean.  
Interests: Ecological and behavioral adaptations and interactions of birds over the open ocean.

Professor  
Studies: Orientation and navigation of Leach's Storm-petrels.  
Olfaction in storm-petrels and shearwaters.  
Interests: All aspects of behavioral ecology.
Sigurd Halvorsen  
N-4260 Torvastad  
Norway

Student

Studies: Past work with Waved Albatross on Galapagos Islands and Laysan and Black-footed Albatross on Midway Islands.
Interests: Albatrosses, larids and alcids.

Judith Latta Hand  
Biology Dept.  
University of California  
Los Angeles, CA  90024

Graduate Student

Studies: Zoosemiotics, principally auditory communication in the Laridae.

Charles A. Harper  
Bechtel Corporation  
P. O. Box 3965  
San Francisco, CA  94598

Environmental Consultant

Studies: Breeding ecology of Western Gull.

Brian Harrington  
Manomet Bird Observatory  
P. O. Box 0  
Manomet, MA  02345

Biologist

Interests: Population regulation and breeding ecology.

Ken Harrington  
1198 Oasis St.  
Arcata, CA  95221

Student

Studies: Bird use of lagoons in Humboldt County, California
Interests: Cormorant biology and distribution.

Minekiyo Hasegawa  
No. 205, 5-5-16  
Image Kaigan  
Chiba City  
Chiba Prefecture 281  
Japan

Navigator for Fisheries Agency of Japanese Govt.

Interests: Watching and photographing seabirds encountered during navigation in the high seas.

David F. Hatler  
British Columbia Fish and Wildlife Branch  
P. O. Box 158  
Smithers, B. C.  VOJ 2NO

Wildlife Biologist

Studies: Inventory studies, Pacific Island, B. C.
Interests: Ecology and distribution requirements relative to potentially, disturbing land uses such as coastal logging.
Michael Holst  
4970 Elmwood Dr.  
San Jose, CA 95130

Graduate Student

David W. Houseworth  
U.S. Fish & Wildlife Service  
P. O. Box 569  
Ketchikan, AK 99901

Fishery Biologist
Studies: Coastal zone studies in southern southeast Alaska. Interests: Effects of habitat change on bird use of estuaries, coves, bays, etc.

Joel D. Hubbard  
120 S. 35th St.  
Boulder, CO 80303

Graduate Student

Carl L. Hubbs  
Scripps Institution of Oceanography  
La Jolla, CA

Professor
Studies: Collaborating with Joseph R. Jehl, Jr. of the San Diego Natural History Museum. Interests: Distribution of seabirds and of landbirds wandering over the sea.

Philip S. Humphrey  
Museum of Natural History  
University of Kansas  
Lawrence, KS 66045

Professor and Director of Museum of Natural History.
Studies: Formerly Principal Investigator of the Smithsonian Institution's Pacific Ocean Biological Survey Program. Interests: Encouraging continued publication of the results of the Pacific Ocean Biological Survey Program.

Charles E. Huntington  
Dept. of Biology  
Bowdoin College  
Brunswick, ME 04011

Professor and Director of Bowdoin Scientific Station, Kent Island
Munechico Iwata
238 Hamanaka-cho
Yoichi
Hokkaido
Japan

Biologist for Hokkaido Central Fisheries Experimental Station.
Studies: Functions of seabirds in marine ecosystem, especially energy consumption by seabirds.

H. Lee Jones
Dept. of Biology
University of California
Los Angeles, CA 90024

Graduate Student
Studies: Land and seabird populations on California Channel Islands.
Interests: Seabird distribution and abundance in California.

Robert D. Jones, Jr.
Pouch 2
Cold Bay, AK 99571

Refuge Manager
Studies: Black Brant population dynamics and migration.

Jon B. Jolly
5416 California Ave. S.W.
Seattle, WA 98136

Ocean Instrumentation

Sigeyuki Kawashima
V024-1, 3 Chome Nakaouchiai
Saijuku-ku
Tokyo
Japan

Student

Ronald W. Kay
1606 Gretel Lane
Mountain View, CA 94040

Student
Studies: Waterfowl and wetland habitat.
Interests: Habitat preservation.

Ken Kennedy
General Delivery
Qualicum Beach, B.C. V0R 2T0

Resident Naturalist
Studies: Survey work and banding.

Brina Kessel
Box 80211
College, AK 99701

Professor and Curator of Bird and Mammal Collections...
Interests: Biogeography, ecological and behavioral adaptations.

Eugene Kridler
835 Akuna St.
Kailua, HI 96734

U.S. Fish & Wildlife Endangered Species Coordinator, Pacific Islands.
Interests: Same as above but now emphasis on endangered forms and seabirds of other areas of central and western Pacific.
G. Donald Kucera  
7013 E. Kingston Dr.  
Tuscon, AZ  85710

Physics Engineering

Studies:  Distribution and life histories of seabirds in the Gulf of California with special interest in Isle San Jorge and Consag.

Fishery Biologist

Robert I. Lanse  
U.S. Fish & Wildlife Service  
P. O. Box 569  
Ketchikan, AK  99901

Studies:  Coastal zone studies in southern southeast Alaska.  
Interests:  Effects of habitat change on bird use of estuaries, coves, bays, etc.

Oceanographer

R. Michael Laurs  
Natl. Marine Fisheries Service  
Southwest Fisheries Center  
P. O. Box 271  
La Jolla, CA  92037

Studies:  Seabird-oceanographic-environmental relationships in open ocean areas.  
Interests:  Fish-bird relationships.

Graduate Student

Thomas R. Loughlin  
Dept. of Biology  
University of California  
Los Angeles, CA  90024


Research Ecologist

David Melville  
Agriculture and Fisheries Dept.  
Canton Rd. Government Offices  
393 Canton Rd.  
Kowloon  
Hong Kong

Wildlife Biologist

Jorge Enrique Mendoza  
Apartado Postal 743  
Hermosillo, Sonora  
Mexico

Studies:  Conservation and research activities on Gulf of California seabirds.

Biological Oceanographer

Eric L. Mills  
Dept. of Oceanography  
Dalhousie University  
Halifax, Nova Scotia  
Canada

Studies:  At-sea distribution and feeding ecology.

Research Biologist

Stan Moberly  
P. O. Box 901  
Ketchikan, AK  99901

Studies:  Herring research  
Interests:  Seabirds associated with Herring concentrations.
Keith A. Morehouse  
Inst. of Arctic Biology  
University of Alaska  
Fairbanks, AK  99701

Graduate Student

Studies: Doctoral dissertation concerns the energetics and nutrition of Pacific Brant  
Interests: Physiology and ecology.

Kazue Nakamura  
5-60.  
Minami-Naka Dori  
Naka-ku  
Yokohama  
Japan

Curator of Ornithology

Studies: Distribution and migration of seabirds, particularly the genus Pterodroma in the western North Pacific. Tropical seabirds drifted by typhoons.  
Interests: Evolution, breeding biology, geological distribution and interspecific relations.

I. C. T. Nisbet  
Massachusetts Audubon Society  
Lincoln, MA  01773

Environmental Biologist

Studies: Currently working on Common, Arctic, Roseate and Least Terns in Massachusetts.  
Interests: Breeding biology, feeding ecology, courtship and parental behavior, chemical pollution and effects of chemicals on eggshells and behavior.

David R. Nysewander  
College of Forest Resources  
University of Washington  
Seattle, WA  98195

Graduate Student

Studies: Study on Destruction Island encompassing the Black Oystercatcher, rocky intertidal shorebirds and ducks (Harlequin).  
Interests: Biology of Fork-tailed and Leach's Storm-petrel. Distribution and movements of all seabirds.

Harry M. Ohlendorf  
U.S. Fish and Wildlife Service  
Patuxent Wildlife Research Center  
Laurel, MD  20810

Research Biologist

Studies: Evaluating the effects of environmental pollutants on seabirds, particularly in Alaska at this time.
Storrs L. Olson
Division of Birds
Natl. Museum of Natural History
Smithsonian Institution
Washington, DC 20560

Zoologist
Studies: Systematic studies of several Tertiary seabird groups. Pleistocene changes in the seabirds of St. Helena.
Interests: Paleontology, evolution and zoogeography, particularly of Tertiary seabirds.

Elaine Payne
726 E. Laguna Ave.
Santa Maria, CA 93454

Student
Interests: Effects of pesticides on seabirds.

William F. Perrin
Natl. Marine Fisheries Service
Southwest Fisheries Center
8604 La Jolla Shore Dr.
La Jolla, CA 92037

Cetologist
Studies: Association of oceanic birds with multispecies aggregations of tuna and cetaceans in the eastern tropical Pacific.

Edward W. Pough
Dept. of Oceanography
University of Washington
Seattle, WA 98195

Chemical Oceanographer
Studies: Pelagic observations in the eastern tropical North Pacific.

C. John Ralph
Dept. of Biology
Dickinson, College
Carlisle, PA 17013

Professor
Studies: Breeding biology of Western Gulls and Cassin's Auklet.

Robin C. A. Rice
Dept. of Zoology
University of Texas
Austin, TX 78712

Graduate Student
Studies: Ecology, behavior, distribution and virus-vectoring capabilities of ticks infesting seabird colonies. Effects of tick feeding and tick-borne viruses on seabird mortality and morbidity.

Jon E. Rickert
122 N. Main St.
Elizabethtown, KY 42701

Attorney at Law
Interests: Distribution and habitat requirements.
Chandler S. Robbins  
U.S. Fish and Wildlife Service  
Migratory Bird and Habitat  
Research Laboratory  
Laurel, MD 20810  

Wildlife Research Biologist  
Studies: Distribution, migration 
and population dynamics of Laysan 
and Black-footed Albatrosses. 
Interests: Monitoring of populations.

Peter Roberts  
Fisheries Research-Division  
P. O. Box 19062  
Wellington  
New Zealand

Fisheries Biologist  
Studies: Coordinating of New Zealand 
Ornithological Society Beach Patrol 
Scheme for the Wellington region. 
Distribution in relation to pelagic 
fish schools.
Interests: Zoogeography

William B. Robertson, Jr.  
Everglades Natl. Park  
Homestead, FL 33030

Zoologist  
Studies: Population biology of 
oceanic terns and other tropical 
seabirds, particularly in the 
Atlantic Ocean.

Ronald A. Ryder  
Dept. of Fishery and Wildlife Biology  
Colorado State University  
Fort Collins, CO 80521

Professor  
Studies: Distribution, banding 
and movements. 
Interests: Economics - consumptive 
uses vs. non-consumptive uses.

Lonnie Schultz  
P. O. Box 78  
Cutten, CA 95534

Student

Douglas Schamel  
Dept. of Wildlife Management  
University of Alaska  
Fairbanks, AK 99701

Graduate Student  
Studies: Breeding biology of the 
Pacific Eider. 
Interests: Social systems and 
predator-prey interactions.

Joan Scott  
U. S. Forest Service  
P. O. Box 309  
Petersburg, AK 99833

Wildlife Biologist

Robert J. Shallenberger  
Ahuimanu Productions  
P. O. Box 1166  
Kailua, Oahu, HI 96734

Educational Filmmaker - Biologist  
Studies: Breeding behavior and 
olfactory homing in Procellariiformes, 
thermoregulation in terns and 
boobies and educational film- 
making of seabird colonies. 
Interests: Conservation of Hawaiian 
seabird colonies and natural 
history education.
Dana Shuford  
365 Valmore Ave.  
Ventura, CA 93003  
Wildlife Biologist

David C. Smith  
Intl. Bird Rescue Research Ctr.  
2701 8th St.  
Berkeley, CA 94710  
Director of Research, IBRRC  

Alexander Sprunt, IV  
Natl. Audubon Society  
115 Indian Mound Trail  
Tavernier, FL 33070  
Research Director  

Walter Stieglitz  
San Francisco Bay Natl. Wildlife Refuge  
Suite D  
3849 Peralta Blvd.  
Fremont, CA 94536  
Refuge Manager  
Studies: Studies are done under contract to Point Reyes Bird Observatory.  
Professor  
Interests: Ethology

John O. Sullivan  
Dept. of Biology  
Southern Oregon College  
Ashland, OR 97520  
Student

Bob Swanson  
4534-1/2 University Way N.E.  
Seattle, WA 98103

Frank S. Todd  
1720 South Shores Rd  
Mission Bay  
San Diego, CA 92109  
Bird and Mammal Curator  
Interests: Conservation and research of marine birds and mammals.

John L. Trapp  
U.S. Fish and Wildlife Service  
P. O. Box 5251  
Adak, AK 99695  
Wildlife Biologist  

John T. Vollertsen  
Apt. 1006-B  
2200 Fuller Rd.  
Ann Arbor, MI 48105  
Student  
Studies: Cladistic history of the alcids using a numerical approach.
Duff H. S. Wehle  
Dept. of Biology  
University of Alaska  
Fairbanks, AK 99701

Graduate Student
Studies: Research assistant with Massachusetts Audubon Society Tern Project.
Interests: Breeding biology and behavior of larids and alcids.

Derek Winstanley  
Environmental Systems Branch  
Environment Canada  
7th Floor Fontaine Bldg.  
Ottawa, Ontario K1A 0H3

Climatologist
Interests: Migration and population dynamics.

Robert E. Woodley  
1935 Hetrick Ave.  
Richland, WA 99352

Physical Chemist
Interests: Spatial and temporal distribution of pelagic birds in the northeastern Pacific Ocean.
PACIFIC SEABIRD GROUP

DEDICATED TO THE STUDY AND CONSERVATION OF PACIFIC SEABIRDS AND THEIR ENVIRONMENT

EXECUTIVE COUNCIL

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