Descriptive Summary

Languages: English
Contributing Institution: Special Collections & Archives, UC San Diego
9500 Gilman Drive
La Jolla 92093-0175
Title: Alpha Helix Program Management Office records
Creator: Scripps Institution of Oceanography. Alpha Helix Program Management Office
Identifier/Call Number: SAC 0007
Physical Description: 10 Linear feet(9 records cartons, 3 oversize folders, 1 map case folder, and 4 films)
Date (inclusive): 1962-1991
Abstract: The Alpha Helix Program Management Office records document the administration and activities of the Research Vessel Alpha Helix while under the management of Scripps Institution of Oceanography (SIO). The Alpha Helix Program was operated by SIO from 1966 to 1980.

Scope and Content of Collection

The Alpha Helix Program Management Office records document the administration and activities of the R/V Alpha Helix while under the management of Scripps Institution of Oceanography (SIO). The Alpha Helix Program was operated by SIO from 1966 to 1980.

The material reveals the advantages of working from a floating laboratory stationed in remote areas and capable of conducting research onsite. The close relationship between the researchers aboard the R/V Alpha Helix and the Program Management Office during the expeditions is made clear through the extensive correspondence, radio messages, and reports throughout the collection.

Arranged in three series: 1) ADMINISTRATIVE FILES, 2) OVERSIGHT COMMITTEES, and 3) EXPEDITIONS.

Administrative History

The R/V Alpha Helix was a National Oceanographic Research Facility of the University-National Oceanographic Laboratory System (UNOLS). It and was owned and operated by Scripps Institution of Oceanography (SIO) from February 1966 to January 1980. It was constructed and operated through National Science Foundation funding, administered by the Alpha Helix Program Management Office (PMO) at SIO, and, after its 1973 designation as a National Oceanographic Research Facility, scheduled by UNOLS.

In the late 1950s, SIO physiologist Per Fredrik Scholander envisioned a floating laboratory that would allow scientists to explore biological problems while at sea. In May 1961, Scholander submitted a proposal to the NSF, requesting support for the construction and operation of a biological laboratory ship and an accompanying shore facility. The proposal recommended that the ship be equipped with the innovative technology necessary to conduct biological investigations in any geographical region in the world. The NSF approved the proposal. The ship was designed by L. R. Glosten and Associates, and constructed by the J. M. Martinac Shipbuilding Corporation. Built with space for twelve crew members and a ten scientists, the ship was equipped to be capable of operating in both polar and tropical regions, and with laboratory, support, and habitation facilities. The R/V Alpha Helix was delivered to SIO in February 1966. Part of SIO's research fleet, it was maintained by the Marine Facilities Division and managed by the Ship Operations and Marine Technical Support Division (SOMTS).

SIO was designated a NSF research project office and was authorized to manage the Alpha Helix Program. The Program Director of SIO’s Physiological Research Laboratory (PRL) was delegated authority and responsibility for several matters related to the Alpha Helix Program by the SIO Director. The establishment and maintenance of any shore stations required as part of an expedition was subject to his approval. Whenever non-SIO personnel were directing operations aboard the R/V Alpha Helix, the PRL Director was expected to review their proposed operations closely and to halt any investigations which were unsafe or did not conform to local laws and regulations. Further, the PRL Director was authorized to assume control over operations if situations of international discord, violation of law, or hazardous conditions arose.

Overall guidance and administrative responsibility was assigned to the non-salaried Program Manager, who headed the Program as part of his paid SIO position's duties. Coordination of the Program was conducted by the PMO administrative staff, which consisted of the Program Manager, an Administrative Assistant, and two Marine Technicians. Walter Garey served as Program Manager from August 1970 to September 1976 in addition to his position as an SIO physiologist. Robert L. Fisher, Associate Director of SIO and head of SOMTS, succeeded Garey and headed the program as part of his Associate Director duties from December 1976 until August 1980.
The National Advisory Board of the Alpha Helix Program was established in 1964 as the committee in charge of program oversight. SIO Director Roger Revelle appointed each member in consultation with the NSF. Composed of prominent scientists from several American institutions, the Board selected the areas of operations for each calendar year and solicited proposals for research programs suitable for those geographical areas. The Board upheld program policies, assisted the PMO in reviewing proposals for use of the R/V Alpha Helix, and made recommendations to the director of SIO. A. Baird Hastings served as its first chairman.

In 1973, the R/V Alpha Helix was formally designated a National Oceanographic Facility within UNOLS by means of a three way agreement among UNOLS, the NSF, and SIO. At this time, the UNOLS Alpha Helix Review Committee (AHRC) committee was established. Seven members, including one scientist from SIO, were appointed by UNOLS and made recommendations to SIO. The AHRC was responsible for evaluating the scientific quality of preliminary proposals, assessing the suitability of projects to the use of the R/V Alpha Helix, selecting potential areas for cruises based on applicants' interests, and overseeing the scheduling and operation of the R/V Alpha Helix. First preference was given to NSF funded projects. After the NSF or other granting agency approved a proposal, the AHRC would group together compatible projects, create tentative cruise schedules, and appoint chief scientists.

The PMO was responsible for all administrative and logistical support for the researchers who used the ship. The Office participated in cruise planning, facilitated any pre-cruise workshops or site visits, and provided staff support for UNOLS and AHRC. During expeditions, the PMO managed the expenses of the vessel, participant travel arrangements, laboratory equipment, and supplies. The Office monitored the progress of scientific work during the expeditions, publicized the R/V Alpha Helix's activities, and ensured all reporting, specimen and data sharing, and publication commitments were met. After the expeditions, the PMO collected the abstracts of scientific work that were required of all chief scientists and other scientific members of the cruises. The PMO then submitted the abstracts to the National Advisory Board and the NSF, and prepared an annual report for UNOLS.

In March 1979, the AHRC asked UNOLS to appoint a committee to assess whether continued operation of the R/V Alpha Helix as a National Oceanographic Facility was justified, based on long term interest of the scientific community. The ad hoc Alpha Helix committee met in April 1979 and eventually recommended that the ship no longer be designated a National Oceanographic Facility after the conclusion of the currently planned and funded operations. UNOLS approved these recommendations in May 1979; the title of the R/V Alpha Helix was transferred from SIO to the NSF, and the NSF and UNOLS began to investigate possibilities for relocation of the ship to some other institution within the UNOLS system.

On January 9, 1980, the NSF transferred the title of the R/V Alpha Helix to the University of Alaska, Fairbanks (UAF). The ship's laboratories and equipment, designed in the early 1960s for biological studies, were modified to suit the more general oceanographic studies that were to be conducted by UAF until 2004. Today, after periods of dry dock and several changes in ownership, the R/V Alpha Helix is owned and operated by the CICESE Research Center in Ensenada, Mexico. She retains her name, and continues to be utilized for oceanographic research.

Preferred Citation
Alpha Helix Program Management Office records. SAC 7. Special Collections & Archives, UC San Diego Library.

Acquisition Information

OFF-SITE STORAGE
COLLECTION STORED OFF-SITE. ALLOW ONE WEEK FOR RETRIEVAL OF MATERIALS.

Publication Rights
Publication rights are held by the creator of the collection.

Restrictions
Original audiovisual material is restricted; researchers may request viewing and listening copies in advance of their visit.

Related Materials
Per Fredrik Scholander Papers, SMC 116. Special Collections & Archives, UC San Diego.
SIO Biographical Files, SAC 5. Special Collections & Archives, UC San Diego.
SIO Office of the Director Records, SAC 1. Special Collections & Archives, UC San Diego.
SIO Subject Files, SAC 6. Special Collections & Archives, UC San Diego.

Subjects and Indexing Terms
Scientific expeditions
Scripps Institution of Oceanography. Alpha Helix Program Management Office -- Archives
ADMINISTRATIVE FILES

Scope and Contents
Series 1) ADMINISTRATIVE FILES: Documents the administrative functions performed by the Alpha Helix Program Management Office, including cooperation with the National Science Foundation, host countries, and researchers. Materials include correspondence, information about the design and construction of the R/V Alpha Helix, manuals and policies, and grant proposals.

Arranged within three subseries: A) Administrative Files, B) R/V Alpha Helix Construction, and C) Proposals to the National Science Foundation.

Administrative Files

Box 1, Folder 1
Administrative and equipment grants circa 1978

Box 1, Folder 2
Alpha Helix Program account - Quarterly reports 1977-1979

General note
Includes expense summaries for six expeditions: Amazon I, Joint II, Amazon II, Amazon III, Amazon IV, Amazon V.

Box 1, Folder 3
Alpha Helix Program bibliography undated

Box 1, Folder 4
Alpha Helix Program brochure 1975

Box 1, Folder 5
Alpha Helix Program leadership 1979

Box 1, Folder 6-7
Alpha Helix Program participant index undated

Box 1, Folder 8
Alpha Helix Program publications index undated

Oversize FB-035, Folder 05
Alpha Helix reference library - Bibliography undated

Box 1, Folder 9
Chief Scientist's Manual 1977 July

Correspondence

Box 1, Folder 10-22
A through Z 1969-1976

General note
No correspondence is filed under the letters B through K, Q, or U.

Box 1, Folder 35
Films 1970-1975

Box 1, Folder 36
Faughn, James 1970-1975

Box 1, Folder 37-42
National Science Foundation 1968-1976

Box 1, Folder 43
Diving participant application 1978

Box 1, Folder 44
Maps of R/V Alpha Helix routes 1977-1980

Box 1, Folder 45
News releases 1967-1973

Box 1, Folder 46
Participant letters 1972-1978

Box 1, Folder 47
Per Fredrik Scholander 1980-1986

General note
Scholander secured the NSF grant to build the R/V Alpha Helix and helped design the ship's laboratory and mechanical facilities.

Photographs

Box 1, Folder 48
Miscellaneous expedition activities undated

Box 1, Folder 49
Scientists undated
<table>
<thead>
<tr>
<th>Box 1, Folder 50</th>
<th>Slides 1967-1978</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>General note</td>
</tr>
<tr>
<td></td>
<td>Includes a run of slides numbered 1 through 97 and a handwritten list of descriptions of each slide. Images include the ship in dock and on various expeditions, scientists at work, and flora and fauna.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Box 1, Folder 51</th>
<th>Alphelixia sicca 1972</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>General note</td>
</tr>
<tr>
<td></td>
<td>Portrait of a genus of giant cockroach named after the Alpha Helix.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Box 1, Folder 52</th>
<th>R/V Alpha Helix - Summary of expeditions FY 1974-75</th>
</tr>
</thead>
<tbody>
<tr>
<td>Box 1, Folder 53</td>
<td>R/V Alpha Helix - Ship time request pamphlets 1974-1977</td>
</tr>
<tr>
<td></td>
<td>General note</td>
</tr>
<tr>
<td></td>
<td>Pamphlets include ship design and facilities descriptions.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>General note</td>
</tr>
<tr>
<td></td>
<td>Per Scholander's annotated copy of a report requested by the National Science Foundation and prepared by the National Advisory Board for the R/V Alpha Helix.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Box 2, Folder 2</th>
<th>Transfer of R/V Alpha Helix to University of Alaska 1979-1980</th>
</tr>
</thead>
</table>

### R/V Alpha Helix Construction

<table>
<thead>
<tr>
<th>Box 2, Folder 3</th>
<th>Description of the R/V Alpha Helix undated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Box 2, Folder 4</td>
<td>Functional arrangement of the R/V Alpha Helix undated</td>
</tr>
<tr>
<td>Box 2, Folder 5</td>
<td>Photographs of the R/V Alpha Helix undated</td>
</tr>
<tr>
<td></td>
<td>General note</td>
</tr>
<tr>
<td></td>
<td>Images taken of the ship in dock and on expeditions. Includes photographs of the ship's laboratory facilities.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Box 2, Folder 6</th>
<th>Correspondence 1962-1967</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>General note</td>
</tr>
<tr>
<td></td>
<td>Includes discussion of the ship's proposed design and construction process.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Oversize FB-035, Folder 05</th>
<th>Preliminary Technical Specifications for Biological Research Vessel for Scripps Institution of Oceanography 1963 March 1</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>General note</td>
</tr>
<tr>
<td></td>
<td>L. R. Glosten and Associates.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Box 2, Folder 7-8</th>
<th>Bid and construction documents 1964-1966</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>General note</td>
</tr>
<tr>
<td></td>
<td>Captain James Faughn's binder. Includes specifications, change orders, and correspondence.</td>
</tr>
</tbody>
</table>

### Specifications

<table>
<thead>
<tr>
<th>Box 2, Folder 9</th>
<th>Specification for Physiological Research Laboratory 1964 January</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oversize SIO MC-079-01</td>
<td>Blueprints 1963-1964</td>
</tr>
<tr>
<td></td>
<td>General</td>
</tr>
<tr>
<td></td>
<td>Eight blueprints including preliminary lines, typical midship section, main deck and above, hold and bottom, outboard profile, and inboard profile.</td>
</tr>
</tbody>
</table>
Cold Lab for Physiological Research Laboratory 1966 June 20

List of addenda issued to date 1964 February 6

Bidder's conference minutes 1964 May 6

Construction photographs 1964-1966

General note
Taken by James L. Faughn at Tacoma, Washington.

Dedication ceremony - Slides 1966 March 11

General note
The R/V Alpha Helix, the R/V Thomas Washington, and the Scripps Marine Facility were dedicated at a large ceremony on March 11, 1966. The slides depict the assembly in front of the two research vessels.

Figurehead and name board 1966, 1989

The R/V Alpha Helix Story - Historical development 1967

Poems by A. Baird Hastings 1972-1976

Proposals to the National Science Foundation

Support for Physiological Research Ship, R/V Alpha Helix for September 1, 1968-June 30, 1970

Support for Physiological Research Ship, R/V Alpha Helix for July 1, 1970-December 31, 1970


Support for Research Program for Physiological Laboratory Ship, R/V Alpha Helix for July 1, 1970-June 30, 1972

Support for Physiological Research Ship, R/V Alpha Helix for January 1, 1971-June 30, 1971

Support for Physiological Research Ship, R/V Alpha Helix for July 1, 1971-December 31, 1971

Support for Physiological Research Ship, R/V Alpha Helix for January 1, 1972-December 31, 1972

Administrative and Support Functions of the R/V Alpha Helix Research Program for July 1, 1972-June 30, 1974

Operating Support for R/V Alpha Helix for July 1, 1972-December 31, 1972

Support of R/V Alpha Helix for June 1, 1973-December 31, 1973

Functional and Supporting Operations for Alpha Helix Research Programs for June 1, 1973-December 31, 1973

List of proposals for implementation aboard R/V Alpha Helix 1973-1974

List of proposals 1974 June

OVERSIGHT COMMITTEES

Scope and Contents

Series 2) OVERSIGHT COMMITTEES: The National Advisory Board of the Alpha Helix Program was established in 1964 as the committee in charge of program oversight. The University-National Oceanographic Laboratory System Alpha Helix Review Committee was established after the 1973 designation of the ship as a UNOLS National Oceanographic Facility.

Arranged alphabetically within two subseries: A) National Advisory Board of the Alpha Helix Program, and B) University-National Oceanographic Laboratory System Alpha Helix Review Committee (AHRC).

National Advisory Board of the Alpha Helix Program
<table>
<thead>
<tr>
<th>Box 2, Folder 30-31</th>
<th>Correspondence 1969-1973</th>
</tr>
</thead>
<tbody>
<tr>
<td>Box 2, Folder 32</td>
<td>Correspondence - Bullock, Theodore H. (chairman) 1970-1976</td>
</tr>
<tr>
<td>Box 2, Folder 33</td>
<td>Meetings 1970-1972</td>
</tr>
<tr>
<td></td>
<td>General note</td>
</tr>
<tr>
<td></td>
<td>Includes agendas, minutes, and recommendations.</td>
</tr>
<tr>
<td>Box 2, Folder 34</td>
<td>Questionnaire concerning assessment and recommendations for the R/V Alpha Helix 1971</td>
</tr>
<tr>
<td>Box 2, Folder 35</td>
<td>Expedition lists 1972</td>
</tr>
<tr>
<td></td>
<td>General note</td>
</tr>
<tr>
<td></td>
<td>Includes details on past and planned expeditions from 1970-1974, including their chief scientists, locales, durations, and research activities.</td>
</tr>
</tbody>
</table>

**University-National Oceanographic Laboratory System (UNOLS) Alpha Helix Review Committee (AHRC)**

<table>
<thead>
<tr>
<th>Box 2, Folder 36</th>
<th>R/V Alpha Helix informational brochure undated</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>General note</td>
</tr>
<tr>
<td></td>
<td>Includes instructions for requesting use of the ship, descriptions of the facilities and equipment aboard the ship, the responsibilities of scientific party members and the Program Office, and requirements for foreign clearance, customs, and shipping.</td>
</tr>
<tr>
<td>Box 2, Folder 37</td>
<td>Cruise Summaries 1972 January-1973 June</td>
</tr>
</tbody>
</table>

**Correspondence**

<table>
<thead>
<tr>
<th>Box 2, Folder 38-44</th>
<th>Correspondence 1972-1979</th>
</tr>
</thead>
<tbody>
<tr>
<td>Box 2, Folder 45</td>
<td>Fisher, Robert L. 1976-1979</td>
</tr>
<tr>
<td></td>
<td>General note</td>
</tr>
<tr>
<td></td>
<td>SIO Associate Director, Ship Operations/Marine Technical Support (SOMTS).</td>
</tr>
<tr>
<td>Box 2, Folder 46</td>
<td>Holm-Hansen, Osmund 1977-1978</td>
</tr>
<tr>
<td>Box 2, Folder 47</td>
<td>Morrison, Peter 1974-1976</td>
</tr>
<tr>
<td></td>
<td>General note</td>
</tr>
<tr>
<td></td>
<td>Regarding research participation in the Amazon Expedition Phase 4.</td>
</tr>
<tr>
<td>Box 2, Folder 48</td>
<td>National Science Foundation 1976-1977</td>
</tr>
<tr>
<td>Box 2, Folder 49</td>
<td>University-National Oceanographic Laboratory System 1977-1979</td>
</tr>
<tr>
<td>Box 2, Folder 50</td>
<td>Meetings 1972-1979</td>
</tr>
<tr>
<td></td>
<td>General note</td>
</tr>
<tr>
<td></td>
<td>Includes correspondence, agendas, and minutes.</td>
</tr>
<tr>
<td>Box 2, Folder 51</td>
<td>Guidelines for UNOLS Alpha Helix Review Committee (AHRC) 1975-1978</td>
</tr>
<tr>
<td></td>
<td>General note</td>
</tr>
<tr>
<td></td>
<td>Includes correspondence regarding the development of the guidelines.</td>
</tr>
<tr>
<td>Box 2, Folder 52</td>
<td>Guidelines for Management Oversight of R/V Alpha Helix Program 1976</td>
</tr>
<tr>
<td>Box 2, Folder 53-55</td>
<td>Ship time requests 1976-1978</td>
</tr>
<tr>
<td></td>
<td>General note</td>
</tr>
<tr>
<td></td>
<td>Includes proposals and correspondence.</td>
</tr>
</tbody>
</table>
Oversight Committees
University-National Oceanographic Laboratory System (UNOLS) Alpha Helix Review Committee (AHRC)

Scope and Contents
Series 3) EXPEDITIONS: Documents the expeditions and research conducted aboard the R/V Alpha Helix while the Alpha Helix Program Management Office was located at SIO, from February 1966 to January 9, 1980. Materials include proposals, correspondence, scientific and cruise reports, and films. The films were made out of expedition budgets, were usually recorded by the captain and crew of the R/V Alpha Helix, and were intended to be shown at future scientific meetings. A brief description of each of the following expeditions is available here.

- Australian Expedition: Billabong (March-November 1966)
- Amazon Expedition (February 15-December 4, 1967)
- Bering Sea Expedition (March 1, 1968-April 4, 1969)
- New Guinea Expedition (May 1-December 1, 1969)
- Guadalupe Island Cruise (February 25-May 3, 1970)
- Eastern Pacific Programs and Antarctic Expedition (July 1, 1970-July 26, 1971)
- Hukilau/New Guinea Expedition (July 21-23, 1971)
- Eastern Pacific Expedition (October 1971-January 1972)
- Aztec I Expedition (January 26-February 11, 1972)
- Bering Sea Expedition (March 16-June 12, 1972)
- South Seas Expeditions (July 24, 1972-November 29, 1972)
- Australian Cruise (December 9, 1972-May 13, 1973)
- Bering Sea Expedition (July 11-September 7, 1973)
- Kona Coast Expedition and Climax 8 Cruise (October 4-December 18, 1973)
- Baja California Expedition (February 11-April 8, 1974)
- North Pacific Gyre Expedition: Dramamine II (April 22-May 20, 1974)
- Aleutian Trench Cruise and Bering Sea Expedition (June 2-July 10, 1974)
- British Columbia Expedition: Nimpkish Program (August 12-September 19, 1974)
- Seattle-San Diego Cruise (September 22-29, 1974)
- Gulf of California Expedition (October 28-November 26, 1974)
- Clarion Expedition (November 28-December 18, 1974)
- East Asian Expedition (January 27-December 24, 1975)
- Joint II Expedition (March 5-May 5, 1976)
- Amazon Expedition (June 1976-August 1977)
- Caribbean-Pacific Expedition (October 14, 1977-October 10, 1978)
- Moro Expedition (April-November 1979)

Australian Expedition: Billabong (March-November, 1966)
Billabong Expedition (16mm film) 1966
Film narrative 1966

Amazon Expedition (February 15-December 4, 1967)

Logistics and planning 1965-1968
General note
Includes reports of preliminary visits to Brazil made by Per F. Scholander, Howard K. Davis, and Captain James Faughn.

Correspondence 1966-1967
Proposal for Programs I, II, and III 1966 June 27

Office records

Alpha Helix Program Management
SAC 0007 8
Box 7, Folder 1
Amazon Expedition (16mm film) 1967
General note
Annotated “mostly Galapagos.”

Box 3, Folder 8
Arrival and departure reports 1967
Box 3, Folder 9
Program A (February 15-May 15, 1967) - Progress reports
General note

Box 3, Folder 10
Program B (May 16-June 30, 1967) - Progress reports
General note
Evolutionary transitions experienced by fish moving through various environments such as salt and water. Chief scientist: Knut Schmidt-Nielsen (Duke University).

Box 3, Folder 11
Expedition Anaconda - Bob Livingston’s logs 1967
Box 3, Folder 12
Galapagos Expedition (November 12-December 4, 1967) - Field report
General note
Pressure studies in protected water areas off Albemarle Island. Chief scientist: Malcom S. Gordon (UCLA).

Box 3, Folder 13
News release 1967 December 16
Box 3, Folder 14
List of publications resulting from the Amazon Expedition 1975

Box 3, Folder 15
Bering Sea Expedition (March 1, 1968-April 4, 1969)
Box 3, Folder 16
Logistics and planning 1966-1968
Box 3, Folder 17
Correspondence 1967-1972
Box 3, Folder 18
News release 1968 February 2
Box 3, Folder 19
Arrival and departure reports 1968
Box 3, Folder 20-21
Program A (March 1-April 30, 1968) - Correspondence and progress reports
General note

Box 3, Folder 22
Program A Continuation (March 27-April 4, 1969) - Program report
Box 3, Folder 23-24
Program B (May 1-June 30, 1968) - Correspondence and progress reports
General note
Circulation and respiratory studies in fish, seals, walrus, and reindeer. Diving physiology and metabolic studies of seals and sea otters. Chief scientist: Kjell Johansen (University of Washington).

Box 3, Folder 25-26
Program C (July 1-August 15, 1968) - Correspondence and progress reports
General note
Enzyme, muscle, and reflex studies of cold water fish. Seaweed studies including gas transfer, photosynthesis, and respiration. Chief scientist: C. Ladd Prosser (University of Illinois).

Box 3, Folder 27
Program D (August 16-September 30, 1968) - Correspondence
General note
Respiratory, metabolic, and circulatory studies of salmon. Chief scientist: Andrew A. Benson (SIO).

Films (16mm films)
Bering Sea Expedition 1968
Box 8, Folder 1-12  
**Bering Sea Expedition outtakes 1968-1969**  
General note  
1) Cannula, 2) Blood, 3) Scholander apparatus, 4) Skinning, 5) Otter hunt, 6) Otter in a cage, 7) Zoo, 8) Gases, 9) Kjell Johansen's laboratory, 10) Respiration, 11) Rick, and 12) NG footage LML.

Box 7, Folder 2-12  
**Program A 1968**  
General note  
Includes footage of Scholander, Maggert, and Hammel projects, as well as other work done at Kodiak Island and Nunivak.

Box 7, Folder 13-15  
**Program B - Johansen program 1968**

Box 7, Folder 16  
**Programs C and D 1968**

Box 7, Folder 17  
**Program C - Somero program 1968**

Box 7, Folder 18  
**Program D - Benson and Patton projects 1968**

Box 3, Folder 28  
**History of Papua and New Guinea undated**

Box 3, Folder 29  
**Correspondence 1968-1969**

Box 3, Folder 30  
**Phase C photographs 1968**

Box 3, Folder 31  
**Guadalupe Island Cruise (February 25-May 3, 1970)**  
Correspondence and proposal 1970  
Field report 1970  
Report to Mexican officials 1970  
Overview 1971

Box 3, Folder 32  
**Eastern Pacific Programs and Antarctic Expedition (July 1, 1970-July 26, 1971)**  
Correspondence 1970-1971  
Arrival and departure reports 1970-1971  
Photographs 1971

Box 3, Folder 33  
**Southern California cruise 1 (July 1-15, 1970) - Correspondence and cruise report**  
General note  

Box 3, Folder 34  
**Southern California cruise 2 (July 16-21, 1970) - Correspondence and cruise report**  
General note  

Box 3, Folder 35  
**Washington and Oregon cruise (July 28-August 13, 1970) - Correspondence 1970-1971**  
General note  
Oxygen consumption by the coastal seabed. Subsurface plankton maximum studies. Includes proposal. Chief scientist: Mario M. Pamatmat (University of Washington).

Box 3, Folder 36  
**Leg 1: Sea Snake Program (August 27-September 11, 1970)**  
Correspondence 1970-1971  
General note  
Physiological ecology and population dynamics of sea snakes in the waters between San Diego and Panama. Chief scientist: William A. Dunson (Pennsylvania State University).

Box 3, Folder 37  
**Reports 1970**

Box 3, Folder 38-39  
**Research abstracts 1971**
Box 3, Folder 46
Commentary for Dunson film 1970
General note
Film located in Box 8, Folder 18.

Box 3, Folder 47
Leg 2: Coral Reefs Program (September 14-October 9, 1970) - Correspondence and proposal 1970-1972
General note

Box 3, Folder 48
Leg 3: Galapagos Phase (October 16-November 27, 1970) - Correspondence and proposal 1970-1975
General note
Effects of hydrostatic pressure and low temperatures on bottom fishes. Chief scientist: Peter Hochachka (University of British Columbia).

Oversize FB-035, Folder 05
Leg 3: Galapagos Phase (October 16-November 27, 1970) - Chart of the Archipelago de Colon (Galapagos Islands), Cabo Corrientes to Punta Angamos, Brazilian Coast undated

Box 3, Folder 49
Leg 5: Antarctic Program (December 24, 1970-March 5, 1971) - Correspondence
General note
Physiological studies on Antarctic fishes, birds, and mammals. Cardiovascular and respiratory studies. Chief scientist: E. A. Hemmingsen (SIO).

Box 3, Folder 50
Leg 5: Antarctic Program (December 24, 1970-March 5, 1971) - Hemmingsen, Edvard A. The R/V Alpha Helix Antarctic Expedition

Leg 8: Eniwetok Expedition. Project Symbios (April 29-June 26, 1971)

Box 3, Folder 51
SAMTEC Program Management Plan, R/V Alpha Helix Operation Symbios (draft) undated
General note
Coral reef metabolism. Chief scientists: R. E. Johannes and L. R. Pomeroy (University of Georgia).

Box 3,Folder 52-53
Correspondence 1969-1972

Box 3, Folder 54
Photographs 1971

Box 3, Folder 55
Proposal circa 1971

Box 3, Folder 56
Research abstracts circa 1971

Box 3, Folder 57
Reports circa 1971

Audiovisual Materials

Oversize FS-151
Eastern Pacific Programs and Antarctic Expedition (16mm film) 1970
General note
Documents the three research efforts that took place off the coast of North and South America, and the subsequent Antarctic Expedition. Beginning with William Dunson's research, the programs were referred to as Antarctic Expedition Legs.

Box 8, Folder 13
Eastern Pacific Programs and Antarctic Expedition - Various projects (16mm film) 1970

Box 8, Folder 14-16
Eastern Pacific Programs - Eppley, Childress, and Pamatmat projects (16mm films) 1970

Box 8, Folder 17
Antarctic Expedition - General scenes (16mm films) 1970
General note
1) General scenes, 2) General activity, | 3) Argentine Station.
Box 8, Folder 18
**Antarctic Expedition, Leg 1 - Dunson sea snakes program (16mm film) 1970**

General note
For commentary, see Box 3, Folder 46.

Box 8, Folder 19
**Antarctic Expedition, Leg 2 - Newman program 1970**

Box 8, Folder 20-22
**Antarctic Expedition, Leg 3 - Hochachka Galapagos Islands program (16mm films) 1970**

Box 8, Folder 23
**Antarctic Expedition, Leg 4 - Description of Murrish and White projects (audiocassette) 1970**

Box 8, Folder 24
**Antarctic Expedition, Leg 4 - White catheterization sequence (16mm film) 1971**

Box 8, Folder 25
**Antarctic Expedition, Leg 5: Antarctic Program - Description of Hammel and Johansen projects (audiocassette) 1971**

Box 8, Folder 26
**Antarctic Expedition, Leg 5: Antarctic Program (16mm films) 1971**

General note
1) Palmer Station, Anvers Island, 2) L Crawshaw project, 3) Gerald Kooyman project, 4) H. T. Hammel project - Penguin treadmill, 5) D. G. Greene project, 6) D. E. Murrish project, 7) A. R. Hargens project, 8) Fred N. White project.

Box 8, Folder 27
**Antarctic Expedition, Leg 6 - Robison program (16mm film) 1971**

Box 8, Folder 28-32
**Antarctic Expedition, Leg 8: Eniwetok Expedition. Project Symbios (16mm films and digital video tapes) 1971**

Box 9, Folder 1
**Antarctic Expedition, Leg 8: Eniwetok Expedition. Project Symbios - Johannes project (16mm film) 1971**

Box 9, Folder 2
**Antarctic Expedition, Leg 8: Eniwetok Expedition. Project Symbios - Description of expedition work (audiocassette) 1971**

**Hukilau/New Guinea Expedition (July 21-23, 1971)**

Box 3, Folder 58
**Correspondence and proposal 1970-1971**

Box 3, Folder 59
**Reports 1971**

Box 9, Folder 3
**Robison project (16mm film) 1971 July**

**Eastern Pacific Expedition (October 1971-January 1972)**

**Oversize FS-152**
**Eastern Pacific Expedition (16mm film) 1971**

**Lasker Cruise (October 4-8, 1971)**

Box 3, Folder 60
**Proposal 1970-1971**

General note
Marine zooplankton predation on fish larvae. Chief scientist: Reuben Lasker (SIO).

Box 3, Folder 61
**Correspondence 1971-1972**

Box 3, Folder 62
**Cruise report 1971**

Box 3, Folder 63
**After action report 1971**

Box 9, Folder 4-5
**Lasker Cruise (16mm films) 1971**

**Kooyman Cruise (October 13-22, 1971; December 1-10, 1971)**

Box 3, Folder 64
**Proposal 1971**

General note
Whale study including behavior, acoustics, and deep diving. The cruise was divided into two parts, with Michael Mullin's cruise in between. Chief scientist: Gerald L. Kooyman (SIO).

Box 3, Folder 65
**Correspondence 1971**

Box 3, Folder 66
**Cruise report 1971**

Box 3, Folder 67
**After action report 1971**

**Mullin Cruise. North Pacific Gyre Expedition (October 27-November 24, 1971)**

Box 3, Folder 68
**Correspondence 1971**

General note

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**Proposal 1971**
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<td>Neurophysiological investigations of the squid Loligo opalescens. Chief scientist: David Lange (UCSD).</td>
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<td>Overview and abstracted scientific field reports 1972</td>
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<td>Includes footage of Elsner project and other work done at Dutch Harbor and Cold Bay.</td>
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<td>Seal studies including the physiology of diving, temperature regulation, and survival priorities. Chief scientist: Robert W. Elsner (SIO).</td>
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<td>Physiological studies on beluga whales, similar to those studies conducted on seals in Phase A. Chief scientist: L. Keith Miller (University of Alaska).</td>
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  General note  
  Includes footage of the expedition’s three separate human medical studies. |
| 4, 10      | Solomon A Expedition: Uluwa and Ontong Java Islands (July 24-September 4, 1972)  
  Proposal circa 1971  
  General note  
  Anthropological and genetic relationships between two isolated human populations in the Solomon Islands. Chief scientist: Albert Damon (Harvard University). |
| 4, 11-14   | Solomon B Expedition: Solomon and New Hebrides Islands (September 17-November 18, 1972)  
  Correspondence 1966-1973  
  Arrangement and departure reports 1972  
  Overview and abstracted scientific field reports 1972  
  After action report 1972  
  Correspondence 1971-1973  
  Disease patterns, congenital defects, and epidemic diseases among the inhabitants of twelve islands. Chief scientist: D. Carleton Gajdusek (National Institutes of Health). |
| 4, 15-18   | Pingelap, Caroline Islands stopover (November 22-29, 1972) - Correspondence and cruise report 1971-1972  
  General note  
| 4, 19-20   | Australian Cruise (December 9, 1972-May 13, 1973)  
  Cruise prospectus 1972  
  Program A: Ashmore Reef Expedition (December 9, 1972 -January 21, 1973)  
  Proposal 1972  
  General note  
| 4, 21-25   | Program B: Lizard Island Expedition (January 29-March 18, 1973) - Proposal and correspondence 1972-1973  
  General note  
  Neurobiological studies of fish. Chief scientist: Susumu Hagiwara (UCLA). |
| 4, 26-27   | Program C: Great Barrier Reef Expedition (March 26-May 13, 1973)  
  Proposal 1972  
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Box 4, Folder 29  Correspondence 1971-1975
Box 4, Folder 30  Arrival and departure reports 1973
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Bering Sea Expedition (July 11-September 7, 1973)
Box 4, Folder 33  Correspondence 1972-1974
Oversize FB-035, Folder 06  Logistics schedule 1973 February 9
Box 4, Folder 34  News releases 1973
Box 4, Folder 35  Overview and abstracted scientific field reports 1973
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Kona Coast Expedition and Climax 8 Cruise (October 4-December 18, 1973)
Box 4, Folder 37  Proposal 1972
Box 4, Folder 38  Correspondence 1972-1975
Box 4, Folder 39  Overview and abstracted scientific field reports 1973
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Climax 8 Cruise (December 4-18, 1973)
Box 4, Folder 41  Proposal 1972-1973
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Baja California Expedition (February 11-April 8, 1974)
Box 4, Folder 44  Proposal 1972
Box 4, Folder 45  Correspondence 1972-1975

North Pacific Gyre Expedition: Dramamine II (April 22-May 20, 1974)
Box 4, Folder 46  Proposal 1973-1974
Box 4, Folder 47  Correspondence 1973-1975
Box 4, Folder 48  Cruise report 1974
Box 9, Folder 14  North Pacific Gyre Expedition: Dramamine II (16mm film) 1974

Aleutian Trench Cruise and Bering Sea Expedition (June 2-July 10, 1974)
Box 4, Folder 49-50  Aleutian Trench Cruise (June 2-3, 1974) - Correspondence and cruise report

Bering Sea Expedition (June 10-July 10, 1974)
Box 4, Folder 51  Proposal 1974 April
Box 4, Folder 52  Correspondence 1974
Box 4, Folder 53  Cruise reports 1974
Box 4, Folder 54  Abstracted scientific field reports 1974

British Columbia Expedition: Nimpkish Program (August 12-September 19, 1974)
Box 4, Folder 55  Proposal 1973-1974
Box 4, Folder 56  Correspondence 1974-1975
Box 4, Folder 57  Arrival and departure reports 1974
Box 4, Folder 58  Cruise reports 1974
Box 4, Folder 59  Overview and abstracted scientific field reports 1974
Box 4, Folder 60  Photographs 1974

Seattle-San Diego Cruise (September 22-29, 1974)
Oversize FB-035, Folder 06  Correspondence 1974
Box 4, Folder 62  Cruise report 1974
Box 4, Folder 63  Overview and abstracted scientific field reports 1974

Gulf of California Expedition (October 28-November 26, 1974)
Box 4, Folder 64  Proposal 1974
Box 4, Folder 65  Correspondence 1974
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Box 9, Folder 15  Gulf of California Expedition film (16mm film) 1974

Clarion Expedition (November 28-December 18, 1974)
Box 4, Folder 68  Proposal 1972-1974
East Asian Expedition (January 27-December 24, 1975)

Oversize FB-035, Folder 06

- Correspondence 1974-1975
- News release 1975 January 27
- Cruise report 1975

Crosspac (January 27-March 1975)

Box 4, Folder 75
Scott Daubin, Jr. cruise - Correspondence

General note
Retrieval of two arrays of current meters. Chief scientist: Scott Daubin, Jr.
(Columbia University).

Oahu Cruise (February 12-14, 1975) - Correspondence and cruise report 1974-1975

General note
Specimen collection for two studies: genetic variability in midwater fishes, and bioluminescence in midwater cephalopods. Chief scientist: Richard Young (University of Hawaii at Manoa).

Ju-shey Ho cruise - Correspondence 1974-1975

General note
Analysis of parasites that live on mid-water and bottom fishes. Chief scientist: Ju-shey Ho (California State University, Long Beach).

Projected ship locations and expenditures 1974 September 21

Phase 1: Bioluminescence Expedition (March 22-June 10, 1975)

Proposal 1973

General note
Bioluminescence and vision studies on a wide variety of crab and insects. Chief scientists: James F. Case (UCSB) and G. Adrian Horridge (Australian National University).

G. Adrian Horridge report from Ambon 1974 November

News release 1975

Cruise report 1975

Overview and abstracted scientific field reports 1975

Phase 2: Borneo Expedition (June 18-August 14, 1975)

Proposal 1973

General note

Correspondence 1974-1976

Field report - Marcia Rottman 1975

General note
Marcia Rottman (University of Colorado) obtained plankton and sediment samples in the Palawan Passage in the South China Sea from June 18-21 while the R/V Alpha Helix was in transit from Subic Bay, Philippines to Cowie Harbor, Sabah.
Overview and abstracted scientific field reports 1976

Specimen collection aboard the R/V Alpha Helix (16mm film) 1975

General note
Possibly from the East Asian Expedition, Phase 2 which included comparative physiology studies off Brunei.

Phase 3: Visayan Sea Expedition (August 21-October 2, 1975)

Proposals 1974-1975

General note

Overview and abstracted scientific field reports 1976

Visayan Sea Expedition (16mm film) 1975

Phase 4: Nautilus Expedition (October 9-November 13, 1975)

Proposal 1974

General note
Functional and physiological investigations of marine snakes and the chambered nautilus. Chief scientist: James R. Redmond (Iowa State University).

Phase 5 (November 14-December 22, 1975) - Correspondence

General note
Transit only; issues with scheduling and shipboard equipment prevented scientific work.

Crosspac East (December 1-24, 1975)

Correspondence 1974-1975

General note
Chief scientist: Dennis Powers (Johns Hopkins University).

Field report - Gary Lopez 1975

General note
Gary Lopez (SIO) collected water striders for heavy metal analysis and barnacles for distributional analysis.

Projected ship locations and expenditures 1975 March 11

Joint II Expedition (March 5-May 5, 1976)

International collaboration 1972-1975

Correspondence 1973-1976

Proposal 1974
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<td>Also includes a brief of research for Amazon Expedition Phases 1 through 5.</td>
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**Amazon Expedition (June 1976-August 1977)**

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<td>Geochemical sampling. Sediment load study program. Chief scientist: John M. Edmond (MIT).</td>
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Phase 2 (July 14-August 21, 1976)

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| Box 5, Folder 41                  | Prospectus circa 1976    |
| Box 5, Folder 42                  | Cruise report 1976       |
| Box 5, Folder 43                  | INPA Cruise (August-September 1976) - Correspondence |
|                                  | General note             |
|                                  | Conducted in collaboration with Brazilian researchers of the Instituto Nacional de Pesquisas da Amazonia (INPA). Chief scientist: Aurelina Lopez Castrillon. |

Box 5, Folder 44

INPA Cruise (August-September 1976) - Proposal to the Conselho Nacional de Pesquisas do Brasil 1976 April
Phase 3 (September 5-October 26, 1976)
Pulmonary, kidney, and other physiological characteristics of aquatic vertebrates. Chief scientists: Peter W. Hochachka and David Randall (University of British Columbia).

Hemoglobin and molecular adaptations of fishes living in natural waters with varying amounts of oxygen and acidity. Chief scientist: Austen F. Riggs (University of Texas).

Structure, function, and retinal pigments of the eyes of fish and freshwater dolphin. Behavior of piranhas. Chief scientist: J. A. C. Nicol (University of Texas).


Botanical and pharmacological study of hallucinogenic plants. Chief scientists: Richard S. Schultes (Harvard) and Bo Holmstedt (Swedish Medical Research Council).
Box 6, Folder 11  Correspondence 1976-1977
   General note
   River ecology research, sediment studies, and nutrient analysis. Chief scientist: John M. Edmond (MIT).

Box 6, Folder 12  Proposal for Jeffrey E. Richey's project 1976 August 25
Box 6, Folder 13  Cruise report 1977
Box 6, Folder 14  Scientific abstracts 1977
Phase 9: Amazon-Caribbean Cruise (June 12-July 20, 1977)
Box 6, Folder 15  Proposals 1976
   General note
   Zooplankton sampling and hydrographic bacterial observations. Chief Scientist: Abraham Fleminger.

Box 6, Folder 16  Correspondence 1976-1977
Box 6, Folder 17  Cruise reports and abstracted scientific field reports 1978
Phase 10: Amazon-Caribbean Cruise (July 21-August 10, 1977)
Box 6, Folder 18  Correspondence 1976-1978
   General note

Box 6, Folder 19  Report of Captain Haines' site visit to Belize 1977
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   Caribbean-Pacific Expedition (October 14, 1977-October 10, 1978)
Box 6, Folder 22  Correspondence 1973-1979
   Phase 1: Miskito Bank Cruise (October 14-November 23, 1977)
Box 6, Folder 23  Proposal 1976
   General note
   Part of the Seagrass Ecosystem Study, a long-term multi-site study of seagrass ecosystems. Physiological experiments on the green turtle. Sediment collections, biomass analyses. Chief scientist: John C. Ogden (Fairleigh Dickinson University).

Box 6, Folder 24  Correspondence 1976-1978
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Phase 2 (November 24-December 27, 1977) - Correspondence and abstracted scientific field reports 1976-1979
   General note
   Biochemical investigations of the evolution of fish genes and enzymes. Chief scientist: Clement L. Markert (Yale University).

Box 6, Folder 28  Proposal 1976
   General note
   Protein metabolism in tropical fish. Chief scientist: Audrey Haschemeyer (City University of New York).

Box 6, Folder 29  Correspondence 1976-1978
Box 6, Folder 30  Cruise report 1978
Box 6, Folder 31  Overview and abstracted scientific field reports 1978
Phase 4 (January 29-February 19, 1978)

Proposals 1977

General note
Physiology and behavior of the water striders and algae. Chief scientists: Lanna Cheng and Ralph Lewin (SIO).

Correspondence 1977-1978

Preliminary reports 1978

Overview and abstracted scientific field reports 1978

Phase 5 (February 20-March 30, 1978)

Correspondence 1975-1978

General note
Antibacterial, antifungal, and antiviral substances. Chief scientist: Kenneth L. Rhinehart (University of Illinois at Urbana-Champaign).

Proposals 1976-1978

Research plan circa 1978

Final report 1978

Phase 6 (March 31-April 19, 1978)

Proposal 1976

General note

Correspondence 1976-1978

Cruise report 1978

General note
Contains abstracted scientific field reports.

Phase 7 (May 22-June 11, 1978)

Pre-proposal 1977

General note

Correspondence 1978

Prospectus and cruise plan 1978

Final cruise report 1978

Phase 8 (June 12-August 6, 1978)

Proposals 1973-1976

General note
Respiratory and reproductive physiology of marine and land iguanas. Chief scientist: George A. Bartholomew (UCLA).

Research program description circa 1976

Correspondence 1976-1978

Prospectus 1978

Cruise report 1978

Overview and abstracted scientific field reports 1978

Phase 9: Green Turtle Expedition (August 7-September 23, 1978)

Proposal 1977

General note
Respiratory/circulatory physiology and behavior of the green turtle Chelonia mydas. Chief scientist: Henry D. Prange (Indiana University).
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<td>60-61</td>
<td>Phase 1 (March 2-April 8, 1979) - Transpac proposal and correspondence</td>
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<td>1978-1979</td>
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<td>62</td>
<td>Phases 2 and 2A (April 9-May 30, 1979)</td>
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<td>Correspondence 1977-1979</td>
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<td></td>
<td>Eel grass ecosystems in the Torres Strait. Chief scientists: Patrick Parker</td>
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<td></td>
<td>(University of Texas) and Peter McRoy (University of Alaska). Includes program</td>
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<td></td>
<td>descriptions and summary reports of cruise activities.</td>
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<tr>
<td>63</td>
<td>Cruise reports 1979</td>
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<td>64</td>
<td>Overview and scientific field reports 1979</td>
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<tr>
<td>65</td>
<td>Phase 3 (May 31-July 27, 1979)</td>
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<td>Proposals 1976-1978</td>
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<td></td>
<td>General note</td>
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<td></td>
<td>Zoological sampling programs in Indo-Malaysia. Animals studied included</td>
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<td></td>
<td>microplankton, mollusks, copepods, fish, and hermit crabs. Chief scientist:</td>
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<td></td>
<td>Abraham Fleminger (SIO).</td>
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<td>Correspondence 1976-1979</td>
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<td>67</td>
<td>Cruise report 1979</td>
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<td>General note</td>
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<td>Contains abstracted scientific field reports.</td>
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<td>Phase 4 (July 28-September 10, 1979)</td>
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<td>Coconut crab program in the Palau Islands. Chief scientist: James Cameron</td>
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<td>(University of Texas).</td>
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<td>69</td>
<td>Correspondence 1977-1980</td>
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<td>70</td>
<td>Overview and scientific field reports 1979</td>
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<td>71</td>
<td>Phase 5 (September 11-October 8, 1979)</td>
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<td>Proposal circa 1978</td>
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<td>Overview and abstracted scientific field reports 1979</td>
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<td>Phase 6 (October 9-November 30, 1979)</td>
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<td>Description</td>
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</table>
| Box 6, Folder 74 | **Proposal 1976**                                | General note  
Comparative cephalopod physiology studies in the Tanon Strait. Chief scientist: John Arnold (University of Hawaii). |
| Box 6, Folder 75 | **Correspondence 1976-1979**                      |                                                                                                                                         |
| Box 6, Folder 76 | **Abstracted scientific field reports 1979**      |                                                                                                                                         |
| Box 6, Folder 77 | **Track map undated**                            |                                                                                                                                         |
| Box 6, Folder 78 | **Phase 7 (December 1, 1979-January 7, 1980) - Correspondence** | General note  
Transit from Subic Bay to Honolulu, and on to Seattle. No science was conducted during this phase. Ownership of the R/V Alpha Helix was turned over to the University of Alaska on January 9, 1980. |