

N22 (CHIS))

November 20, 1992

MEMORANDUM

To: Associate Director, Natural Resources
Through: Gary Williams, Inventory & Monitoring Coordinator
From: Superintendent, Channel Islands National Park
Subject: Annual Administrative Reports for Prototype Parks

Attached are the Annual Administrative Reports for inventory and monitoring projects at the Channel Islands.

Please contact Dan Richards, Marine Biologist, at 805/658-5760 if you have any questions.

C. Mack Shaver
Superintendent

UNITED STATES DEPARTMENT OF THE INTERIOR

NATIONAL PARK SERVICE

ANNUAL ADMINISTRATIVE REPORT
(Long-term Monitoring)

To be completed by individual Project Leaders and returned to the park I&M Program Coordinator.

Park: CHIS

Region: Western

RMP Proj. Number(s): N-1.101

1. Project Title: Administration of the Inventory and Monitoring Program

2. Project Objectives:

The Inventory and Monitoring program at Channel Islands experienced considerable growth during FY 92 due to the addition of \$320 K. The administration of the program centered around acquisition of office space, preparation and classification of position descriptions and announcements, and transportation of personnel into the field.

3. Name(s), Institution, mailing address, and telephone number of principle investigator.

Kathryn Roney Faulkner
Channel Islands National Park
1901 Spinnaker Drive
Ventura, California 93001
(805) 658-5709

4. Estimated funding amount(s) expended (including personnel time) during current FY. Enter funds (in dollars), FTE's supported, and agency/organization name for each funding source.

	\$	FTE	Name
NPS (WASO I&M)	\$ 55 K	0.8	
NPS (Region)			
NPS (Parkbase)	\$ 50 K	0.3	
Other Fed. Agency			
State/Local			
Non-profit Inst.			
Personal/VIP			
TOTAL	\$ 105 K	1.1	

5. Name of ecosystem or habitat studied:

N/A

Name of Families or Orders studied:

N/A

Name of species (or Genera) studied:

N/A

6. Please briefly address each of the following. Use additional sheets if necessary.

(a) Progress (Focus on relationship to 5-year strategic plan)

All of the seven new positions identified for the expanded I&M program for CHIS were described and filled during 1992. The park rented 4,500 square feet of additional office space within 0.6 miles of the park headquarters.

(b) Significant findings

It takes alot of time to rent space through GSA. It also takes alot of time to classify Position Descriptions and hire personnel.

(c) Reports and publications during fiscal year

N/A

(d) Status of any specimens collected

N/A

7. Appendices

a. Project staffing

Chief, Resources Management	GS-12	0.3 FTE
Clerical Assistant	GS-02	0.4 FTE
Procurement Assistant	GS-07	0.1 FTE
Librarian	GS-05	0.3 FTE

b. Plans for next fiscal year (Replaces Strategic Plan update this FY only)

The park will continue to rent the GSA office space. The I&M budget will contribute \$8 K to administration functions (personnel, finance, etc) and \$4.5 K to the transportation budgets of the park to support the operations of the expanded inventory & monitoring staff.

UNITED STATES DEPARTMENT OF THE INTERIOR

NATIONAL PARK SERVICE

ANNUAL ADMINISTRATIVE REPORT
(Long-term Monitoring)

Park: Channel Islands National Park Region: WRO

RMP Proj. Number(s): CHIS N-1.101

1. Project Title: Partial Inventory of Bats on Santa Rosa and
East Santa Cruz Islands

2. Project Objectives:

Santa Rosa Island was acquired by the NPS in 1986, and is the only island that has not been surveyed for bats. The purpose of this project is to generate a bat species list for Santa Rosa Island, along with general information regarding distribution. Of particular note would be any recorded occurrence of Townsend's big-eared bat, a candidate for the federal list of threatened and endangered species.

The Townsend's Long-eared bat, a Federal Candidate 2 species, was known to occur on East Santa Cruz Island. Nothing was known of its population size or distribution. The park needed additional information on the population and its foraging areas.

3. Name(s), Institution, mailing address, and telephone number of principle investigator.

Dr. Patricia Brown-Berry
Brown-Berry Biological Consulting
658 Sonja Court
Ridgecrest, CA 93555
(619) 375-5518

4. Estimated funding amount(s) expended (including personnel time) during current FY. Enter funds (in dollars), FTE's supported, and agency/organization name for each funding source.

	\$	FTE	Name
NPS (WASO I&M)	10,000	0.1	
NPS (Region)			
NPS (Parkbase)			
Other Fed. Agency			
State/Local			
Non-profit Inst.			
Personal/VIP			
TOTAL	10,000	0.1	

5. Name of ecosystem or habitat studied:

Coastal Island

Name of Families or Orders studied:

Vespertilionidae

Name of species (or Genera) studied:

Antrozous pallidus	Pallid bat
Myotis californicus	California myotis
Plecotus townsendii	Townsend's Long-eared bat

6. Please briefly address each of the following. Use additional sheets if necessary.

(a) Progress (Focus on relationship to 5-year strategic plan)

In June 1992, a purchase order was let to Dr. Patricia Brown-Berry to conduct a count of the Townsend's Long-eared bat population on East Santa Cruz Island and to investigate their foraging habits.

In September, 1992, an additional purchase order was let to Dr. Patricia Brown-Berry for this project. The species list will be generated based on fieldwork conducted during both the fall and spring. The fall survey was completed in October 1992. Eventually a monitoring program for bats will be designed and implemented on park islands.

(b) Significant findings

On East Santa Cruz Island, Dr. Brown-Berry found that the only population of Townsend's Long-eared bats roosted in an old adobe ranch building which is used for equipment storage by private owners. The bats are foraging up to several miles from the roost site.

The fall survey on Santa Rosa Island was hampered by high winds, which made mist-netting difficult (one California myotis was caught). Pallid bat guano was found in an abandoned radar station building, indicating a possible roost site for this sensitive species.

(c) Reports and publications during fiscal year

In progress

(d) Status of any specimens collected

N/A

7. Appendices

a. Project staffing

GS-11 Terrestrial Biologist (CHIS) 0.1 FTE

b. Plans for next fiscal year (Replaces Strategic Plan update this FY only)

In FY93, Dr. Brown-Berry will conduct spring surveys to determine occurrence of bat species on Santa Rosa Island. A report will be generated, including recommendations for disposal of abandoned buildings in light of utilization by bats as roosting sites.

UNITED STATES DEPARTMENT OF THE INTERIOR

NATIONAL PARK SERVICE

ANNUAL ADMINISTRATIVE REPORT
(Long-term Monitoring)

Park: Channel Islands Region: Western

RMP Proj. Number(s): N-1.101

1. Project Title: Marine Debris Monitoring

2. Project Objectives: Determine the types, abundance, distribution, and accumulation rates of marine debris on park beaches as part of National Park Service Marine Debris Monitoring Program.

3. Name(s), Institution, mailing address, and telephone number of principle investigator.

Daniel Richards
Channel Islands National Park
1901 Spinnaker Drive
Ventura, CA 93001
(805) 658-5760

4. Estimated funding amount(s) expended (including personnel time) during current FY. Enter funds (in dollars), FTE's supported, and agency/organization name for each funding source.

	\$	FTE	Name
a. NPS (WASO I&M)			
b. NPS (Region)			
c. NPS (Park Base)	5.2K	0.1	CHIS
d. Other Fed. Agency	4.2K		NMFS
e. State/Local Agency			
f. Non-profit Inst.			
g. Personal/Volunteer	1.5K *	0.1	
Total	10.9K	0.2	

* based on 16 days of GS-7 type work.

5. Name of ecosystem or habitat studied:

Sandy beaches

Name of Families or Orders studied:

none (types of plastic debris)

Name of species (or Genera) studied:

none

6. Please briefly address each of the following. Use additional sheets if necessary.

(a) Progress (Focus on relationship to 5-year strategic plan)

This was the fourth year of monitoring in this program. Six beaches were surveyed three times in 1992.

(b) Significant findings

Plastic debris from a variety of sources continues to accumulate on park beaches. After the "March Miracle" rains, it was very apparent that debris from mainland beaches makes its way to the islands and is one of the major sources of debris, something we suspected. Other sources include shipping, commercial fishing, pleasure crafts, and the military.

(c) Reports and publications during fiscal year

Marine Debris Monitoring at Channel Islands National Park, 1990 Annual Report, Daniel Richards

Annual Report of the National Park Marine Debris Monitoring Program: 1991 Marine Debris Surveys. A. Cole, D. Richards, W. Gregg, D. Manski. Technical Report NPS/ in prep.

The US National Park Marine Debris Monitoring Program: assessing long-term changes in marine pollution. D. Manski, D. Richards. IVth World Congress on National Parks and Protected Areas Congress. Caracas, Venezuela. February 1992.

(d) Status of any specimens collected

none collected

7. Appendices

a. Project staffing

(Perm 0.1 FTE) GS-11 Marine Biologist

b. Plans for next fiscal year (Replaces Strategic Plan update this FY only)

Continue monitoring six beaches on a quarterly basis.

UNITED STATES DEPARTMENT OF THE INTERIOR

NATIONAL PARK SERVICE

ANNUAL ADMINISTRATIVE REPORT
(Long-term Monitoring)

Park: Channel Islands Region: Western

RMP Proj. Number(s): N-1.101

1. Project Title: Information Management

2. Project Objectives: Information management is the basis of the CHIS Science program and is the key to timely and appropriate application of inventory, monitoring, and restoration results to management issues. The inherent goal of GIS technologies is the proper access, storage, analysis, and comprehension of data.

3. Name(s), Institution, mailing address, and telephone number of principle investigator.

Linda Dye
Database Administrator
Channel Islands National Park
1901 Spinnaker Dr.
Ventura, CA 93001
805-658-5775

4. Estimated funding amount(s) expended (including personnel time) during current FY. Enter funds (in dollars), FTE's supported, and agency/organization name for each funding source.

	\$	FTE	Name
NPS (WASO I&M)	\$ 200 K	0.5	
NPS (Region)			
NPS (Parkbase)			
Other Fed. Agncy			
State/Local			
Non-profit Inst.			
Personal/VIP			
TOTAL	\$ 200 K	0.5	

5. Name of ecosystem or habitat studied: The Channel Islands and the associated marine environment located within one mile of the Islands within the CHIS boundaries.

Name of Families of Orders studied: all terrestrial, intertidal, and marine flora and fauna within the CHIS boundaries.

Name of species (or Genera) studied: all terrestrial, intertidal, and marine flora and fauna within the CHIS boundaries.

6. Please briefly address each of the following. Use additional sheets if necessary.

(a) Progress (Focus on relationship to 5-year strategic plan)
The Database Administrator and GIS Specialist have been hired. The Database Administrator attended basic GRASS training at the University of Illinois in August. Purchase of two SPARC 10/30 stations with associated hard drives, tape drives, modems, plotters, monitors, terminals, software, and other items needed for the GIS system has been accomplished; installation is planned during December 1992.

Set up of the newly rented Resource Management Annex building is close to completion. The building has been wired for Local Area Network (LAN) technology to facilitate data management. Final connection to the headquarters LAN is planned for December 1992. Computers for all new Inventory & Monitoring staff were purchased and configured for connection to the LAN. Cooperative funding and USGS start up of digitizing eleven quad maps to provide the basic GIS data layer for the entire park has been completed. The digitized quads are expected in March of 1993.

(b) Significant findings

Use of the existing ERDAS - PC based GIS system continues to facilitate ongoing programs such as the feral pig eradication program, and for vegetation mapping. Since this system is inadequate for current needs, ERDAS information will be transferred to the SPARC based GIS system once the new system is operational. The existing LAN continues to function well to facilitate data storage and backup for kelp forest, tidepool, and other monitoring programs.

(c) Reports and publications during fiscal year

N/A

(d) Status of any specimens collected

N/A

7. Appendices

a. Project staffing

GS-11 Ecologist/Database Administrator

0.5 FTE

b. Plans for next fiscal year (Replaces Strategic Plan update this FY only)

A GS-09 GIS Specialist was hired in November 1992.

1. Installation and set up of two SPARC stations
2. SPARC station administration and GRASS GIS training for staff
3. Facilitation of Resource Management LAN, computer equipment; monitor evolution of database management practices
4. CHIS internal and external database inventory update
5. Move existing ERDAS equipment and transfer existing information to new system
6. Priorize CHIS GIS needs
7. Begin to acquire databases/information layers to meet GIS needs
8. After staff is obtains a comfortable level of familiarity with the GRASS system, and if needed, begin to plan for and/or acquire ARCINFO GIS software and training

UNITED STATES DEPARTMENT OF THE INTERIOR

NATIONAL PARK SERVICE

ANNUAL ADMINISTRATIVE REPORT
(Long-term Monitoring)

Park: Channel Islands Region: Western

RMP Proj. Number(s): N-1.101

1. Project Title: Rocky Intertidal Monitoring

2. Project Objectives: Determine the ecosystem health of the rocky intertidal through monitoring population dynamics of selected indicator species at 14 permanent locations on four islands.

3. Name(s), Institution, mailing address, and telephone number of principle investigator.

Daniel Richards
Channel Islands National Park
1901 Spinnaker Drive
Ventura, CA 93001
(805) 658-5760

4. Estimated funding amount(s) expended (including personnel time) during current FY. Enter funds (in dollars), FTE's supported, and agency/organization name for each funding source.

	\$	FTE	Name
a. NPS (WASO I&M)	\$ 5K		
b. NPS (Region)			
c. NPS (Park Base)	\$ 16.8K	0.4	
d. Other Fed. Agency			
e. State/Local Agency			
f. Non-profit Inst.			
g. Personal/Volunteer	\$ 6.6K*	0.2	
Total	\$ 28.4K	0.6	

*70 days of GS-7 type work.

5. Name of ecosystem or habitat studied:

Rocky Intertidal

Name of Families or Orders studied:

Haliotidae
Acmaeidae
Asteriidae
Mytilidae
Chthamalidae
Tetraclitidae
Balanidae
Cryptonemiales
Fucales
Gigartinales

Name of species (or Genera) studied:

Haliotis cracherodii
Lottia gigantea
Pisaster ochraceus
Mytilus californianus
Chthamalus sp.
Tetraclita rubescens
Balanus glandula
Endocladia muricata
Pelvetia fastigiata
Hesperophycus harveyanus
Gigartina canaliculata

6. Please briefly address each of the following. Use additional sheets if necessary.

(a) Progress (Focus on relationship to 5-year strategic plan)
Monitored 14 permanent sites according to the monitoring handbook. Began black abalone transplant experiment (in cooperation with Calif. Dept. of Fish and Game and personnel from UCSC and UCSB) to test the efficacy of transplanting abalone into areas where they have been depleted, and to see if the withering syndrome affects transplanted healthy abalone. Cooperated with staff at Univ. of California Santa Barbara to identify geographic range of black abalone mortalities. Worked with California Department of Fish and Game biologists to identify extent and cause(s) of black abalone mortality.

(b) Significant findings

Declining numbers of black abalone populations in the park, apparently due to a disease previously unknown.

(c) Reports and publications during fiscal year

Trip reports (in-house memoranda) for each monitoring trip

Early warnings of modern population collapse in black abalone, Haliotis cracherodii. G. Davis and D. Richards Western Society of Naturalists, Santa Barbara California, December, 1991.

Applying results of marine resource monitoring: A case study from Channel Islands National Park, California, USA. D. Richards. IVth World Congress on National Parks and Protected Areas. Caracas, Venezuela. February 1992.

Applying Results of Marine Resource Monitoring. D Richards. Seventh Annual Information Transfer Meeting, Minerals Management Service. Ventura, California. May 1992.

(d) Status of any specimens collected

Black abalone collected for histology and physiology experiments were sent to UC Davis and the California Fish and Game Fish Disease Lab in Rancho Cordova, CA.

7. Appendices

a. Project staffing
(Perm 0.4 FTE) Marine Biologist GS-11

b. Plans for next fiscal year (Replaces Strategic Plan update this FY only)

Continue monitoring 14 permanent stations. Continue to provide assistance to Fish and Game Biologists and to student project on abalone disease. Survey potential sites on Santa Cruz Island and prepare for establishing sites there in 1994.

UNITED STATES DEPARTMENT OF THE INTERIOR

NATIONAL PARK SERVICE

ANNUAL ADMINISTRATIVE REPORT
(Long-term Monitoring)

Park: Channel Islands Region: Western

RMP Proj. Number(s): N-1.101

1. Project Title: Kelp Forest Monitoring

2. Project Objectives: Determine health of kelp forest ecosystem through monitoring population dynamics of nearly 70 indicator species at 16 permanent locations around the five park islands.

3. Name(s), Institution, mailing address, and telephone number of principle investigator.

Daniel Richards
Channel Islands National Park
1901 Spinnaker Drive
Ventura, CA 93001
(805) 658-5760

4. Estimated funding amount(s) expended (including personnel time) during current FY. Enter funds (in dollars), FTE's supported, and agency/organization name for each funding source.

	\$	FTE	NAME
a. NPS (WASO I&M)	\$ 10K		
b. NPS (Region)			
c. NPS (Park Base)	\$ 70 K	1.7	Boating Division
	1.5K	0.4	
d. Other Fed. Agency			
e. State/Local Agency			
f. Non-profit Inst.			
g. Personal/Volunteer	13.3K*	0.5	
Total	94.8	2.6	

*Volunteer amounts based on 121 days at GS-7 level work with 14

days at the GS-9 level.

5. Name of ecosystem or habitat studied:

Marine nearshore subtidal/ kelp forests

Name of Families of Orders studied:

see attached list

Name of species (or Genera) studied:

see attached list

6. Please briefly address each of the following. Use additional sheets if necessary.

(a) Progress (Focus on relationship to 5-year strategic plan)

Monitoring was performed at the 16 permanent sites as per the monitoring handbook. In addition we now have eight stations with sets of recruitment modules for monitoring abalone, seastar, and urchin recruitment. Temperature depth recorders were placed at three stations this summer. We are assisting researchers at San Diego State University with a larval recruitment experiment at Anacapa which should provide valuable data for the Kelp Forest Monitoring. We made random surveys for white abalone along Anacapa and Santa Cruz Islands. Significant progress has been made in updating the monitoring handbook to reflect new computer programs and techniques in the monitoring procedures. A two-year term marine biologist (GS 7/9) position was filled in October 1992.

(b) Significant findings

In 1992 we documented the extent of the sea star wasting disease that occurs with prolonged warm temperatures. We recorded for the first time, the affects of what may be the same disease in sea urchins. Large numbers of sea urchins lost their spines and showed deformities or lesions at Santa Barbara, Anacapa, and Santa Cruz Islands. Associated with El Niño, was a range extension of a spotted porcupinefish that we found at Santa Barbara Island.

(c) Reports and publications during fiscal year

There are eight trip reports for 1992 detailing significant findings, observations and work accomplished on each of the cruises. The 1992 report should be in draft form by the end of the calendar year. Draft reports for 1990 and 1991 are complete and waiting final approval. The 1982-1989 report is complete; however, there are problems with the data tables that need to be worked out.

(d) Status of any specimens collected

None were collected.

7. Appendices

a. Project staffing

- (Perm 0.5 FTE) Marine Biologist GS-11
- (Temp 0.4 FTE) Biological Technician GS-7
- (Temp 0.4 FTE) Biological Technician GS-5
- (Temp 0.4 FTE) Biological Technician GS-5

b. Plans for next fiscal year (Replaces Strategic Plan update this FY only)

Monitor 16 permanent stations. Continue random surveys for white abalone. Continue installing recruitment modules at the other stations with assistance of local dive clubs. Continue oceanographic monitoring at the highest level we can obtain. In addition to the term appointment, hire one GS-5 and two GS-7 Biological Technicians.

Taxa monitored in Kelp Forest Monitoring Project

ALGAE

Green Algae
Red Algae
Articulate Coralline Algae
Crustose Coralline Algae
Gelidium spp.
Gigartina spp.
Miscellaneous Brown Algae
Desmarestia spp.
Laminaria farlowii
Cystoseira spp.
Sargassum spp.
Macrocystis pyrifera adult
Macrocystis pyrifera juvenile
Eisenia arborea
Pterygophora californica
Laminaria farlowii
Miscellaneous plants

INVERTEBRATES

Sponges
Leucetta losangelensis
Tethya aurantia
Diaperoecia californica
Other bryozoans
Allopora californica
Tealia lofotensis
Lophogorgia chilensis
Muricea fructicosa
Muricea californica
Corynactis californica
Balanophyllia elegans
Astrangia lajollaensis
Hydroids
Diopatra ornata
Phragmatopoma californica
Spirobranchus spinosus
Cypraea spadicea
Astraea undosa
Astraea gibberosa
Patiria miniata
Pisaster giganteus
Pycnopodia helianthodes
Lytechinus anamesus
Strongylocentrotus franciscanus
Strongylocentrotus purpuratus
Parastichopus parvimensis
Pachythyone rubra
Haliotis rufescens
Haliotis corrugata
Haliotis fulgens
Kelletia kelletii

Megathura crenulata
Aplysia californica
Serpulorbis squamigerus
Hinnites giganteus
Balanus spp.
Panulirus interruptus
Tunicates
Styela montereyensis

SUBSTRATE

Bare Substrate

Substrates: Rock

Cobble

Sand

FISH

Lythrypnus dalli
Coryphopterus nicholsii
Alloclinus holderi
Chromis punctipinnis
Oxyjulis californica
Sebastes mystinus
Sebastes serranoides
Sebastes atrovirens
Paralabrax clathratus
Semicossiphus pulcher
Embiotoca jacksoni
Embiotoca lateralis
Damalichthys vacca
Hypsypops rubicundus
Girella nigricans

UNITED STATES DEPARTMENT OF THE INTERIOR

NATIONAL PARK SERVICE

ANNUAL ADMINISTRATIVE REPORT
(Long-term Monitoring)

Park: Channel Islands Region: Western

RMP Proj. Number(s): N-1.101

1. Project Title: Monitoring Pinnipeds

2. Project Objectives: Document long term changes in the distribution and abundance of each of the pinniped species. There are six species of pinnipeds that occur on the islands, four of which breed there.

3. Name(s), Institution, mailing address, and telephone number of principle investigator.

Dr. Robert DeLong
National Marine Fisheries Service
National Marine Mammal Laboratory
7600 Sand Point Way N.E. Bldg. 4
Seattle, WA 98115

Dr. Brent Stewart
Sea World Research Institute, Hubbs Marine Research Center
1700 South Shores Road
San Diego, CA 92109

Doyle Hanon
California Department of Fish and Game
c/o Southwest Fisheries Science Center
La Jolla Laboratory, National Marine Fisheries Service, NOAA
P.O. Box 271
La Jolla, CA 92038
(619) 546-7170

Jay Barlow
Southwest Fisheries Science Center
La Jolla Laboratory, National Marine Fisheries Service, NOAA
P.O. Box 271
La Jolla, CA 92038

4. Estimated funding amount(s) expended (including personnel time) during current FY. Enter funds (in dollars), FTE's supported, and agency/organization name for each funding source.

	\$	FTE	Name
a. NPS (WASO I&M)			
b. NPS (Region)			
c. NPS (Park Base)			
d. Other Fed. Agency	* \$320k+		National Marine Fisheries Service
e. State/Local Agency			
f. Non-profit Inst.			
g. Personal/Volunteer			
Total	\$320k+		NMFS

* Unable to contact one of the investigators at NMFS who conducts a portion of the monitoring. The \$320K is the minimum figure that is expended on pinniped monitoring within the park.

5. Name of ecosystem or habitat studied:
Coastal Islands/ Marine nearshore ecosystem

Name of Families of Orders studied:
Otariidae
Phocidae

Name of species (or Genera) studied:
Zalophus californianus
Callorhinus ursinus
Phoca vitulina
Mirounga angustirostris
Arctocephalus townsendi
Eumetopias jubatus

6. Please briefly address each of the following. Use additional sheets if necessary.

(a) Progress (Focus on relationship to 5-year strategic plan)
Monitoring has continued on a regular schedule for over ten years. Various research projects have been completed during this time.

(b) Significant findings

Stellar sea lion populations declined at San Miguel Island when northern populations did and they have not been seen on SMI in several years. Elephant seals have been found to dive to deeper depths than previously thought. Harbor seals interchange with the mainland groups and swim as far away as San Francisco. Elephant seals and California sea lions have increased their population in recent years.

(c) Reports and publications during fiscal year

In progress

(d) Status of any specimens collected

7. Appendices

a. Project staffing
No park staffing

b. Plans for next fiscal year (Replaces Strategic Plan update this FY only)
Continue monitoring as in the past. CHIS resource management will try to develop a system for gathering data together from the various research groups.

UNITED STATES DEPARTMENT OF THE INTERIOR

NATIONAL PARK SERVICE

ANNUAL ADMINISTRATIVE REPORT
(Long-term Monitoring)

Park: Channel Islands Region: Western

RMP Proj. Number(s): N-1.101

1. Project Title: Seabird Monitoring

2. Project Objectives: Monitor population dynamics of six seabird species and one shorebird as per the protocols in the Seabird Monitoring Handbook.

3. Name(s), Institution, mailing address, and telephone number of principle investigator.

Trudy Ingram
Wildlife Biologist
Channel Islands National Park
1901 Spinnaker Dr.
Ventura, CA 93001
805-658-5700

4. Estimated funding amount(s) expended (including personnel time) during current FY. Enter funds (in dollars), FTE's supported, and agency/organization name for each funding source.

	\$	FTE	Name
NPS (WASO I&M)	\$ 20K		
NPS (Region)			
NPS (Parkbase)	\$ 50K	1.5	
Other Fed. Agency			
State/Local	\$ 15K		Cal. Dept. of Fish & Game, Minerals Mgt. Service
Non-profit Inst.			
Personal/VIP			
TOTAL	\$ 85 K	1.5	

5. Name of ecosystem or habitat studied: Nesting seabirds dependent on marine environment for food and terrestrial environment (offshore islands and rocks) for rearing young. Nesting shorebird dependent on sand beach habitat.

Name of Families of Orders studied: Cormorants (Phalacrocoracidae), pelican (Pelecanidae), gull (Laridae), alcids (Alcidae), plover (Charadriidae).

Name of species (or Genera) studied: Double-crested Cormorant (*Phalacrocorax auritus*), Pelagic Cormorant (*P. pelagicus*), California Brown Pelican (*Pelecanus occidentalis californicus*), Western Gull (*Larus occidentalis*), Cassin's Auklet (*Ptychoramphus aleuticus*), Xantus' Murrelet (*Synthliboramphus hypoleuca*), Snowy Plover (*Charadrius alexandrinus nivosus*).

6. Please briefly address each of the following. Use additional sheets if necessary.

(a) Progress (Focus on relationship to 5-year strategic plan) Seabird monitoring has continued this year as part of the long-term monitoring program. Enough data now exists for some species (Brown Pelican, Double-crested Cormorant, Western Gull, Xantus' Murrelet) to begin to look at population trends.

The park contracted with the Point Reyes Bird Observatory to study the Western Snowy Plover on Santa Rosa Island. Counts of adults, nests, and fledglings were made throughout the summer. The investigator found that nests were lost to wind, ravens, island foxes, and cattle. Humans could contribute to nest loss.

(b) Significant findings
All species monitored (except Cassin's Auklet) experienced low to average reproductive effort (number of nesting pairs) and very low productivity (fledglings per nest attempt). This was likely the result of a strong El Nino event from January through June, 1992, which decreased food availability for birds during the nesting period. Cassin's Auklets avoided the major El Nino effect by delaying breeding.

The Point Reyes Bird Observatory mapped the area used by Snowy Plovers breeding on the east end of Santa Rosa Island. A preliminary assessment of disturbance and predation factors was made.

(c) Reports and publications during fiscal year

- 1990 Seabird Monitoring Report
- 1991-1992 Seabird Monitoring Report, in progress

- Report on the Western Snowy Plovers of Santa Rosa Island,
in progress

(d) Status of any specimens collected

N/A

7. Appendices

a. Project staffing

Wildlife Biologist (GS-09)	1.0 FTE
Seabird Biotech (GS-07)	0.5 FTE

b. Plans for next fiscal year (Replaces Strategic Plan update this FY only)

Continue to monitor seabirds as described in the seabird monitoring handbook. The park will once again fund the study by the Point Reyes Bird Observatory to obtain additional information on the Western Snowy Plovers on Santa Rosa Island.

UNITED STATES DEPARTMENT OF THE INTERIOR

NATIONAL PARK SERVICE

ANNUAL ADMINISTRATIVE REPORT
(Long-term Monitoring)

To be completed by individual Project Leaders and returned to the park I&M Program Coordinator.

Park: Channel Islands National Park Region: Western

RMP Proj. Number(s): CHIS N-1.101

1. Project Title: Monitor Terrestrial Natural Resources

2. Project Objectives:

The objective of the terrestrial monitoring program at CHIS is to initiate and implement long-term monitoring of selected terrestrial resources, in order to give park managers access to data regarding population status and trend. Such information is needed to make management decisions. Population trend monitoring will be initiated for terrestrial vegetation, mammals, landbirds, reptiles, amphibians, and invertebrates.

3. Name(s), Institution, mailing address, and telephone number of principle investigator.

Tim Coonan
Terrestrial Biologist
National Park Service
Channel Islands National Park
1901 Spinnaker Drive
Ventura, CA 93001
(805) 658-5700

4. Estimated funding amount(s) expended (including personnel time) during current FY. Enter funds (in dollars), FTE's supported, and agency/organization name for each funding source.

	\$	FTE	Name
NPS (WASO I&M)	20,000	0.4	
NPS (Region)	3,000	0.1	Western
NPS (Parkbase)			
Other Fed. Agency			
State/Local			
Non-profit Inst.			
Personal/VIP			
TOTAL	23,000	0.5	

¹ Exclude WASO I&M Funds

5. Name of ecosystem or habitat studied:

Coastal Island

Name of Families or Orders studied:

Cricetidae
Xantusiidae

Name of species (or Genera) studied:

Peromyscus maniculatus Deer mouse
Xantusia riversiana Island night lizard

6. Please briefly address each of the following. Use additional sheets if necessary.

(a) Progress (Focus on relationship to 5-year strategic plan)

During the last quarter of the fiscal year, a GS-11 Terrestrial Biologist and GS-07 Botanist were hired by the park to guide implementation of the terrestrial monitoring program. Heretofore, portions of the vertebrate monitoring program have been implemented by CPSU UC Davis personnel, or on contract. The new park staff coordinated with previous researchers to observe monitoring field techniques and methods of data storage and analysis.

(b) Significant findings

Deer mice densities on Santa Barbara Island in September were among the highest recorded during this long-term (12 years) study, probably due to favorable weather conditions (sufficient winter and spring precipitation).

(c) Reports and publications during fiscal year

None

(d) Status of any specimens collected

N/A

7. Appendices

a. Project staffing

GS-11 Terrestrial Biologist (CHIS)	0.2 FTE
GS-07 Botanist (CHIS)	0.2 FTE
GS-09 Biological Technician (CPSU)	0.1 FTE

b. Plans for next fiscal year (Replaces Strategic Plan update this FY only)

IN FY93, CHIS will hire a permanent GS-09 Wildlife Biologist for the terrestrial monitoring program, as well as 2-4 seasonal GS-05 Biological Technicians, allowing the terrestrial monitoring to be implemented on Santa Barbara, Anacapa, Santa Rosa and San Miguel islands.