

New research proposal to Western National Parks Association (WNPA)

The information supplied should be limited to the space provided and submitted on these forms.

A proposal received in any other format will be discarded. Additional attachments are not permitted.

Title of project: Saving Cultural Resources from Natural Resources: Salvage Archaeology in a Pinniped Rookery	Park(s) in which research is to be conducted: Channel Islands National Park
Name, address, and phone number of principal investigator (PI)(s): Kristin Hoppa, 1901 Spinnaker Dr. Ventura, CA 93101 Todd Braje, 5500 Campanile Dr, San Diego, CA 92182 Torben Rick, P.O. Box 37012 Smithsonian Inst. Washington D.C., 20013-7012	Payee information (individual name and address or institution's name and address required): Channel Islands National Park 1901 Spinnaker Dr. Ventura, CA 93101
Is this a multiyear project? <input type="radio"/> YES NO <input checked="" type="radio"/> Total amount requested: This year \$ <u>9,964.00</u> If multiyear project, estimated amount: Second year \$ _____ Third year \$ _____	Desired start date: <u>02/01/2020</u> Note: no earlier than October 15, 2019
Project duration: Project final completion date: <u>01/31/2021</u> (see research guidelines)	
Name(s) of research participant(s) who will acquire advanced degree(s) as a result of working on this project, if any:	Product(s) of research (articles, theses, maps, checklists, etc.) in addition to final report to WNPA (see research guidelines): Public lecture, conference paper and presentation

Abstract to be provided by PI(s). Do not exceed the half-page space provided below.

The following proposal requests funding for archaeological research at Point Bennett on western San Miguel Island, Channel Islands National Park. The Channel Islands have a unique and fascinating prehistory, with over 13,000 years of human occupation. The long span of continuous occupation combined with incredible preservation make the archaeological record on the Channel Islands significant at an international level. Point Bennett is unique because this small landform has archaeological sites spanning all of the Holocene, from 10,200 to 50 years before present. Point Bennett is also renowned for its pinniped rookery, which is one of the largest marine mammal breeding sites in North America. This protected breeding ground is critical for the survival of its resident sea lions, elephant seals, and fur seals; however, their presence comes with a cost to cultural resources. In 2009, WNPA funded testing of two middle Holocene sites within Point Bennett. Over the last decade, pinnipeds have destroyed more than one third of site SMI-527, along with greater portions of three untested sites nearby. The proposed project would follow up on the 2009 research by remapping the archaeological sites on Point Bennett, recording impacts from pinnipeds, and excavating small samples from erosional exposures of three untested sites. The project would be led by Drs. Kristin Hoppa (Channel Islands National Park), Todd Braje (San Diego State University), and Torben Rick (Smithsonian's National Museum of Natural History). All fieldwork would also include a Chumash tribal monitor, paid through matching (CR-ONPS project) funds from Channel Islands National Park. Results of this research would be shared with members of the public through a Shore-to-Sea lecture at Channel Islands National Park (broadcast live on Facebook and available through video archive on the park website), and through a presentation at the 2020 California Islands Symposium in Ventura, California.

(1) JUSTIFICATION (to be provided by submitting park): This section should specify the following: 1) Are NPS-appropriated funds available for the project (yes/no)? 2) Where does this project rank in the submitting park's research priorities for all funding sources? 3) Was this proposal solicited by the park? If not, why is this project important to the park? 4) How will this research enrich visitors' understanding of the park? 5) What are the implications for resource management?

The proposed research project was solicited by the cultural resources division of Channel Islands National Park to address our need to document and salvage several sites with high potential to yield data regarding the trans-Holocene occupation of San Miguel Island. These sites are all located within the Point Bennett marine mammal rookery and are being destroyed by the resident sea lions, elephant seals, and fur seals.

This research is a high priority for Channel Islands National Park because of the significance of these archaeological sites as well as their high level of vulnerability. Various factors at Point Bennett create a complex management challenge in which the natural resources are actively destroying the cultural resources. The sites in Point Bennett are also of great significance to the park's Chumash tribal partners because several have documented ceremonial uses. Although the park cannot stop the destruction of these sites, there is still (limited) time to document what is there and conduct salvage excavations. The park's cultural resource division has sought guidance for this project from tribal partners as well as from research experts.

Park Archeologist Kristin Hoppa visited these sites in May of 2019 with co-PIs Todd Braje (San Diego State University), and Torben Rick (Smithsonian's National Museum of Natural History). Over the past 20 years, Drs. Braje and Rick have repeatedly returned to Point Bennett and witnessed the devastating loss of cultural resources to coastal erosion and pinniped behavior. As the population has grown, pinnipeds have extended their range inland and upslope, as California sea lions are able to climb relatively steep inclines. The westernmost site on Point Bennett, CA-SMI-542, has been completely destroyed. Drs. Braje and Rick predict the remaining sites in this area will be similarly destroyed within the next decade. Their previous work in this region, including research funded by WNPA in 2004 and 2007, garnered high levels of public interest in the historical ecology of marine ecosystems, and yielded high resolution archaeological and paleocological data spanning the more than 10,000 year occupation of Point Bennett.

The implications for resource management at Point Bennett are severe; 10,000 years of history will likely be completely destroyed within the next ten years. Requested funds will be used for travel, fieldwork, and radiocarbon dates. All personnel costs for the principal investigators will be paid by their respective institutions. Personnel costs for a Chumash tribal monitor will be paid through matching funds (CR-ONPS project funds) from Channel Islands National Park.

(2) CONCISE STATEMENT OF RESEARCH OBJECTIVES, DESIGN, AND METHODOLOGY: This section should include the facilities and sites to be used. Note: limit this section to the two pages provided.

The objectives of this research are to document and salvage vulnerable archaeological sites within the Point Bennett pinniped rookery. There are six sites that were recorded between 1966 and 1978: CA-SMI-524, -525, -526, -527, -528, and -529. Although there have been subsequent assessments and limited testing, these sites still lack modern site records and accurate site maps. Three of the sites (CA-SMI-524, -528, and -529) have never been tested. All of these sites are at risk of being completely destroyed in the next decade. The proposed fieldwork would include updating site records and maps for all six sites, and limited testing of sites CA-SMI-524, -528, and -529.

The complex interaction of natural and cultural resources at Point Bennett create a number of logistical challenges. In addition to the breeding pinnipeds, there are nesting Western Gulls and Brants Cormorants in Point Bennett; therefore, fieldwork is limited to September-March, when San Miguel Island can only be reached by plane. The airstrip (and NPS housing) are more than six miles from Point Bennett and there are no vehicles on the island. There is a research station located at Point Bennett, but it is limited to five bunks, one of which would be needed for resident marine mammal expert Dr. Bob DeLong, who would ensure crew safety within the rookery. The other four spots would be filled by the three PIs and the Chumash tribal monitor. Fieldwork would be completed over the course of eight days, with an additional two days of travel on either end to allow for time to assemble supplies, complete project notes, and to accommodate shifts in schedule. (Flights to San Miguel Island are often canceled due to fog or other weather conditions).

Fieldwork would consist of three main tasks: survey/mapping, site recording, and excavation. Because the sites at Point Bennett are within sand dunes and heavily disturbed, it can be difficult to determine boundaries. The entire team would survey the area and flag out site boundaries and then one person would record the boundaries using an EOS Arrow GPS receiver while the rest of the team would begin updating site records with detailed notes on surface deposits. The PIs have a range of expertise covering floral, faunal, and lithic (stone) materials. Excavation would be limited to one 25 x 25 cm column sample on an erosional exposure of each site (CA-SMI-524, -528, and -529). Excavation would be done in arbitrary 10 cm intervals or within cultural strata if observable. All materials would be screened on site through 1/16" mesh. Diagnostic artifacts would be collected, along with a small sample of organic materials (e.g., shell) suitable for destructive testing (e.g., radiocarbon dating or oxygen isotope analysis). All other screened materials would be redeposited on site. Excavating column samples from erosional exposures minimizes the likelihood of unexpectedly encountering human remains; however, if human remains were encountered, excavation would stop immediately and tribal officials would be notified. All collected materials would be sorted at Channel Islands National Park and permanently curated at the Santa Barbara Museum of Natural History.

Results of fieldwork would be written up for a presentation at the California Islands Symposium in Ventura, California in October of 2020. This international, cross-disciplinary meeting is held once every four years and brings together researchers from all of the California Islands, including the islands of northern California and Baja, Mexico. Results would also be shared with members of the public through a Shore to Sea Lecture at the Channel Islands National Park visitor center. These lectures are free to attend and are broadcast live on Facebook to over 10,000 viewers and available as archived videos on the park's website. Finally, results would also be shared directly with tribal members. Tribal partners are concerned about the site destruction at Point Bennett and have requested further information on exactly what resources are being impacted. The documentation provided through this project would enable them to make further management recommendations.

(2) CONCISE STATEMENT OF RESEARCH OBJECTIVES, DESIGN, AND METHODOLOGY (continued):

(3) CONCISE STATEMENT OF HOW YOUR RESEARCH CAN ENHANCE THE INTERPRETIVE MISSION OF THE PARK: Also include one paragraph describing the plan for an interpretation-related product of the research. Use this page only.

San Miguel Island is a remote destination. According to visitor use statistics (IRMA), there were only 654 visitors ashore in 2018, representing <1% of the total visitors ashore within the park. Point Bennett is even more remote, as the area is restricted to visitors due to its use as a breeding ground for both pinnipeds and birds. Although few park visitors will ever see it, Point Bennett contains some of the most significant archaeological resources on the planet, representing >10,000 of years of occupation linked to the peopling of the Americas. It is likely that these cultural resources will be lost forever within the next decade.

This project has been designed with input from tribal partners and research experts. Drs. Braje and Rick's two decades of work on the Channel Islands has resulted in nearly 200 publications. The requested funds would allow for their participation and would bring their expertise to members of the public as well as the research community, through presentations and publications. In addition to yielding information about the prehistory of San Miguel Island, this project has the potential to serve as a valuable case study for how to balance competing natural and cultural resources. We have a suite of laws and regulations to protect cultural resources from human impacts (e.g., development), and there are several efforts within the National Park Service and the archaeological community at large to protect sites from environmental impacts (e.g., sea level rise and sea cliff retreat), but there are no clear solutions when cultural resources are being destroyed by natural resources. The pinnipeds on San Miguel Island are not invasive, but they are new. The Chumash hunted pinnipeds, as evidenced by the sometimes dense deposits of pinniped remains in archaeological sites. Yet at Point Bennett, the archaeological deposits have a surprisingly low percentage of pinniped bone, indicating that today's population does not reflect that of the past. In this way, archaeological sites record not only human behavior, but also changing ecosystem. The proposed study would allow for the documentation and salvage of this 10,000 year record before it is too late.

(4) **QUALIFICATIONS OF THE PI(S) CONDUCTING THE RESEARCH:** Use this page only. List only those qualifications directly related to this grant request. Include a list of other WNPFA-funded research conducted by this PI.

Kristin Hoppa is the Park Archeologist at Channel Islands National Park. She has a Ph.D. in Anthropology from the University of California at Santa Barbara and specializes in the prehistory of the Channel Islands. She has been working on both the northern and southern Channel Islands for the past 14 years. Her research in Channel Islands National Park has resulted in 5 publications and over 20 presentations to professionals and members of the public. She is co-PI on a 2019 WNPFA funded research project, "Navigating the Cultural Landscape: Traditional Chumash Place Names in Channel Islands National Park."

Todd Braje is a Professor of Anthropology at San Diego State University. He has a Ph.D. in Anthropology from the University of Oregon and specializes in the peopling of the Americas and the historical ecology of marine ecosystems. He has been working within Channel Islands National Park for the past 16 years and has generated over 90 publications, including 3 books on the archaeology and historical ecology of the Channel Islands. He has been a principal investigator on three WNPFA funded research projects: "Historical Ecology and Archaeology on San Miguel Island, California" (2004), "The Archaeology and Historical Ecology of Point Bennett, San Miguel Island, California" (2007), and "Historic Fishing Sites on Santa Rosa Island" (2011).

Torben Rick is the Curator of Human Environmental Interactions and North American Archaeology at the Smithsonian's National Museum of Natural History. He has a Ph.D. in Anthropology from the University of Oregon and specializes in archaeology and historical ecology, particularly in coastal regions. He has active field projects on California's Channel Islands and the Chesapeake Bay, which are collaborative with researchers from a variety of disciplines (anthropology, biology, ecology, etc.) and explore ancient and modern human environmental interactions. Dr. Rick has been working within Channel Islands National Park for the past 22 years and has generated over 100 publications, including 4 books.

Budget for New Research Proposal

Project title and submitting park: Saving Cultural Resources from Natural Resources: Salvage Archaeology in a Rookery
Channel Islands National Park

PERSONNEL EXPENSES

PRINCIPAL INVESTIGATOR(S)	Funds requested from WNPA	Cash or in-kind contribution (Please specify which type and source.)
1 Kristin Hoppa		
2 Todd Braje		
3 Torben Rick		

OTHER PERSONNEL (Specify number in brackets. Specify
duties to be performed to earn funds on next page.)

	Funds requested from WNPA	Cash or in-kind contribution (Please specify which type and source.)
1		
2		
3		
4		
5		

TOTAL PERSONNEL COSTS _____

OTHER EXPENSES

OTHER COSTS

1 Supplies and material		
2 Consulting services	\$ 2,500.00	\$8,000 (NPS)
3 Computer services		
4 Subcontracts (itemize on next page.)		
5 Equipment (itemize equipment costing more than \$100 each on next page)		
6 Travel and subsistence (itemize on next page)	\$ 7,476.00	

TOTAL OTHER COSTS

\$ 9,976.00

\$8,000

TOTAL PROJECT COSTS

\$ 9,976.00

\$8,000

If multiyear project, summarize estimated
subsequent year(s) budget(s) on next page.

COSTS (continued): Be sure to explain here the duties that will be performed by any funded individual.

We are requesting \$3,500 for travel to Ventura, California for co-PIs Todd Braje and Torben Rick. We estimate \$700 for a round trip flight from Washington D.C. to Los Angeles for T. Rick, plus \$1200 for a 12 day rental car from San Diego for T. Braje (who will pick up Rick), and \$1600 for 2 rooms in Ventura over 4 nights for both T. Braje and T. Rick (\$200/night for 2 nights on either end of the fieldwork)

We are requesting \$3,976 for fieldwork costs. We estimate \$3,000 for a round trip flight for four passengers from Ventura California to San Miguel Island on Channel Islands Aviation, as well as \$336 for 7 nights of NPS housing (\$12/person) and \$640 for eight days of food (\$20/person).

We are requesting \$2,500 for ten radiocarbon dates at \$250/sample.

Channel Islands National Park will provide in-kind funding of \$8,000 for a Chumash tribal monitor (\$125/hour for 64 hours) from CR-ONPS project funds allocated in fiscal year 2020.

A special note for researchers and the park superintendent:

WNPA is the funder of this grant on behalf of the NPS, and WNPA monitors progress, administers the payment schedule, and determines successful completion or default.

All other decisions regarding the conduct of this research grant (park access, laws, safety, protocols, etc.) and uses of the research, data, and its products (release of information, publication, intellectual property, etc.) rest in the hands of the NPS and are the responsibility of the NPS. Researchers and the NPS should clarify any questions or assumptions before accepting the grant.

Due to several factors, all WNPA grants are for ONE (1) YEAR ONLY; however we welcome and will carefully consider applications for second or third years following a successful first year.

Best wishes and hopes for a successful project. Thank you from WNPA.

I have read and agree to abide by the research guidelines in effect at the time of this application.

KRISTIN HOPPA

Digitally signed by KRISTIN HOPPA
Date: 2019.08.22 13:03:47 -07'00'

8/22/19

Signature of Principal Investigator(s)

Date

[Handwritten Signature]

8/29/19

Signature of Park Superintendent

Date

Signature of Chief of Interpretation

Date

For WNPA use only

WNPA Research Committee Review: Action and Date:

Amount Granted: