

OAK FOUNDATION—FORM I

NARRATIVE AND FINANCIAL REPORTING FORM FOR ANNUAL AND END-OF-GRANT REPORTS

Attachments to the report form:

- a. Financial report
- b. The Nature Conservancy's most recent audited financial statements
- c. The Nature Conservancy's 2004 Annual Report (with unaudited financial statements)

Section A — All grant recipients must complete this section

- A-1** *Date of this form:* February 28, 2005
- A-2** *Project title:* Protecting Spawning Aggregations from the Live Reef Fish Trade
- A-3** *Oak grant number and date of grant letter:* OUSA-02-089
November 28, 2002
- A-4** *Organisation name and address:* The Nature Conservancy
Asia-Pacific Region
4245 N. Fairfax Drive
Arlington, VA 22203
- A-4** *Date of grant period covered:* December 2003-November 2004
- A-5** *Contact person responsible for this grant:* Name: Dr. Andrew Smith
Phone: 680-488-2017 Fax: 680-488-4550
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A-6 Briefly list the goals and objectives described in your original grant request (or any revisions submitted subsequently).

1. Increase community awareness about destructive fishing by conducting workshops in six communities, three in PNG and three in the Solomon Islands.
2. Conduct spawning aggregation training for partners, and survey and monitor sites in Manus and New Ireland in PNG, and in the Arnavon Islands in the Solomon Islands.
3. Document traditional knowledge of spawning aggregations and their management.
4. Integrate spawning aggregation management into the design of locally managed marine areas.

A-7 Describe the grant objectives that have been achieved, in the reporting period, either in whole or in part.

1. Increase community awareness about destructive fishing by conducting workshops in six communities, three in PNG and three in the Solomon Islands.

Although the Conservancy held formal workshops in Papua New Guinea and the Solomon Islands in Year 1 of this grant, we decided to shift our strategy in the second year to more targeted community awareness activities that could cover a wider range of villages and have a greater impact on spawning aggregation protection. As a result, we combined our awareness-building activities with the documentation of local knowledge, village meetings, and establishment and ongoing monitoring of selected spawning aggregation sites.

In the last year, the Conservancy conducted a series of highly productive meetings and discussions with communities on the southern coast of Manus and throughout the Tigak and Dyaul Islands in Papua New Guinea and at Choiseul Island and Roviana Lagoon in the Solomon Islands. The results of these meetings are highlighted below.

Papua New Guinea

- In Pere, Locha, Peli and Tawi in southern Manus, four communities have imposed fishing restrictions on three large multi-species spawning aggregations within their customary fishing grounds.
- In Selapiu in the Tigak Islands of New Ireland, reef owners requested help with establishing a monitoring program to guide the management of their spawning aggregation.
- In Leon (Dyual) and Mait in the Dyual Islands of New Ireland, reef owners also requested help with establishing a monitoring program to manage their spawning aggregation.

Solomon Islands

- In Dundee, Roviana Lagoon, village leaders control a key spawning aggregation site where the Conservancy's monitoring support was requested. We are currently working with the Dundee Resource Management Committee to establish a marine protected area around the site that will be managed through the Roviana and Vonavona Lagoons Resource Management Program with assistance from the Conservancy.
- In Chivoko on Choiseul Island, the Conservancy held a series of meetings with the Lauru Land Conference of Tribal Community (the primary land owner organization on Choiseul) and Chivoko community during the grant period. As a result, they closed Zaruna Passage and the surrounding reef on February 1, 2005 to protect the large multi-species spawning aggregation in this area. At the time of writing, Vosa village in southern Choiseul had just closed two small islands, Zinoa Islands, and the surrounding reefs and requested the Conservancy's assistance with monitoring and management of the associated reefs. These

closures were the direct result of the presentations and discussions at the two Lauru Land Conference of Tribal Community meetings during the reporting period.

To ensure ongoing support to the communities involved with the project, we contracted two Community Conservation Coordinators in Papua New Guinea—Tapas Potuku in Kavieng and Manuai Matawai in Manus. Manuai Matawai has been seconded from the Provincial Fisheries for two years. The two Coordinators are from the areas in which we are working to implement spawning aggregation management. They are the primary contacts and liaisons for the Conservancy within the project communities and provide an ongoing presence within the communities, rather than the fly-in-fly-out approach. They also facilitate community meetings, help deliver awareness materials and programs on spawning aggregations and destructive fishing, assist with monitoring of the sites, and assist in developing the management options with the communities.

Although the Conservancy does not yet have a dedicated a Community Conservation Officer in the Solomon Islands, our Solomon Islands staff are engaging communities with support from our Melanesia Marine Programs Manager, Dr. Richard Hamilton. In addition, the Melanesia Program Director, Paul Lokani, and the Pacific Coastal Marine Program Director, Dr. Andrew Smith, also undertake awareness raising activities during each of their visits to the communities.

To gauge the effectiveness of the spawning aggregation awareness materials that were developed in the first year of this grant, the Conservancy hired an independent consultant to conduct a review in late 2004, with a report due in March 2005. The review involved obtaining baseline knowledge of destructive fishing and live reef fish trade issues by partners and schools in Port Moresby, Manus, Kavieng, and Kimbe Bay. We will conduct a follow-up survey in approximately six months to gauge the impact of the materials on the target audiences and assess which materials are most effective.

2. Conduct spawning aggregation training for partners, and survey and monitor sites in Manus and New Ireland in PNG, and in the Arnavon Islands in the Solomon Islands

Building on the training workshop held in Papua New Guinea in Year 1 of this grant, the Conservancy completed a training workshop in the Solomon Islands in March 2004. The workshop was held in collaboration with WWF at their Gizo site, and involved participants from government agencies, NGOs, and private dive operations. The training was used immediately at the WWF Gizo sites and in the Roviana and Vonavona Lagoons Marine Resource Management Project.

The Conservancy's Pacific Island Countries Program, Marine Initiative, and Indonesia Marine Program completed a spawning aggregation manual documenting monitoring and assessment protocols and training methods for the Asia Pacific Region. This manual has resolved the differences between the various programs and takes into consideration the lessons learned during the various Pacific training workshops held in the past two years, including the Papua New Guinea and Solomon Islands workshops.

The Pacific Islands Countries Program also prepared an associated field guide for spawning aggregation site monitoring. The field guide complements the monitoring manual and provides a basic "how-to" guide for setting up and conducting surveys. It will be distributed with the manual. In addition, a revised training video based on the manual and field guide is due for completion by March 2005. This video is an update of the version used in the Solomon Islands workshop.

In Kavieng, Community Conservation Officer Tapas Potuku led underwater visual census (UVC) surveys at six sites that were identified through the local knowledge survey in January 2004. These six sites were narrowed to two key sites where we established permanent transects and began monthly monitoring (weather permitting). The communities at the two sites are highly interested in effectively managing their marine resources. The Conservancy placed temperature data loggers at each sites, and we plan to continue monthly monitoring for 12 to 24 months. This monitoring data will allow us to determine the months of the year in which spawning aggregations of each species form, and the months in which the abundance of each species peaks. Defining peak spawning seasons is a vital prerequisite for developing future community-based and regional management measures such as closed seasons. Identifying peak seasonality is also important for developing the timeframes for conducting future UVC monitoring on spawning aggregations in the region.

In Manus, all of the Titan communities that own and exploit three key spawning aggregation sites asked the Conservancy to assist them in building their capacity to adequately monitor the status of their aggregation sites and institute management. In May, Community Conservation Coordinator Manuai Matawai and a team of local SCUBA divers from Pere and Peli began a long-term spawning aggregation monitoring program at the three sites. In July, after consultations with the relevant communities, the team established permanent transects at these sites and placed temperature data loggers. As noted above, obtaining this data for each species will be essential for designing future site-specific and regional spawning aggregation management plans in Manus.

In the Solomon Islands, the Conservancy's partners are using methods employed by this project to establish similar spawning aggregation monitoring programs. The Roviana and Vonavona Lagoons Resource Management Program has set up a monitoring program at Roviana Lagoon, and WWF Solomon Islands established a program at Gizo. Dr. Hamilton is providing technical advice to these initiatives. Representatives from these programs participated in the Solomon Islands Spawning Aggregation Monitoring workshop in March, and will also participate in the advanced monitoring workshop planned for June 2005 in Manus.

The Conservancy plans to analyze the results from all of the monitoring programs and prepare a detailed report in mid-2005, after the end of the 2005 Melanesia spawning season. The report will be presented and discussed at the advanced monitoring workshop in June.

3. Document traditional knowledge of spawning aggregations and their management.

After delays in the first year of this grant, the Conservancy completed our goal of documenting traditional knowledge this year, conducting surveys for the south coast of Manus, Kavieng, and the Tigak Islands in Papua New Guinea and for Roviana Lagoon and Choiseul in the Solomon Islands. The objectives of the traditional knowledge surveys were to:

- Identify the locations, seasonality, exploitation history, and current status of spawning aggregations in these regions.
- Collect preliminary data on existing local management practices and customary marine tenure estates in these regions.
- Identify the level of interest that communities have in managing their spawning aggregations, the capacity of communities to effectively manage spawning aggregations, and their information and expertise needs.

The local knowledge surveys in Kavieng documented information on 27 single- and multi-species aggregation sites and one migration route for *Plectropomus leopardus* and *Ctenochaetus striatus*. The surveys in Manus provided information on nine single- and multi-species aggregation sites.

In Roviana Lagoon, we documented local knowledge on 16 single- and multi-species aggregation sites. In addition, we recorded a wealth of entomological information for the aggregating species, along with customary management practices.

The Conservancy prepared two versions of a report on the results of the traditional knowledge documentation. The first version is restricted to only the key project staff (Dr. Andrew Smith, Paul Lokani, Dr. Richard Hamilton, Willie Atu, Tapas Potuku, and Manuai Matawai), and the other is for unrestricted use. In the unrestricted version of the report, the specific locations of the aggregations have been removed, along with information that interviewees provided in confidence. The Choiseul report is currently a restricted-only report, as the Lauru Land Conference of Tribal Community has asked that it not be distributed publicly at this stage.

Through these studies, the Conservancy also identified communities that were interested in monitoring and protecting their aggregations and provided follow-up support through the Community Conservation Coordinators. As a result of this work, one community at Dyual and one in Selapiu in the Tigak Islands have agreed to allow monitoring of their sites with the aim of developing management strategies. The Conservancy provided awareness presentations on spawning aggregations and species life histories to every community where we collected information. The exchange of information between the Conservancy team and the community fishers has continued through the grant period and has allowed both parties to further refine our understanding of spawning aggregations and species of concern.

In Manus, we achieved considerable progress as a result of the local knowledge documentation and the initial awareness-raising work by Dr. Hamilton and Manuai Matawai. An extract from their report (Hamilton, R. J., M. Matawai and T. Potuku, July 2004 – unrestricted version. pp 38-39) was provided in the last six-month report and demonstrated the value of this work and the success of taking a low-key approach.

4. Integrate spawning aggregation management into the design of locally managed marine areas.

As a result of this grant, locally managed protected areas have been established at three marine sites in southern Manus, one site in Dyual Islands and one in the Tigak Islands, one site in Roviana Lagoon, and two sites in Choiseul. These areas have varying degrees of management, from complete closures to restrictions on access and fishing methods, and most have some form of monitoring in place. Each protected area was identified and established by the communities based on information exchanges between the fishers and leaders in the communities and the Conservancy team. Because the communities themselves decided that these areas needed protection and management, we are confident that the protected areas will prove effective. Although the Conservancy will continue to provide monitoring support and management advice, the communities are completely responsible for management decisions and enforcement for the protected areas.

Although this work has been slow and sometimes tedious, the Conservancy believes that this targeted approach has resulted in effective locally managed marine areas. By working with communities that have clearly identified that they have a problem with either destructive fishing or overfishing, and have seen a decline in the spawning aggregations under their control, we have been able to address communities' key concerns. Through the positive relationships the Conservancy has developed with these communities, we are now able to work with them on additional marine resource management concerns, introduce the concepts of biodiversity conservation, and highlight the need to establish networks of marine protected areas (MPAs) through out the areas where we are working.

Since 2000, the Roviana and Vonavona Lagoons Resource Management Program has assisted local communities in the Roviana and Vonavona Lagoons in the Solomon Islands in establishing a network of MPAs under customary sea tenure. To date, communities have established 12 MPAs, most of which have been set up as permanent “no-take” zones. Only one of the original 12 MPAs included a possible spawning aggregation site for *P. areolatus*, *E. fuscoguttatus*, and *E. polyphkadion*. The Conservancy’s discussions with local communities over the grant period encouraged them to place a greater emphasis on adding MPAs based on spawning aggregation sites. As a result of these discussions and the information coming from the monitoring work, we are in the process of establishing a new MPA at one of the spawning aggregation monitoring sites.

This fall, Dr. Hamilton and other Conservancy Solomon Islands staff visited Chivoko, a community that had expressed a willingness to develop management options for their spawning aggregations. The meeting was highly successful in raising awareness of the importance of spawning aggregation protection. The Conservancy and the Secretary for the Luru Land Conference conducted a second visit to Chivoko in January-February 2005, where the community formally established a customary tambu area (MPA) that includes Zaruna Passage and the surrounding reef and will protect the large multi-species aggregation in this area.

A-8 Describe the grant objectives that have not yet been met.

Despite delays in the first half of the project, the Conservancy has completed all of our grant objectives. Initially, delays were caused by our struggle to hire a local candidate for the Melanesia Marine Programs Manager position. After several promising candidates fell through or accepted other positions, we decided to contract Dr. Richard Hamilton to move the science and community-based components of the project ahead. Dr. Hamilton’s qualifications and experience on the science and conservation of reef fish spawning aggregations, coupled with his fluency in both Papua New Guinea Tok Pidgin and Solomon Islands Pidjin, allowed the Conservancy to meet all of our grant objectives in spite of the earlier delays.

A-9 What steps are being taken to ensure the sustainability of your project and organization beyond the grant period?

Although the Oak Foundation grant period has ended, the Conservancy will continue the spawning aggregation project with funding from the U.S. Agency for International Development (USAID) until September 2005. At the end of the USAID grant period, we plan to integrate the spawning aggregation activities into ongoing Conservancy and partner work plans and activities in each country, rather than sustain the project as a separate program.

In Papua New Guinea, the work undertaken under the previous Oak Foundation grant for the live reef fish trade, this grant, and the USAID grant has enabled us to influence fisheries management nationally. The community-based activities on protecting spawning aggregations have provided practical entry-points to two key areas in the Bismarck Sea—Manus and Kavieng/Tigak—where the Conservancy plans to expand our work. Under this expansion plan, the spawning aggregation work will be continued within the context of the wider MPA network design, implementation, and conservation strategies. Additional funding for this work has been secured through a gift by an anonymous donor, which will be used to focus on some of the spawning aggregation research needs related to the network design.

In addition, the Conservancy is working with the National Fisheries Authority to incorporate the spawning aggregation project results into nearshore fisheries management. This work will be

funded through a National Fisheries Authority/Asian Development Bank nearshore fisheries management and development project.

In the Solomon Islands, the focus of the Conservancy's site-based work has been in the Arnavon Islands. With support from this grant, we began to expand our work to Choiseul Province, where we worked in partnership with the Lauru Land Conference to identify spawning aggregations for protection and better management. At present, we have a one-year grant from the MacArthur Foundation that includes some support for our spawning aggregation work in the Arnavon Islands and Choiseul. Identifying and securing additional funding will be a priority for the Conservancy in the next year.

A-10 If your project involves collaboration with other organizations, please comment on the impact of that collaboration.

The main Melanesia collaborating partners involved with this work have been:

- ***Papua New Guinea National Fisheries Authority:*** Based on our past collaborations on the live reef fish trade and, more recently, through our work with communities on protecting and managing spawning aggregations, the National Fisheries Authority has asked the Conservancy to partner with them to incorporate the spawning aggregation project results into nearshore fisheries management.
- ***Roviana and Vonavona Lagoons Resource Management Program:*** The Conservancy has assisted this group by providing management, scientific, and monitoring support which allowed them to expand their activities and the capacity of their monitoring team. The program has recently obtained funding support from Conservation International, ensuring its long-term sustainability.
- ***Lauru Land Conference of Tribal Community:*** As the primary land owners' association on Choiseul, the Lauru Land Conference is a significant partner whose support will help the Conservancy influence conservation throughout Choiseul and its adjacent waters. At the invitation of the Lauru Land Conference, we helped the organization establish its first environmental program, with the protection of spawning aggregation sites as the initial focus.

Other organizations providing spawning aggregation monitoring training and support for this project include WWF Solomon Islands and WWF Papua New Guinea, the Solomon Islands Ministry of Fisheries, Conservation International, Mahonia na Dari in Kimbe Bay, and Ailan Awareness in Kavieng.

A-11 Who else has funded this project and at what amount?

Additional funding for this project came from a three-year, \$500,000 grant from USAID entitled "Protecting Coral Reefs from Destructive Fishing Practices: Protecting and Managing Reef Fish Spawning Aggregations in the Pacific."

A-12 Has this project been replicated by your or any other group? Do you expect it to be replicated? Has any government adopted this approach and replicated the effort? If so, please give details.

As a result of this project, the Roviana and Vonavona Lagoons Resource Management Program, WWF (Gizo), and Mahonia na Dari have adopted the Conservancy's spawning aggregation

monitoring protocols. In addition, the Papua New Guinea National Fisheries Authority has asked the Conservancy to help incorporate the spawning aggregation project results into nearshore fisheries management in Papua New Guinea. In the Solomon Islands, the Luru Land Conference of Tribal Community on Choiseul has requested that we work with them to continue the monitoring approach we have developed.

A-13 Have all previously paid Oak grant funds been used? If not, when will they be fully expended?

Yes, all funds have been expended.

Section C – All grant recipients must sign this form

C-1 Signature of person responsible for this grant:

Andrew Smith
Signature

February 28, 2005
Date