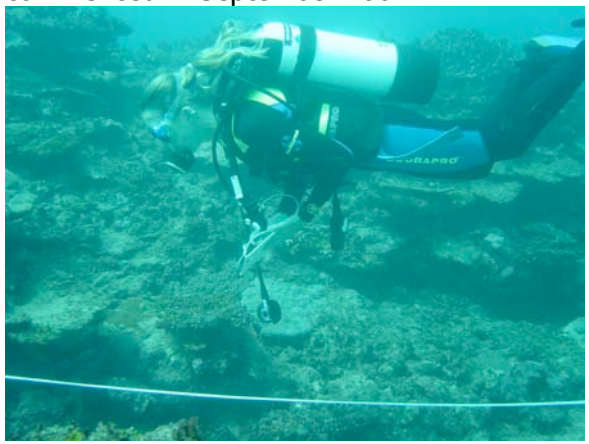
Blue Ventures Conservation
Andavadoaka, Madagascar
Research update, November 2004 – February 2005

conservation
education
research

Summer in Andavadoaka brings major developments in our research programme, including implementation of the Nosy Fasy marine protected area – the first step towards sustainable management of Andavadoaka's marine resources.

Coral Reef Monitoring

As part of Blue Ventures ongoing reef monitoring research, replicated permanent transects have continued to be established at selected reef sites throughout the Andavadoaka region, continuing the permanent monitoring programme commenced in September 2004.



Above fig. 1. Volunteers surveying one of the permanent transects on west Nosy Hao

The sites contained within this programme reflect the full range of geomorphological classes of reef found in the Andavadoaka region, as well as the full range of conditions of reef health found in the region.

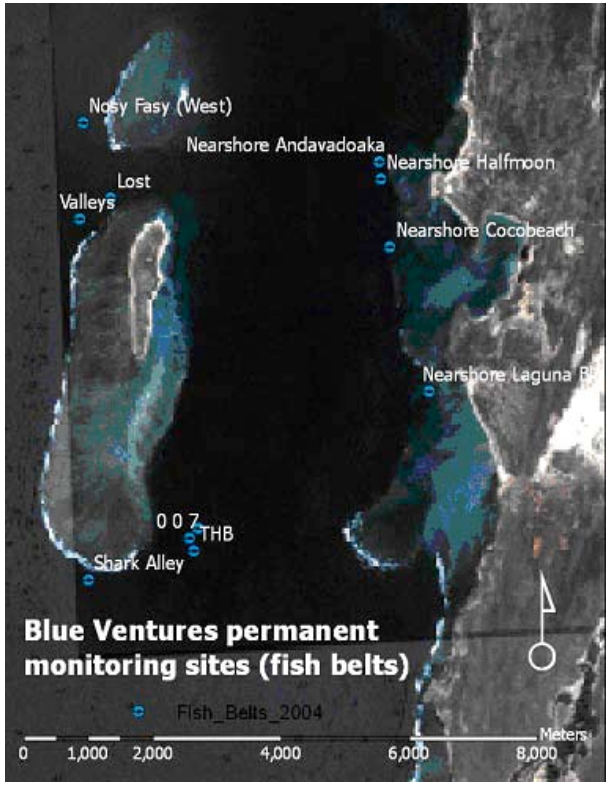
At each site, between 8 and 12 permanent tagged transect lines have been fixed to the reef surface, enabling survey teams to accurately return to the same survey site location for each subsequent re-survey.

In this way we have an excellent means of monitoring changes in the health and status of the region's coral reefs over time. It will be particularly interesting to study these trends as management plans for the region develop, notably those associated with the implementation of marine and coastal management plans such as no take zones and Marine Protected Areas (MPAs) in the vicinity.

Above fig. 2. Nosy Fasy sand cay and reef flat. This reef has recently been included in BV's permanent monitoring effort, to enable us to closely follow changes in reef health and status over time.

At the newly established Nosy Fasy permanent transect site the benthic At the At the newly established Nosy Fasy permanent transect site the benthic composition is shown to be very different to that within the Recruitment Reef complex, with data showing that the average transect at the Nosy Fasy site had just over 10% hard coral cover with around 60% of the benthos being dominated by turf and macro algae. This major degradation of the

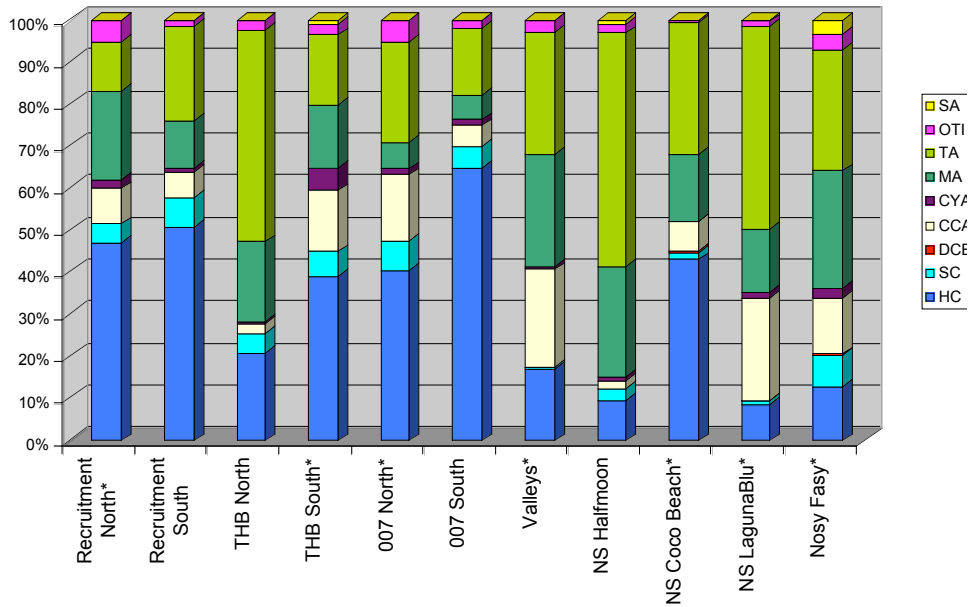
underlying coral substrate is likely to have been caused by bleaching events such as the El Nino event of 1998, and subsequent major events witnessed elsewhere in the southwest during 2001 and 2002.



Above, fig. 3, Satellite Image (LandSAT ETM) showing locations of permanent monitoring sites currently used for studying fish populations in Andvadoaka.

Evidence of such dramatic changes in reef health illustrate the importance of monitoring ecosystems over time, and stress the need for conservation effort to try and protect important habitats such as the Recruitment Reef complex that currently represent the healthiest and most viable reef habitats discovered in the area. The graph shown in Figure 4, which comprises research undertaken between November and December 2004, gives us a fascinating data set showing benthic composition and general reef health of all the recently constructed replicated permanent survey sites. It shows that in terms of assessing reef status and health based on the percentage of hard coral cover, 007 South appears to be the highest with over 60% hard coral cover. 007 North has significantly less hard coral then the South site, with coral cover of just under 40%. Within the Recruitment Complex the reef with the lowest coral cover is THB where in a similar pattern to 007 the South exhibits more coral cover than the North. This consistent trend of varying coral cover at the south and north sides of the reef sites could be due to the currents, which in turn affect recruitment of juveniles, or due to the presence of different coral species assemblages. At Recruitment Reef both the North and South site exhibit relatively high hard coral cover (both just under 50%). At Valleys, the spur and groove site to the northwest of the Nosy Hao reef flat, similar benthic compositions are observed to those at Nosy Fasy, with just under 15% hard coral cover and a dominance or turf and macro algae (representing over 50% of the substrate). Algal dominance was also observed at Nearshore Halfmoon and Nearshore LagunaBlu with less than 10% coral cover at both sites. Interestingly the newly surveyed Nearshore Coco Beach survey site was located on an almost completely homogenous outcrop of thriving *Pavona Clavus* which represents a fascinating contrast to the other, comparatively degraded nearshore sites.

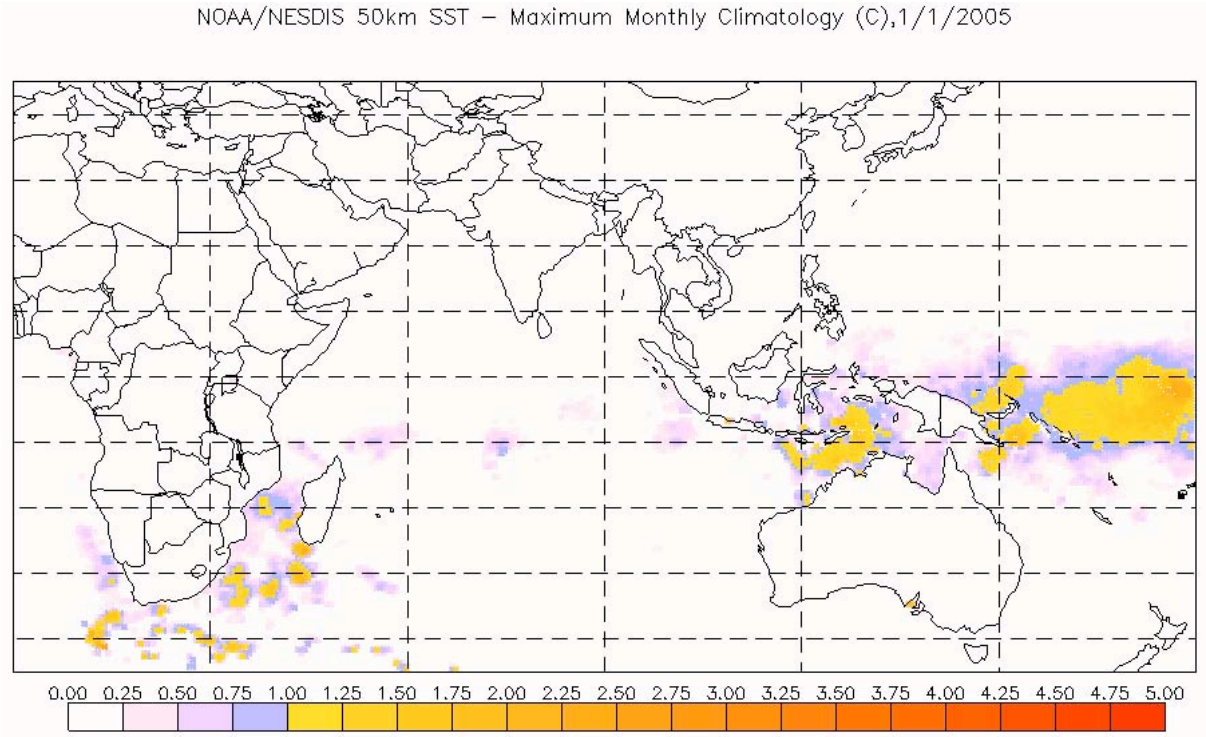
Right, fig. 4. Graph showing benthic composition at each of the permanent transect sites, following completion of the first 'baseline' permanent benthic sample, completed during Expedition 11 in December 2004. The values shown are the average cover values for all replicate transects taken at each site. (SA=sand, OTI=other invertebrates, TA=turf algae, MA=macro algae, CYA=cyanobacteria, CCA=crustose coralline algae, DCB=bleached coral, SC=soft coral, HC=hard coral)



Hot Water

Coral bleaching events are increasing on coral reefs the world over and are often noted on Andavadoaka reefs, especially during the hot austral summer and autumn months of December to March. The first bleaching of hard corals of the season was observed in acroporids at a shallow nearshore, site (<7m) in early January, when water temperatures reached 30ºC. Subsequently moderate bleaching (around 20% bleaching in affected colonies) of acroporids and pocilloporids were observed in deeper water (10-20m) at the recruitment complex, as well as very low levels of bleaching in some favites and lobphora colonies. Bleaching colonies have since recovered, and no bleaching-associated coral mortality has been reported. To measure sea water temperature changes through the summer months temperature loggers were deployed at two of the permanent reef monitoring stations.

Below fig. 5. Sea surface temperature Hotspot chart, an operational product from NOAA, showing regions of elevated surface temperatures throughout the tropics. The charts compare observed SSTs to the warmest monthly mean SST at each location. Anomalies, or hotspots, denote potential coral reef bleaching activity is most likely underway wherever a 0.1°C elevation above the monthly mean maximum is seen in the vicinity of a reef.



Each logger was positioned in 16m depth MLW and set to record every 4 hours, tracking temperature variation to within 0.1°c for several years. Every month data from the loggers will be retrieved to enable us to track changes in sea surface temperatures.

Out of the Water

In addition to Blue Ventures marine ecological monitoring, our conservation and research activities in the region continue to involve extensive social research and community environmental education and outreach programmes. This side of our work has undergone rapid growth and development over recent months, with the formation of a full time socioeconomic research team on site.

In Andavadoaka, scientists and research volunteers are currently working to undertake fisheries monitoring studies and surveys of village demographics, studying the flow and sustainability of ocean based products from Andavadoaka's artisanal fishery.

Our international and local research teams study traditional ecological knowledge (TEK) to enhance the sustainable management of the region's marine and coastal resources. Our research teams lead community initiatives

The New MPA in Andavadoaka, an Octopus no take zone

A sustainable fishery is essential to the sustainable development of Andavadoaka and its neighbouring communities as this is currently the driving force for the local economy. In a series of meetings held between the Andavadoaka fishing community and the Institut Halieutique et des Sciences Marines (IHSM), Blue Ventures (BV), Wildlife Conservation Society (WCS) and Copefrito (a Tulear based company that employs sous-collecteurs) during October 2004 it was collectively decided to close the 190-hectare patch reef surrounding the nearby island of Nosy Fasy, to all types of octopus fishing. The fishermen of Andavadoaka signed a traditional law, called a Dina, on 24th October to close the neighbouring island of Nosy Fasy, also known as Ankereo, to octopus fishing for 7 months from 1st November 2004.

Above fig. 6. Due to increased fishing pressure a high proportion of juveniles have been collected resulting in lower catch sizes.

The fishermen, village elders, Blue Ventures and World Conservation Society (WCS) worked together to produce the Dina because the fishermen and sous-collecteurs had noticed that the weights of individual octopus caught had decreased during 2003 and 2004.

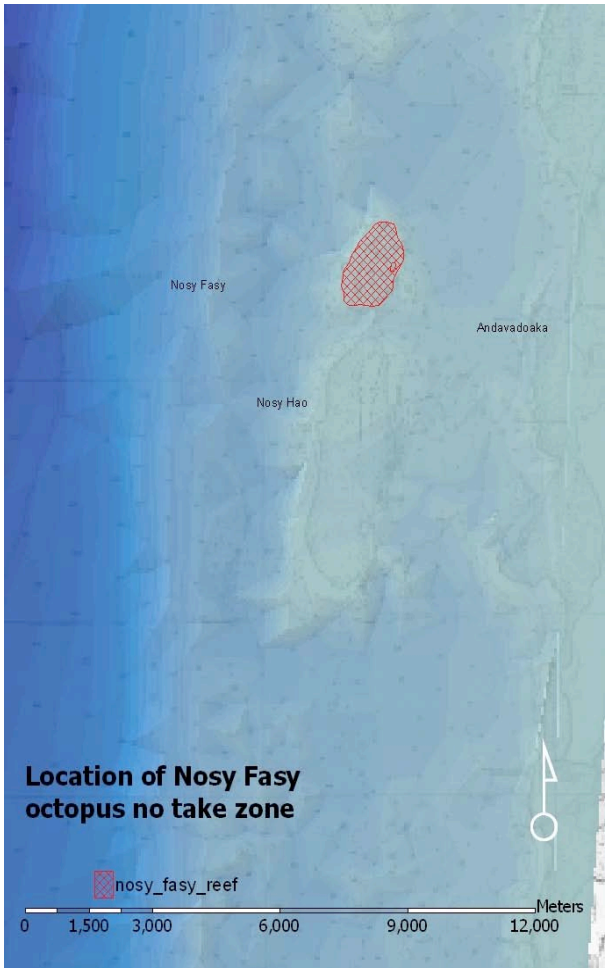
Data collected from the fishery in 2004 indicated that the majority of octopus caught are small (less than 800g in weight) and a high proportion of these are immature (see BV research update September - October 2004). Studies in Tanzania have shown that male *Octopus cyanea* reach sexual maturity at 320g, and females at 600g (Guard and Mgaya 2002). Monitoring of the Andavadoaka octopus fishery showed a high proportion of juveniles being collected throughout the region, with octopus catches from some fishing areas comprising over 50% of individuals of under 300g in weight.

To develop the Dina, Blue Ventures and WCS met with villagers and fishermen on three days starting on the 22nd October 2004. Fisherwomen, fishermen and village elders at the meetings discussed why the octopus were getting smaller and how a Dina could help to manage the problem. In the meetings, fishermen decided the penalties and regulations for octopus: any juvenile octopus, one smaller than 500g, should be released when caught and any fishermen possessing an octopus caught illegally from Nosy Fasy would be fined five times the market value of the octopus.

Above fig. 7. A meeting of local fishermen in the BV classroom, discussing plans for the Dina to prohibit octopus fishing on the Nosy Fasy reef.

The growth rate for *Octopus cyanea* is hig once the animal has reached between 500 an 1000 g. Therefore an individual weighing 50 grams on Nosy Fasy when the reef is close can reach a weight of 7–8 kg after six month according to the species standard growt curve.

Catch data have been collected on octopu caught at Nosy Fasy from May 2004 until th present and the anticipated effect of closure o the Nosy Fasy octopus fishery is of significant increase in the mean size of octopu harvested when the reef is reopened in Ma 2005. Once the reef is reopened to gleaning Copefrito has agreed to pay a larger sum fo octopus collected over 500g, the price of whic has not yet been decided.



Above fig. 8. Admiralty chart of the Nosy Hao region overlaid with depth model illustrating location of Nosy Fasy octopus no take zone.

The local fisheries cooperative, the Cooperative Maritime du 22ieme Parallel (CM22P), has employed a guard to ensure that no one takes octopus illegally. The first case of non-compliance occurred on 15th January. The guardian of the MPA caught a man trying to sell octopus caught on Nosy Fasy to the Le Havre fisheries collection vessel. Due to the recent cyclones which have prevented fishermen from going to sea for long periods of time, the individual has been given an extension to pay back the fine. Although it is unfortunate that someone broke the new community law it is reassuring to see that the enforcement mechanism is working.

To continue the octopus fishery management it is planned to rotate the octopus MPA between two reef flat units in the Andavadoaka area. A rotational octopus no-take zone has been proposed in order that fishers can have access to large (and more valuable in terms of price per gram) octopus from reef flat fishing grounds once a closed area is re-opened. Soon after one closed area is opened to fishing, another is closed to allow the octopus on the second flat to settle, grow, reproduce, and reach larger (and more commercially valuable) sizes.

Seafood Pathways in Andavadoaka

In coastal region of the commune of Befandel (the group of villages encompassing the Andavadoaka region) the economic pathways for marine resources are limited. A fisherfolk's catch is used for subsistence to be eaten within the household, given to friends or relatives, or is sold. To generate income fishers sell their fish to one of three major types of buyers: a sous-collector, to the local cooperative or directly to a collector. Additional markets include individuals, local hotels and guesthouses, and visitors from inland.

Two collection companies, both foreign-owned seafood processing and export companies, operate in Andavadoaka, Murex and Copefrito. Copefrito has speedboats that collect fish from the sous-collectors at various villages and deliver it to its collection ship, Le Havre that moors in Andavadoaka. Murex also uses speedboats but these travel to a village several dozen km south of Andavadoaka where trucks transport the marine products to Toliara.

Above fig. 9. Copefrito's collection boat *Le Havre* moored near Andavadoaka

Copefrito has distinguished itself from Murex, which has been in the area for many more years, by focusing on octopus and paying higher prices. Also, a former employee of Copefrito assisted the local fishermen to establish the cooperative called C22PM that has established the octopus enforcement.

The cooperative aims to negotiate good fish prices for fishermen and hopes to receive a portion of sales to enable it to sell fishing equipment and other products, such as rice, at cost price to its members. Both Copefrito and the cooperative are relatively recent additions to the local economy.

The sous-collecteurs are local entrepreneurs that act as middlemen between the fishermen and customers, utilising market forces to make an income. Sous-collecteurs are well established as they have been operating in the area for many decades. In contrast to the cooperative and Copefrito, sous-collecteurs are present in the coastal villages all year round and they purchase most species of fish caught.

There are several different types of sous-collecteurs. For example in Andavadoaka there are two sous-collecteurs that only buy octopus and only sell to Copefrito, one octopus sous-collecteur that sells only to Murex (a competitor of Copefrito) but also collects finfish, and an undetermined number of independent sous-collecteurs that salt or dry fish, including octopus, and sell the produce inland using traditional pathways.

Monitoring the octopus fiishery

Octopus is predominantly an export species. This means that to obtain the best prices fishermen sell to a company that will export the product. As Copefrito offers a higher price than Murex, fishermen tend to choose Copefrito sous-collecteurs over Murex sous-collecteurs. Thus, they are an ideal resource to monitor fish catch in the area. Blue Ventures has used its understanding of the local fishing economy to design a monitoring program for octopus collection.

By paying Copefrito's sous-collecteurs to weigh octopus and record fishing site, fishing methods, and details of each fishermen Blue Ventures is able to estimate total regional octopus catch, local harvests and pressure on individual fishing sites. Fishermen catch octopus during particular tidal regimes, spring tides, called a maree locally. Every two weeks Blue Ventures pays sous-collecteurs for the octopus harvest data recorded in the notebooks. Blue Ventures provides the sous-collecteurs with scales, buckets and notebooks to allow them to record individual octopus weights.

Currently Blue Ventures collects octopus harvest data from 15 collection stations in 11 villages. This recorded collection began in September 2004 (see BV research update September – October 2004). Preliminary analyses of the octopus data collected to date have shown that total octopus catches remained at around 500 Kg per month in the Andavadoaka region between August 04 and February 05. In December 04 only 200 Kg were caught, however this reduction has been attributed to the holiday periods and stormy weather. Nosy Hao and Ambataloake (around Andavadoka Rock) are the two dominant octopus fishing grounds, representing 40% and 20% of all octopus catch in the region respectively. For comparison, Nosy Fasy represented between 10% and 20% of catches before its closure.

Above fig. 10. A Local fisherwomen with her catch of *Octopus cyanea*.

On the whole, average octopus weights caught in the Andavadoaka region rose steadily from 600g in June 2004 to 800g in February 2005 (regression; $r^2=0.33$; $p=0.08$). It is possible that this could be related to a spawning period occurring during the winter months (May-June) followed by a period of growth throughout the year. However, as there is not a sufficiently reliable correlation between the size of octopus and their age, our research team is working to verify the peak breeding period by analyzing the variation in gonad maturity throughout the year by conducting dissections of individual samples. This research project is currently led by one of our new Malagasy team members, biologist Daniel Raberinary from the IHSM. This knowledge is needed for the appropriate management of this threatened resource. For example, the establishment of a minimum catch size, the establishment of periods of closure to fishing and the strengthening of our MPA.

Blue Ventures hopes to be able to show changes in harvest within the region and differences between different fishing sites. Of particular concern is the anticipated change in harvest when the popular octopus fishing ground in Nosy Hao is reopened on the 1st June after its closure of 7 months to octopus fishing. In anticipation of this period, we aim to complete our baseline fisheries and socio-economic research before the zone reopens to octopus fishing. We look forward to presenting the results of monitoring the change in size and maturity of octopus caught to villagers later this year, after Nosy Fasy is opened to octopus fishing again. In preparation for this event, Blue Ventures is stepping up its community outreach and education by conducting a series of MPA-related workshops, and the team is also busy installing a new improved public notice board.

Above fig. 11. The new Blue Ventures public notice board ready for installation.

Monitoring the Finfish Fishery

Volunteer observation onboard Copefrito's collection ship *Le Havre* has continued over recent months. Preliminary results from the first two months in 2005 show that most fish collected are emperors (40% of total weight), groupers (20%), snappers (14%), sweetlips (6%) and tuna (5%). We look forward to following the variation in the average size of these fish families over months and possibly years. The values for some species such as groupers may provide a good indicator of fishing pressure at each fishing site since these species have long life-spans and are often territorial. They surprisingly still collect fairly large individuals.

Socio-Economic Monitoring

In Andavadoaka, similarly to the rest of the world's coastal areas, there are many anthropogenic threats to the marine environment. In Andavadoaka we see few effects from nutrient enrichment, increased sediment or pollution associated with increased run-off from development. The localized anthropogenic pressures, as opposed to regional or global threats such as increasing sea temperatures, are predominantly caused by fishing. Specifically, overfishing and habitat degradation are the major barriers to a sustainable fishery (see BV research updates, June, July & August 2004).

As fishing is the major threat to its own sustainability it is critical that fishermen in the region understand their role in reducing the resources upon which they are dependent. Blue Ventures socio-economic research provides the information needed to manage a sustainable fishery by understanding the fisheries, the fishermen, and local development needs for improved quality of life and standard of living without environmental degradation.

Above fig. 12. Village Census, allowing Blue Ventures to accurately measure the change in the quality of life in Andavadoaka.

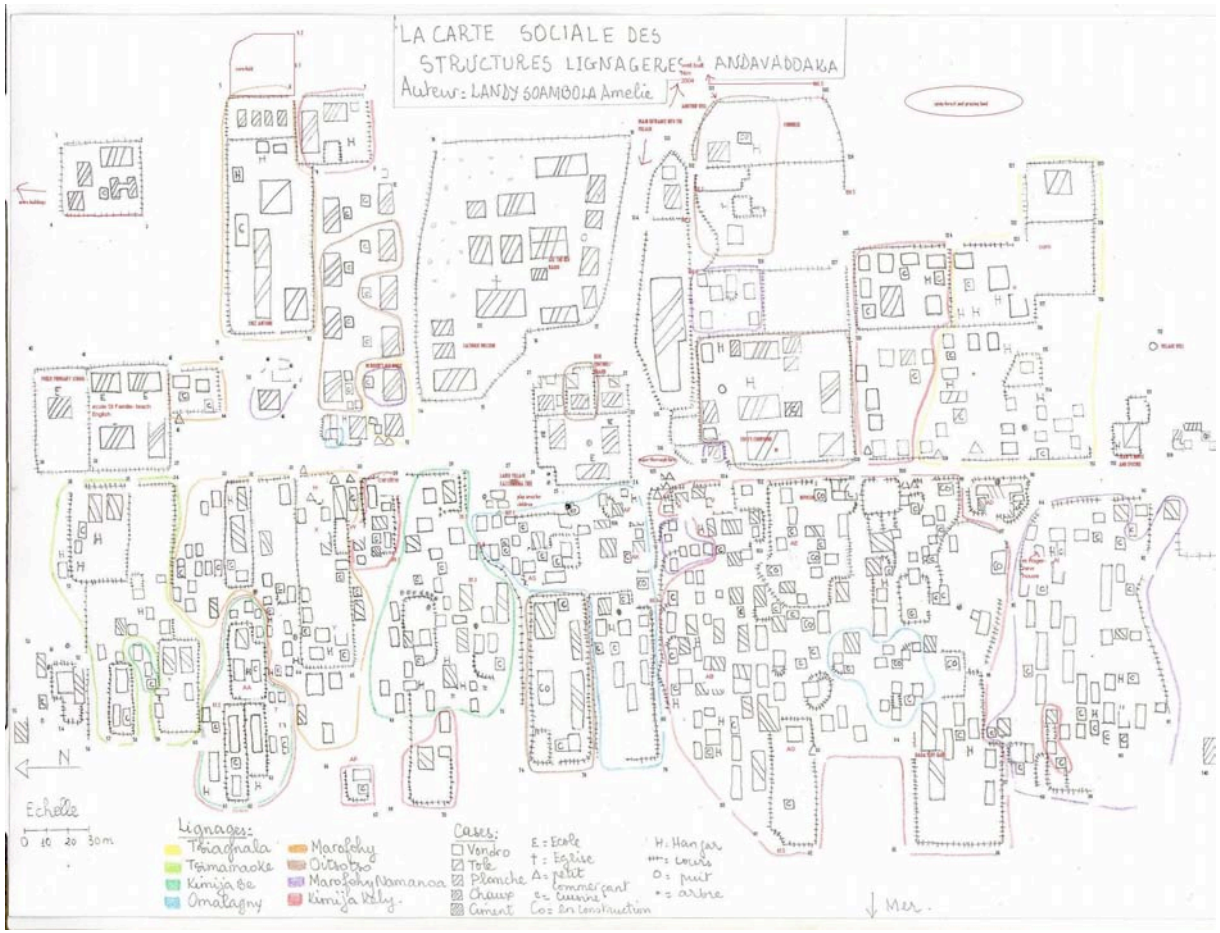
Blue Ventures three main areas of socio-economic research are village census, mapping and TEK. These provide the information needed to conserve and manage anthropogenic pressures on reef ecosystems and species important to fishermen's welfare. Baseline information collected on village demographics, sources of income, environmental perceptions and livelihoods allows Blue Ventures to develop appropriate resource management plans and alternative and supplementary sources of income for fishermen.

Census and village mapping update

Andavadoaka is rapidly changing. The economic influences of hotels and fisheries collection companies, together with the services they have brought such as increased generators and bars, has changed the face of Andavadoaka. Two years ago there was 1 rarely used hotel, 1 bar and 2 generators, now the village boasts 2 hotels, 4 bars and 6 generators. Some of the bars provide local entertainment with the 'cine-video,' a VCD-player linked to a television showing action and kung-fu films.

These examples of the changes seen since BV's arrival in Andavadoaka can best be understood by monitoring key socio-economic characteristics such as income, occupation, expenditure, education, health and perceptions of change.

Below fig. 13. Hand-drawn sketch of village from census survey, prior to digitisation and incorporation in project GIS.



The census underway in Andavadoaka already provides BV with a good understanding of the standard of living of the villagers. When complete, the baseline started by the census 6 months ago (see BV research update July-August 2004) will facilitate the monitoring of the impact of the local MPA and other interventions on the village. BV volunteers have been helping to geo-reference the village maps completed by two IHSM students in 2004. GPS provides the coordinates for the hand drawn maps so that they can be put into GIS and used to monitor change in infrastructure, standard of living (based on the materials the buildings are made from) and distribution of benefits (based on income within greater family groups). The census combines with the mapping to provide visual indicators to monitor change so that BV can adapt projects to increase benefits to the village.

Incorporating Traditional Ecological Knowledge (TEK) into Fisheries Management in Andavadoaka

Traditional Ecological Knowledge (TEK) in fisheries studies allows scientists to collect information on fishermen's knowledge and perception of their livelihoods and environment. In Andavadoaka, conducting TEK research allows BV and its partners to compare and expand the current state of scientific knowledge of Andavadoaka's environment using fishermen's knowledge. TEK allows scientists to verify existing research, gain knowledge of unsurveyed and unstudied environments, and understand the perceptions of fishermen. The latter is particularly important when trying to change existing behaviour as is the case when developing marine reserves.

Above fig. 14. Blue Ventures Volunteers conducting TEK Research on Andavadoaka's octopus fishing.

Blue Ventures with WCS and other partners used their understanding of the octopus fishing industry, gained from local experts and community consultation to help develop a marine protected area where no octopus fishing is permitted. The consultation highlighted the benefits of using local customs and laws, like the Dina, to establish the octopus reserve. Workshops held in the village provided researchers with an understanding of local fishing practices and support for management intervention that they used to close the octopus fishing ground. This example of using community participation and knowledge to identify and address a natural resource management problem illustrates the benefits of TEK. Research can also provide more profound insights into a community.

The next step for TEK in Andavadoaka

As previously illustrated, a sustainable fishery is essential to the sustainable development of Andavadoaka and its neighbouring communities. Documenting fishermen's knowledge of fishing practice, target species, fishing sites, and other knowledge of natural resources assists the development of resource management plans. Plans that embrace local knowledge are more likely to be comprehensive and culturally sensitive and thus lead to sustainable fisheries. These plans benefit from increased information gained by discovering the epistemology of marine resource names, relevant folklore, common knowledge and local understanding of habitats and lifecycles.

There are several approaches to TEK in Andavadoaka that are underway or planned, and these continue the social research first initiated by volunteers in early 2004. These approaches include mapping characteristics of fishing sites, producing resource use calendars that document temporal change, documenting the epistemological roots of Malagasy terms for marine resources and looking at fishermen's perceptions of change. Patterns of marine resource use, methods of

resource exploitation, methods of describing natural resources, and awareness of the state and changes of marine resources all reflect fishermen's knowledge of the marine environment. By using a variety of approaches Blue Ventures can assure a comprehensive understanding of TEK, which is essential to the sustainable management of the local fisheries which requires effective community consultation and communication.

Volunteers have an important role in TEK research in Andavadoaka

Blue Ventures volunteers regularly accompany fishermen on their pirogues to observe the methods of fishing firsthand. This has enabled collection of useful descriptions of most of the fishing methods used in the area. Research to date has shown that there is a total of 11 types of net used in the region.

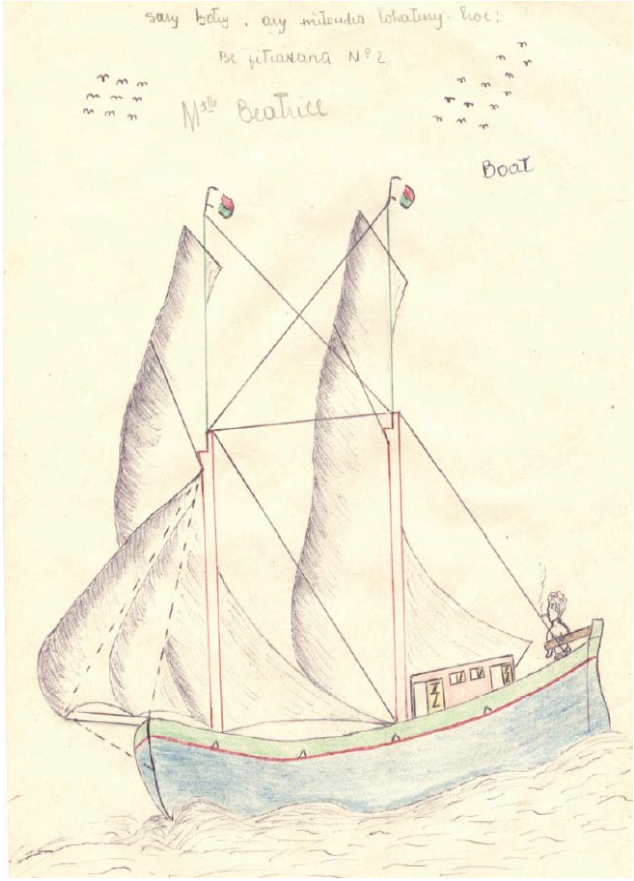
On a TEK observation trip volunteers spend the day with a fishermen and document the experience, providing a breakdown of time spent traveling and fishing as well describing the fishing method in detail. Bycatch and damage caused by the fishing methods can only be measured through these direct fisheries observations. Volunteers are essential to documenting these labour intensive research activities. Detailed documentation of the fishing methods used provides a better understanding of the intensity of fishing and allows a more thorough interpretation of fisheries data and analyses. Observational experience lends credibility to Blue Ventures efforts to assist resource management. By providing insights to allow the development of less destructive or more selective fishing methods, Blue Ventures can help to conserve the fish stocks more effectively.

Education and outreach: forging international friendships

Volunteers in recent expeditions have continued to teach English lessons in the primary school, Ecole Sainte Famille. As part of Blue Ventures'' education programme, past volunteer Gabrielle Johnson has initiated a letter exchange programme with her students at Laguna Blanca School in Santa Barbara, California, and the students at Ecole Sainte Famille school in Andavadaoaka.

"I thought the letter exchange would provide a great conduit to expose our fourth graders to a unique culture, as well as connect them more directly to an area we are studying in science.

In addition, it provides them with an opportunity to see how other cultures are often very similar to ours in terms of needs and wants. As part of the fourth grade science program, students learn about natural resources and conservation efforts. After understanding the basic ecological principles, I thought it necessary for them to understand the social and political aspects of conservation for them to have a better overall understanding of the many sides to conservation. At the end of the unit, we will discuss what they implement in their lives to contribute to change."



Above fig. 15. A boutre at Andavadoaka, drawn by Beatrice, aged 11, of the Ecole Sainte Famille.

Above fig. 14. Baobab Tree drawn by Emille, aged 9, of the Ecole Sainte Famille.

Malagasy students received letters and pictures from their American counterparts depicting daily life. The English classes used the letters as a basis to encourage the Malagasy students to write about their lives in Andavadoaka. Some challenges that arose included trying to explain the meaning of snowboarding and raccoons. In turn, the teachers in the US will probably have some difficulty explaining cassava and zebu to the US children.

Laguna Blanca students sent out their first letters, introducing themselves and their lives in Santa Barbara, in December, and have just received an impressive stack of letters and drawings back from Andavadoaka, where the Ecole Sainte Famille students have done their best to convey a sense of life in a small fishing village on the SW coast of Madagascar.

BV staff have also been helping adults in the village to learn English. Recently nuns from the Catholic Mission have come to our classrooms to study with BV staff.

Blue Ventures increases MPA profile in Andavadoaka

To keep the villagers up-to-date on research and activities volunteers constructed a new improved notice board that will be permanently installed in the village. With the help of the village president, Monsieur Roger, BV identified a busy central location for the notice board to allow us to better communicate with the village. The notice board will present information in English, French, Malagasy and Vezo and will be updated every expedition. We plan to present information on staff, volunteers, research projects and village workshops.

The notice board's first major theme is the MPA on Nosy Fasy. The poster describes the events leading up to the opening of the MPA such as the establishment of the Dina and the opening ceremony.

Additional posters that have been developed in recent months include information on fish aggregation devices (FADs). Plans are underway to replace FADs destroyed in cyclones last year (see BV research update March 2004).

Fishermen have been requesting new FADs during the last few months. Potential funding sources have been identified and planning is underway to purchase, transport and install the devices.

BV is planning a grand opening of the notice board when it is finally completed during March 2005. We hope to have a good turn out with the official opening of the board which will be open to although we will invite the village elders, the fishing cooperative, fishermen and the English class.

BV will also use the board project as an opportunity to introduce volunteers to the village as well as for forging closer ties with the fishermen. To make the most of this event Blue Ventures hopes to launch the next phase of Traditional Ecological Knowledge fisheries workshops during this gathering. We also hope to draw a crowd to two swimming races, under and over 15s.

Recording Events in Andavadoaka

The last four months have been a difficult time for the village. November's habitual drought saw the spiny forest become increasingly brown and the well water increasingly salty. Temperatures rose throughout November and December, along with significant increases in rice prices. This is thought to have been the factor responsible for a series of unfortunate incidents of cattle rustling, with hunger and poverty driving gangs from the inland Masikoro tribe to steal cattle from coastal Vezo tribe villages such as Andavadoaka and Ampasilava.

The rice prices rose due to deregulation on the national level, which placed undue economic burden on families. In Andavadoaka many children also stopped going to school as their families could no longer afford the fees. The cattle rustling, a common problem in farming communities came as a shock to this fishing village. The rustlers stole zebu from several families and intimidated hundreds of villagers - many of whom fled to the nearby island of Nosy Hao. Tragically, a member of the village was killed several miles inland, when in pursuit of the rustlers.

Christmas and the New Year brought celebration and renewal. However, January provided little respite from the strains of the last few months. An engine was stolen from the speedboat of the fish collection company, Copefrito, preventing fish collection from a number of sous-collecteurs. Cyclone Ernest and a series of intense tropical storms prevented fishing and food delivery, and destroyed many of the regions roads. The village buildings sustained little damage from the hurricane force winds, however sadly elsewhere in the Toliara region a number of fishermen were lost when fishing boats capsized in the cyclone.

Also in January Blue Ventures had the mixed privilege of seeing the MPA illegally fished and also the culprit promptly caught and fined. Fortunately, after the January storms, the austral autumn seems set to start with stunning weather.

OTHER BV NEWS…

Blue Ventures and partners shortlisted for the SEED Awards

Blue Ventures collaborative research project with Madagascar's Institut Halieutique et des Sciences Marines (IH.SM), has recently been selected as one of twelve finalists of the *Seed* Awards, an international contest to find the most promising, innovative and entrepreneurial partnerships for sustainable development.

With intense competition from over 260 entries from 66 countries, the Blue Ventures project 'Madagascar's first community-run, self-sustaining experimental Marine Protected Area' was chosen as a 'shining example of how economic development and environmental protection can go hand in hand, by the international panel which made the selection.

seed awards
2004/5
finalist

The announcement of the finalists was made by Achim Steiner, Director General of IUCN – the World Conservation Union, and Ian Johnson, Vice President of the World Bank, at a reception with government ministers from across the world attending the IUCN World Congress in Bangkok. Mr Steiner commented, 'the finalist projects demonstrate both the potential of partnership and the power of entrepreneurship. Together these form a vital force towards sustainable development.

The Awards are run by the *Seed* initiative, a partnership between the IUCN – the World Conservation Union, the United Nations Environment Programme (UNEP), and the United Nations Development Programme (UNDP). The initiative aims to inspire, support and build the capacity of locally-driven entrepreneurial partnerships to contribute to the delivery of the Millennium Development Goals and the Johannesburg Plan of Implementation.

We would like to thank the generous support of USAID and Lufthansa, who kindly funded Dr. Edouard Mara (Institut Halieutique et des Sciences Marines) and Alasdair Harris (Blue Ventures) to represent the partnership at the World Congress.

Bottom left fig. 16. *Institut Halieutique et des Sciences Marines (IHSM)* senior reef scientist Dr. Edouard Mara, speaking on behalf of the IHSM/BV partnership at the World Conservation Congress.

For further information on the *Seed* Awards, please contact Darian Stibbe of the *Seed* Secretariat at info@*Seed*init.org, or +44 1865 202 669 (htto://www.*Seed*init.org).

Blue Ventures wins Responsible Travel Award

Blue Ventures has been highly commended in the Responsible Travel Awards 2004. The Awards, in ten categories, are organized by online travel agent responsibletravel.com, in association with The Times, World Travel Market and Geographical Magazine – the magazine of The Royal Geographical Society. Over 700 nominations – including one from Archbishop Desmond Tutu - were received from tourists who were asked to identify holidays and tourism organisations that provided an enjoyable and a responsible travel experience. A number of past Blue Ventures volunteers stepped in to nominate our organisation.

The Awards recognize companies and organisations in the travel industry that are making a significant commitment to 'responsible' tourism – that is, projects which make a positive contribution to conservation and the economies of local communities, while minimizing the negative impacts that tourism can have.

Blue Ventures was highly commended in the 'Best in a Marine Environment' category.

HIGHLY COMMENDED
Best Marine/Beach
Responsible Tourism
Awards 2004
ORGANISED BY
RESPONSIBLETRAVEL.COM
IN ASSOCIATION WITH
THE TIMES • WORLD TRAVEL MARKET
• GEOGRAPHICAL MAGAZINE •

Launch of the Blue Ventures Malagasy Scholarship Programme

In December Blue Ventures was proud to announce the formation of a scholarship to support Malagasy nationals with an interest in marine conservation. The scholarship, the first of its kind in the Indian Ocean region, will fund one Malagasy national every six weeks to join our marine research expeditions in Andavadoaka. We hope to attract students and young conservationists from all over Madagascar to the programme, to provide a means of training more Malagasy nationals in SCUBA and tropical marine research techniques, and to help raise national awareness of the Andavadoaka project.