



environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

MINUTES OF THE MPA MANAGEMENT FORUM 2011:



Stillbay Marine Protected Area:
6 - 9 November 2011

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Fig 1: The Stillbay Harbor and site of the NSRI station:

Welcome by Dr Razeena Omar:

Dr Razeena Omar, the Chief Director: Integrated Coastal Management of the Department of Environmental Affairs welcomed everyone to Stillbay for the 2012 MPA Forum. She said how important this MPA Forum was in bringing together all sectors involved with MPAs and was encouraged by the extensive expertise that was present. The Forum was extremely important in fostering strong partnerships and was well respected.

Dr Omar said that the deliberations from the 2010 MPA Forum had been considered and included into 2011 DEA – Oceans & Coasts targets. This was especially important when considering the prioritization of declaring new MPAs in both the inshore and offshore sectors. Amathole MPA had recently been proclaimed and there was a full commitment to have the Prince Edward Islands in the southern oceans declared early in 2012. Dr Omar further mentioned that the mandates and roles of DAFF and DEA and the conservation agencies would be finalized. MPAs would squarely fall under the mandate of DEA-Oceans & Coasts and a special welcome was made to Mr. Xola Mkefe who would be heading up this section as the Director of Coastal and Biodiversity Conservation. Dr Alan Boyd would be moving across to research.

Apologies:

Apologies were noted from the following:

- Zintle Mapekula (DEA-Oceans & Coasts)
- Herman Oosthuizen (DEA-Oceans & Coasts)
- Jan Venter (ECPTA)
- Dr Serge Raemaekers (EEU)
- Rory Allardice (GRAA)

Acceptance of Previous Minutes:

Dr Alan Boyd and Mr Pierre De Villiers confirmed and accepted the minutes of the 2010 MPA Forum as a true reflection of the Forum.

Overview of Stillbay MPA: (Jean Du Plessis)

Mr Jean Du Plessis, the Conservation Manager of the Stillbay MPA presented an overview of the host site for the 2011 MPA Forum.

- Motivation for the MPA started in the mid 1990s and the MPA was proclaimed on the 17th Oct 2008.
- The MPA is approximately 3000ha in size and includes sections of the Goukou Estuary.
- It is a dual zoned MPA with diverse habitat variability.
- The MPA is managed by CapeNature via the management contract with DEA: Oceans & Coasts. There are 3 Staff (1 conservator & 2 field rangers) who have their offices at the Stillbay Municipality buildings
- The management plan was developed in 2009
- There are two patrol vessels, two vehicles & one motorbike that service the MPA.
- Monitoring, awareness and law enforcement are major management requirements.

Issues and Challenges of managing the Stillbay MPA:

- With only three staff, there is a need for more human resources!
- There is a need for closer alignment between DEA & DAFF regarding the issuing of permits as this is currently causing friction at ground level (e.g. commercial oyster harvesting & Stillbay Visvywers)
- Estuary Management is complex considering the high usage area and continual pressure
- External land use and influences (Goukou Estuary)
- Dedicated research projects are needed to fill knowledge gaps

Questions and comments arising from the presentation:

- MPAs cannot be managed in isolation and an integrated approach is needed
- All of our MPAs are facing increasing human pressure and, because of this, need greater management intensity.
- Monitoring and research undertaken on MPAs must feed directly into management needs
- Local interventions can lead to national changes as was showcased through the Galjoen Derby which went from a total “take” fishing competition to a virtually total “catch and release” competition. In iSimangaliso there are now 110 fishing competitions and of these only 20 are not catch and release.
- An integrated approach to compliance is needed and not just a law enforcement approach must be followed.
- Challenges that are facing MPAs need to be turned into opportunities.



**Fig 2: Goukou Estuary.
National Biodiversity Assessment: (Dr Kerry Sink)**

Dr Kerry Sink presented an overview of the National Biodiversity Assessment with key findings included.

Lessons learnt:

- Prioritization from a national level to a site level leads to improved co-ordination
- Finer resolution is also tackling the broader aspects
- This will be used to set priorities through DEA into the future NPAES
- We need to caution the use of an overall percentage of the coastline under MPA protection versus percentage of the different habitats that have been protected.
- Small MPAs are clearly more difficult to manage and this needs to be considered when allocating budgets.
- There is the need for a MPA review to look at if the MPA objectives are being met
- There is a critical need for awareness around marine issues and the value of MPAs
- It is critical that the Offshore Marine Protected Area process now moves into implementation and it is critical that there is strong stakeholder support and buy-in for the process.

• KEY FINDING	• PRIORITY ACTIONS
• 47 % of marine and coastal ecosystems are threatened.	<ul style="list-style-type: none"> • Constrain ecosystem impacts through integrated planning & co-ordinated ecosystem-based management across all sectors. • Identify and secure sensitive areas.
• 40% of marine and coastal ecosystems have zero protection.	<ul style="list-style-type: none"> • Expand South Africa's MPA network to include more ecosystems. Offshore MPAs & an MPA in Namaqualand must be proclaimed.
• Only 6% of ecosystems are well protected and several moderately protected ecosystems are also	<ul style="list-style-type: none"> • Increase the delivery of the existing MPA network by implementing more no-take zones, increasing benefits through diversified non-consumptive tourism activities and improving monitoring and management effectiveness.

threatened.	
<ul style="list-style-type: none"> Fishing remains the greatest pressure on coastal and marine biodiversity. 	<ul style="list-style-type: none"> Reduce harvesting impacts through the implementation of EAF. Fortify compliance efforts and reduce poaching. Identify and secure critical habitats for the recovery of key resources.
<ul style="list-style-type: none"> We have no in-situ measurements of ecosystem condition 	<ul style="list-style-type: none"> Establish field-based long term monitoring for each broad ecosystem type.
<ul style="list-style-type: none"> We know the status of less than 10% of harvested marine species 	<ul style="list-style-type: none"> Prioritize species for conservation assessment and determine status for priority species.
<ul style="list-style-type: none"> Invasive aliens are an emerging pressure 	<ul style="list-style-type: none"> Implement early detection and risk assessment programs and prevention and management for key species

Key Findings & Priority Actions of the National Biodiversity Assessment: 2011

Organizational Feedback for the 2011 Year:

Cape Nature:

Key Successes:

- An open-ended contract was signed with DEA: O & C.
- Working for the Coast teams are operating in some of the MPAs
- Successful education programmes are being implemented.
- Betty's Bay MPA has had huge successes in controlling rampant abalone poaching.
- Successful combined operations are taking place with SAPS, DAFF & CapeNature.
- Health & Safety is now fully embedded in CapeNature which improves safety aspects around MPAs.
- MPA and Reserve Management plans under revision.

Challenges:

- Training is needed in terms of Peace Officer & Firearm training.
- With the open-ended DEA: O & C contract, there will hopefully be more permanent vehicle allocations and specifically correct tow vehicles for the larger boats to conform to legal requirements.
- The one year employment contracts have caused bottlenecks in terms of spending budgets.
- Shortage of qualified skippers has reduced boat operations.

Opportunities for the Future:

- Conservation student posts will in future be reinstated as part of in-service training.
- Replacement of major capital items e.g. boats, needs to take place on a continuous basis.
- Research must be based on MPA deliverables.
- Increased cooperation between CapeNature and DAFF is needed. E.g. Stillbay oyster harvesting & experimental commercial fishing permits for fish traps at Stillbay.

Islands:

Key Successes

- Funding has been provided by DEA: O & C to maintain seal & Kelp Gull predation control on the Cape Gannet colony at Lamberts Bay.
- Biodiversity Management Plan (BMP) for the African Penguin is in the process of being developed.

Challenges:

- Sustainable funding is needed to maintain seal /gull / gannet project.
- Biodiversity Management Plan (BMP) for the African Penguin needs completion.

Future Opportunities:

- ICM/EPWP funding could be used to continue seal/**Kelp** Gull programme with the Lamberts Bay Cape Gannet colony.

Estuaries:

Key Successes:

- Cape Estuary Programme World Bank funding has ended but DEA: O&C and CapeNature are keeping the programme going.
- Funding is supported through partnerships with national government and local government.
- Management plans are still being produced for the various estuaries.
- Implementation of the management plans is in progress but slow.

Challenges:

- Illegal gill netting is taking place on almost all of the estuaries
- Sea Shore Act / ICM Act are not complementing one another
- Slipway / Jetty / Mooring buoy policy needs to be updated and nationally implemented
- Illegal breaching of river mouths is still taking place (e.g. Bot estuary)
- Poor recreational management of boats on estuaries is problematic, apart from Breede.

Opportunities for the Future:

- Funding for implementation of management plans
- Appointment of an implementing agent for ICM Act / Sea Shore Act - jetties, slipways.
- With the correct funding CapeNature could manage recreational boats on estuaries within MPAs and adjacent to protected areas.

C.A.P.E. Estuaries Programme:

- Governed by the C.A.P.E. Estuaries Programme Task Team (Government)
- C.A.P.E. Estuaries Programme Working Group and Technical Group provide specialist support
- The C.A.P.E. Estuaries Programme co-ordinates the implementation actions of different government departments and ensures stakeholder participation.

Supporting Documentation:

- Ten co-funded estuary management plans have been developed.
- Five co-management plans that support management authorities have been developed.
- A functional estuary requires freshwater links to sea and strict ecological reserves have been implemented.
- A catchment to coast philosophy is imperative

- An estuary management planning process culminates in an estuary management forum that prioritizes management interventions and proper reporting processes.
- These forums report to the Provincial Coastal Committees and are linked to the municipal coastal programmes.

South African National Parks:

Successes:

- Good budgets are available for all the MPAs
- All MPAs have good management plans
- **The only set back is where marine budgets are no longer ring-fenced, and get absorbed into the larger Protected Area budget. ACTION: Mr. X. Mkefe to revisit the MoU with SANParks to ensure MPA budgets are ring-fenced for MPA use only.**
- MPA managers are working despite the challenges that are being faced
- An Integrated Garden Route Management Plan has been developed that includes the coastal sector

Opportunities:

- Proclamation of the Namaqua MPA
- Ensuring the marine budget is available for MPA use
- **DAFF & DEA discussions are needed to resolve the current impasse around the Algoa Bay MPA proclamation.**

Ezemvelo KZN Wildlife:

Compliance:

Staff undertake beach, inshore and offshore patrols to enforce the Marine Living Resources Act & its regulations.

Patrol inspections 1st April – 30th September

Patrol Type	Number of patrols	Distance in kms
Vehicle/foot shore patrols (sea, estuary)	152	9 355kms
Boat (sea, estuary)	65	2 324kms
Road blocks/OPS	4	48
Dive patrols	1	26
Total	222	11 753

All prosecutions and transgressions are recorded on the EKZNW marine crime data base & prosecutions register

Prosecutions 1st April – 30th September

Type of Offence	Prosecutions	Total A.G's	Concluded court cases
Line fish shad	2	R 1 500	-
Anchoring in MPA	1	R 2 500	-
Fishing no permit	8	R 8 000	-
Totals	11	R 12 000	

Staff undertake inspections at the two registered launch sites: Rocky Bay & Umkomaas to enforce the Act & its regulations.

Point of Access Inspections 1st April – 30th September

Inspection Type	No. of Boats Inspected	No. of Fishers Inspected	No. of Angling permits inspected
Ski Boat (recreational)	162	340	234
Ski Boat (commercial)	5	5	5
Jet Ski	22	23	23
Dive Boats	54	-	21
Totals	243	368	283

Staff monitor and record all catch data at fishing competitions

1st April – 30th September

Name Competition	No Competitions	No Anglers/Boats
Tuna Bonanza	1	282
Glenmore Ski Boat Competition	1	4
Sezela Ski Boat Interclub	1	39

Totals	3	325
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Honorary Officers

Aliwal Shoal has a dedicated & trained group of 14 honorary officers

“Our Honorary officers supplement and support KZN Wildlife staff in carrying out their management goals & objectives.”

Honorary Officers Projects:

Attending shows & expos	Honorary Officer open day
Marine permit audit	Fishing competitions
Educational presentations & field visits	International beach cleanup

Highlights:

- Annual Coastal clean-up held on the 17th September attracted 397 volunteers that cleaned the Marine Protected Area.
- Sardines arrived late this year with netting taking place in July in the MPA with approximately 10 nets being laid over the month
- From the 22 – 26 August Ezemvelo staff assisted staff from Oceans & Coast with testing acoustic underwater equipment to be used in a shark tagging programme at Aliwal Shoal
- Impenjati Estuary Management Plan has been developed

Challenges:

- Appointment of a Conservation Manager for Impenjati
- Contractual Agreement between DEA: O&C and EKZNW
- Payments for MPAs
- Audit Report queries
- Change of Logos

Ezemvelo KZN Wildlife Ecological Advice Team

The role of Ezemvelo EcoAdvice team is to ensure that conservation management decisions are based on sound ecological principles and are founded on the best available scientific information, so that biodiversity is conserved and natural resource use is sustainable.

Living resource use & stock monitoring. (Maputaland Marine Reserve):

- Fish stock monitoring programme (tag & release, runs from 1 July one year to 30 June the next):
 - Target of 100 fish tagged in each of the estuarine, open ocean and sanctuary
 - Rod & line catch rates were generally low so considerable effort was put into achieving tagging targets
 - Achieved 135, 108 & 103 fish tagged in *estuarine, open ocean* and *sanctuary* components, respectively
 - Recovery rates will be analyzed and reported on in the 3rd quarter
 - Subsistence line-fishing monitoring takes place in the Maputaland Marine Reserve
 - Resource Use monitoring relies on monitors: Monitors were reappointed and trained in 2011
 - Tagging programme is starting to show increased recapture rates
 - Monitoring is ongoing

Key recreational activities - Sodwana Bay dive operations:

- Mary Pieters (Ezemvelo) collected data from the dive concessionaires at Sodwana Bay on a monthly basis
- Annual report was completed for the period April 2010 to March 2011
- Monitoring is ongoing – data for the period April 2011 to 30 September 2011 show a similar pattern

Rocky Reef Monitoring:

- Long term monitoring of reef biodiversity – currently only benthos
- 6 reefs were surveyed in 2010/11 (Saxon Reef @ Kosi Bay, 2-mile @ Sodwana Bay, Leadsman Shoal, Umhlali, Aliwal Shoal and Umtwalume).
- Method: Digital photographs of quadrats, from which benthic cover is estimated.
- 4 Underwater Temperature Recorders are placed at Sodwana Bay, Cape Vidal (Leadsman), Umhlali & Aliwal Shoal.
- Data were retrieved 6-monthly
- Preliminary results show a possible slight increase in temperature at Aliwal Shoal and Umhlali, and a possible slight decrease at Leadsman Shoal and Sodwana Bay
- 3 sites/reefs sampled- Kosi Bay, Sodwana Bay and Aliwal Shoal

Rocky Shore Monitoring:

- Long term monitoring of Rocky Shore biodiversity
- 6 sites surveyed in 2010/11 (Black Rock, Maphelane, Ballito, Isipingo, Rocky Bay (within Aliwal Shoal MPA) & Trafalgar MPA).
- Progress as at end September 2011:
 - Four sites completed:
 - Trafalgar, Rocky Bay, Maphelane, Ballito
- Overall results will be reported in an Annual Report

Sandy Beach Monitoring:

- Aim is to look at impacts of beach driving (at boat launch sites) on macrofaunal communities
- 3 sites - Sodwana Bay, Cape Vidal and Maphelane – boat launch site vs. non-impacted site
- Annual Report was completed for 2010/11
- Progress this year - sampling will only be done in January 2012 – first spring low after holiday season
- Results will be included in the Annual Report.

Turtle Monitoring in iSimangaliso

- 2010/11 monitoring season was completed successfully (Oct 2010 to Mar 2011)
- 2010/11 final report is currently being compiled
- The 2011/2012 turtle monitoring season, started in October 2011 and data collection to continue until March 2012
- Turtle monitor training for 2011/12 was done in early October 2011

Coastal Systems Monitoring – Estuaries:

- “State of Estuary Mouth” monitoring and associated database.
- Progress up to September 2011, 570 entries were captured into the “State of Estuary Mouth” database;
- Annual photographic record of KZN estuaries and updating of the “Estuaries of KZN” database.
- Completed in September 2011 – All 73 estuaries photographed

- Responding to and documenting requests to manipulate the mouth of an estuary.
- Together with KZN DEARD, attended to the environmental concerns related to the MT Phoenix that ran aground at Sheffield Beach on 26 July 2011
- An Environmental Risk Mitigation Plan was drawn up
- Joint Response Committee Meetings were attended with SAMSA & salvage company (Smit)
- Mhlali estuary had to be artificially closed to prevent oil/fuel ingress from the grounded ship (approx. 2km south of the estuary)
- Started fish species sampling in estuaries in EKZMW protected areas
- Umtamvuna estuary sampled in September to update species list
- Diverse array of fish species were found; a number have been sent to SANBI for positive identification
- Amatigulu is the next system we plan to survey – in February 2012

Monitoring the Status of Lake St. Lucia

- Salinity has been measured every two weeks at 6 stations (Charters Creek, Makakatana, Fanies Island, False Bay Park, Ndlozi jetty and Catalina Bay) and weekly at 2 stations (St Lucia bridge and the St Lucia EKZMW jetty).
- Lake levels have been monitored at St Lucia bridge.
- Additional observations are also made from a boat and include salinity, water depth, presence of macrophytes and *ad hoc* observations of birds.
- Winter (July) Coordinated Waterbird Counts (CWAC) were completed for St. Lucia

iSimangaliso Wetland Park:

World Heritage Site:

In 1999 iSimangaliso was inscribed onto the World Heritage List under the following criteria:

- ecological and biological processes;
- superlative natural phenomena, and
- biological diversity and threatened species.

Biodiversity Richness

- A total of 2,185 plant species of which 230 species are endemic
- There are 991 marine, 200 estuarine and 55 freshwater fish species
- 109 species of reptiles
- 521 bird species
- 129 species of terrestrial and marine mammals

Key Successes

- Addressing poaching & illegal fishing
- Loggerhead Turtle Poaching Case: In March 2011 the accused was convicted & sentenced to a direct 5 year prison sentence.
- 3 people were arrested with 174 shad (Elf) and were convicted and sentenced to R15,000.00 each.
- 16952 m of gill net seized and destroyed
- 37 people arrested for various marine related offences.

Illegal Developments: How serious is the problem?

- 44 registered illegal developments within the Coastal Forest Reserve, ranging from cleared camp sites, to small holiday camps/cottages to large commercial developments.
- Indications of organised crime and in some cases evidence of racketeering

Successes up to now against illegal developments:

- Criminal Cases – 3 cases concluded & 1 pending. General sentence was R100,000.00 and a 5 year prison sentence suspended for 5 years.
- Civil Cases – Orders against 11 respondents granted by the High Court (6 developments). The recent ones (in last 2 months) being Inyoni Hide Away Lodge and Roelofse development. The last development is now in the High Court and is set down for the 11/11/2011.

Voluntary Restoration Programme:

- Eight unauthorized developers were invited to ‘do the right thing’ by vacating the park and allow the authority to rehabilitate the area at the park’s cost.
- Five of the eight developers signed the agreement and vacated their holiday camps/resorts.
- Civil High Court action was taken against those that refused to participate.

Integrated Management Plan approved by Minister:

- Can now implement new zonation.
- Can introduce other marine conservation initiatives such as the revised fish list of species of fish that may be caught.
- Provides a framework for improving management effectiveness.

Marine Conservation Awareness:

- Oceans & Coasts – iSimangaliso Marine Environmental Education Programme – 240 learners.
- Eco-schools – 130 learners
- Marine Conservation (Schools based) – 1200 learners

Charter Fishing Regulated:

- Limited number of Charter Fishing permits awarded
- Established strict conditions on tackle and standards
- No bottom fish
- Bill fish may only be tagged and released.
- No sharks may be killed or boated.
- Self-monitoring established.
- This has resulted in an improved product for tourists
- Prohibition on Vertical Jigging achieved
- Made use of NEMPAA to ban this activity.
- Supported by organised angling.
- Has saved hundreds if not thousands of fish from a barotrauma death

Key Challenges:

- Offshore Compliance
- Shortage of vessels
- Shortage of confident and skilled marine officers
- High energy coast line & dangerous launching conditions.
- Commercial fishing operators
- Revision of MLRA regulations for the park.
- Proclamation under the MLRA for the extension of the MPA from Cape Vidal to Maphelane.
- Regulation on subsistence fishery (Kosi mouth and intertidal areas)
- Fresh water requirements for St Lucia (GEF programme)

Key Opportunities:

- Introduction of a fish list.
- Banning of killing of any shark or skate/ray.
- Introduction on regulation of terminal tackle.
- Implementation of IMP zonation and conditions.
- GEF programme to find a solution for Lake St Lucia's fresh water needs. Going to allow Umfolozi River to breach St Lucia.

The development of an Offshore Spatial Management Network for South Africa:

Successes

- Extensive stakeholder engagement
- Collaborative research
- 10 Focus areas have been identified of where to place offshore MPAs
- Have set a process to implement the planning
- Important to maintain engagement and support.

Challenges:

- Implementation
- Consultative structures
- Maintaining scientific support
- Boundary determination with stakeholder input
- Time lapse will result in the need to re-engage stakeholders in a changing offshore seascape

Opportunities:

- The stage is set to now develop an implementation strategy for OMPAs
- A co-ordinated **network** of spatially efficient representative OMPAs that are implemented simultaneously
- Protect threatened and sensitive habitats and species
- Support fisheries sustainability

DEA – Oceans & Coasts:

What were DEA's objectives for MPA management (as asked in 2010)?

- Effective management of all SA's MPAs
- Expansion of marine protection (new MPAs, rezoning of some areas)
- Expansion of socio-economic benefits
- Communication, awareness, education and training
- Integration of MPAs into the broader elements of landscape, seascape and society; and to contribute to regional and global needs
- These became the targets in 2011

Marine Protected Areas: Successes

- All 21 of SA's MPAs are being managed on a funded basis by assigned management authorities who manage adjacent terrestrial conservation areas.
- Contracts are in place with 7 organizations in this regard and apart from the agreement with EKZNW which is valid to 2013, these are on an open ended basis, meaning a long term mutual commitment by organizations.
- However implementation needs attention and support

- The Amathole MPA became the 21st South African MPA to be declared, in September 2011.
- The new Directorate level structure for MPA, Estuaries and Non-Consumptive Use has been implemented as part of the new structure of the Branch: Oceans and Coasts within the DEA.
- The Director position has been filled, the MPA Deputy Director position advertised, with others hopefully soon to come.
- This forum is being held for the 5th successive year, and now has expanded in scope and stature, and the key role of the WWF in this is acknowledged
- Mixed progress in other areas

Challenges and opportunities

- The various advisory bodies proposed at the previous Forum and elsewhere for advising on MPA management have not yet been put in place
- Nevertheless several meetings of an MPA Expansion Group, and a workshop in KZN, have been held
- The split in the responsibilities of MCM between DEA and DAFF is still a matter that will require additional co-ordination between our organizations, in order to ensure co-operation in overlapping areas.
- On the national level, a protected area rationalization study was undertaken, but it dealt very lightly with MPAs
- Ongoing involvement of local communities in issues and benefits has yet to reach finalization in longstanding problem areas, but Kogelberg is looking up.

Expansion Issues

- The 2004 NSBA and the National Protected Area Expansion Strategy of 2008 are being supported by systematic conservation planning.
- We have seen presentations, but are still awaiting the release of the 2011 National Biodiversity Assessment
- Outcome 10 through which government is holding itself accountable for biodiversity protection, is an opportunity to keep MPA expansion prioritized.
- Current priority is the “Prince Edward Islands” MPA for declaration; and Addo expansion for unblocking.
- But the required increase in high protection can also gainfully be advanced by Betty’s Bay and part of Robberg becoming no-take areas, where only recreational fishing will be impacted.

Related DEA matters

- The National Estuarine Management Protocol has been through many additional processes and will hopefully shortly be the key instrument for protection of estuaries
- This will be through the development of estuarine management plans and by taking on board the recommendations of the 2011 NBA for estuaries.
- SA’s coastal islands and seabird populations are now also being managed in an increasingly coordinated manner by the DEA and agencies.
- As are our other top predators, including whales, sharks and turtles.
- Lastly... Whilst the BBWW and WSCD allocations are now virtually complete, the added challenges of managing these sectors remains, and new staff are urgently needed if the MPA objectives are to be realized.

Namibia:

- Regulations still need to be gazetted for the MPA
- Opportunities exist for a transboundary MPA, via the Orange River estuary process, and an initial workshop is needed to set this in motion

- It was suggested that a larger transboundary meeting be held that included the SA, NIMPA, Orange River Estuary, iSimangaliso and Mozambique representation.

Mozambique: Ponta do Ouro Partial Marine Reserve:

- There are opportunities for transboundary implementation through setting up operational meetings
- It needs to be noted that as South Africa tightens up its regulations this has negative consequences for Mozambique as transgressors move from South Africa to Mozambique
- The port development issues in Mozambique will threaten South African reef systems and biodiversity
- The area is a top priority for World Heritage Site declaration

Law enforcement:

- Vehicle Patrols: 65 – 7,702.00 Km
- Quad bike Patrols: 16 – 879.3 Km
- Boating Patrols: 18 – 30:07 Hours
- Marine Guards & Navy:
- Foot Patrols:
- Ponta Dobela to Ponta Chemucane (\pm 20km),
- Ponta do Ouro to Ponta Malongane (\pm 8km)
- FINES: 160,000.00 MZM (50,000.00 ZAR)

Monitoring:

- Anglers & mussel harvesting
- Turtles
- Dolphin
- Line fishing
- Litter
- Incidents
- Launches - Ponta do Ouro
- Coral reef
- A clear deterioration of the condition of the coral communities;
- Pelagic predatory fish very scarce, along with low rockcod density – heavy fishing pressure

Community:

The MPA has assisted with the following community projects:

- “School” at Milibangalala
- Medical care at Milibangalala
- Turtle monitoring & beach clean ups
- Machangulo – support to fishermen
- Zitundo – aquaculture project.

Head Quarters & Milibangalala outpost

17/05 – Opening officially by Minister Sumbana, the Provincial Governor & Donor (Turing Foundation)

Management Plan content:

- Resource Management:
 - Protection and conservation of marine habitats that are representative of the sub-tropical coastal zone, thereby maintaining biodiversity and ecological functioning

- Protection and conservation of over-exploited, endangered and endemic marine species and their populations
- Managing external research and monitoring projects and programmes
- Business Management:
 - Creating an environment conducive to investment
 - Promoting and facilitating the involvement of Mozambicans in ecotourism opportunities
 - Improving and developing diverse and sustainable ecotourism opportunities
- Benefit Flow Management:
 - Ensuring equitable benefits to affected communities; and
 - Improving the understanding of marine ecosystems and their importance amongst all stakeholders of the PPMR, specifically local communities and resource users, for the purpose of conservation and ecotourism.
- Governance:
 - Establishing appropriate institutional arrangements and relationships with stakeholders;
 - Regulating access to and use of marine resources;
 - Establishing sustainable financing mechanisms;
 - Ensuring that PPMR staff is skilled and trained to undertake their responsibilities;
 - Developing and maintaining PPMR infrastructure and equipment; and
 - Ensuring appropriate information management.

Threats & Challenges:

- Fishing
- Scuba diving
- Use of vessels/launch site management
- Dolphin and whale watching
- Shark diving
- Community pressures
- Coastal development
- Institutional arrangements linked to MoUs
- Revenue Retention
- Expansion of Programme
- Cross border.....what?
- Inhaca / Portuguese Island ?

ECPTA:

Key Successes:

- All three MPAs have patrol boats
- MPA vehicle procured for Hluleka
- Two MPA officers have been appointed for Pondoland and Dwesa-Cwebe MPAs effective from August 2011
- Two MPA field rangers have been appointed for Hluleka MPA (recruitment from local community)
- R14m secured from DEA for Dwesa-Cwebe (fencing and infrastructure)
- EIA process for MPA boat house construction is in progress (consultant appointed).
- WESSA/ECPTA working arrangements on environmental awareness programs
- Amathole MPA management assigned to ECPTA
- New MPA management contract finalized
- Service provider appointed to undertake feasibility study on co-management/benefit sharing

Compliance and Enforcement

- Strategic deployment of camera traps to monitor and trace poaching activities.

- Great improvement on working arrangements with local police and courts.
- Considerable high fine sentences (up to R2500) were issued for illegal fishing and shellfish collection
- ECPTA/DEDEAT air and ground joint operations were undertaken (illegal fishing, hunting, sand mining etc) and J534 fines up to R3000 were issued.
- Working arrangements with SAPS water-wing for MPA operations have been initiated and a draft MOA has been developed.

Research & Monitoring:

Dwesa-Cwebe MPA

- Line-fish baseline study: Two years data analysis completed which showed very interesting results and highlighted the importance of the MPA
- Intertidal zone mapping: We contracted Dr Pete Fielding who completed an intertidal zone habitat mapping project.
- Poaching survey: Camera traps were used to monitor poaching on the reserve. The results were used to effectively launch anti-poaching operations

Pondoland MPA:

- Continued funding the ORI line-fish monitoring project
- Completed the Pondoland MPA management plan. **Currently waiting for DEA's inputs (6 months!!)**
- Initiated the "Wild Coast Living Laboratory" long term research initiative. An inception meeting was held at Kob Inn in September 2011. The research program will focus on biodiversity, people and global change
- Continued the process of developing estuary management plans for Mtentu, Msikaba and Mbashe estuaries (complications with engaging stakeholders is still significantly hampering progress)
- A digital presentation was presented at the World Marine Biodiversity Conference 2011
- A paper was submitted to Koedoe which is currently under review
- Penn State University students were hosted for a 10 week period at Dwesa-Cwebe and Mkambati

MPA awareness programmes

- Several school competitions were held in partnership with WCP, Municipalities, WESSA, SANBI and the Education Dept.
- Prizes for the competitions ranged from R2500 - R20 000.
- Marine week celebrations in partnership with DEA: O&C, schools and municipalities
- Coastal clean-up campaigns in partnership with WESSA and WCP
- Developed MPA Educational DVD

Key Challenges:

- High staff turn over
- Unresolved community issues (Dwesa-Cwebe, Hluleka)
- Illegal activities (fishing, shell collection, hunting)

Coastal Conservation Partnership:

Purpose: Integrates the ecological systems together with the social and economic systems within False Bay

Integrated Coastal Zone Management framework:

- Recognition of the diversity of our coast – biophysically, socially, economically and institutionally.
- Dynamic process – evolves through lessons learned from past experiences
- Understanding functioning of the coastal zone in its entirety
- Co-ordinate and regulate the various human activities that take place on the coast, in order to achieve coastal conservation and sustainable use.
- FALSE BAY as an iconic space
- 2 municipalities
- Major metropole
- Diverse habitat
- Important economically, socially and ecologically
- Numerous (conflicting?) uses & users
- Historically important...and controversial
- Emotive

Goals and objectives:

- Build sustained local capacity to improve the well-being of the marine socio-ecological system
- Support & strengthen existing local conservation organizations & initiatives
- Improve collective conservation efforts through strategic & collaborative action
- In conjunction with stakeholders, develop a shared vision for False Bay – use this to unite partners from different backgrounds
- False Bay Forum – representatives from stakeholder groups
- Long-term goal – development of a False Bay Management Plan



Fig 3: Coastal Conservation Partnership Process:

Where are we now?

- Developing co-operative governance
- Developing a partnership agreements around “statement of intent”
- Work within mandates but with overlap and co-ordination
- CoCT, SANParks, DEA, *Cape Nature*, *DAFF*?
- Introductory meetings with representatives of stakeholder groups have been held to explain process
- Fully participatory engagement series to follow thereafter

Individual stakeholder engagement series

- Governance institutions
- Research institutions and consultants
- Environmental interest NGOs
- Social interest NGOs
- Eco-tourism operators
- Commercial net fishers
- Commercial line fishers
- Rock lobster fishers
- Abalone fishers
- Recreational fishers
- Non-consumptive user groups

Management needs for iconic estuarine fishery species:

Dr Paul Cowley provided an evening presentation that was well attended by 135 persons that included MPA Forum attendees, Stillbay Fishing Club, Stillbay Conservancy, Riparian Owners Group.

- A presentation detailing the stock status, life cycle and assessing the management needs of important estuary dependant line fish was given.
- Dusky Kob, Spotted Grunter, White Steenbras and Leervis make use of Eastern Cape estuaries as a nursery area, while adults spawn at sea.
- Fish surveys and movement studies were undertaken using conventional tagging and detailed acoustic telemetry studies on key species.
- In the Great Fish, Kowie, Keurbooms & Sundays estuaries, catch retention rates were high: 92%, 87%, 88%, 67% and catches were dominated by undersized fish: 55%, 80%, 67%, with Dusky Kob - 62%, Spotted Grunter - 30%, White Steenbras - 100%
- Daily bag limits were rarely attained: Dusky Kob – 3.4%,
- Anglers had poor knowledge of fishery regulations
- Anglers were very rarely inspected by law enforcement officials
- There was a high effort in nursery areas
- Dusky kKob: are extremely dependent on estuaries, have low levels of connectivity between different estuaries, have partial residency in estuary (high use areas) and there is juvenile vulnerability to exploitation (high mortality)

Summary of findings:

- Fishing has had an impact on estuary dependant species
- There is high juvenile mortality in estuaries
- There is very little or no compliance - education & awareness are desperately needed
- Law enforcement is insufficient
- Bag limit of 1 is ineffective
- Estuaries support local fisheries

- Coastal MPAs can play an NB role
- Estuarine protection is vital
- **Off shore driving ban has led to increased fishing efforts in our estuaries!**



Fig 4 & 5: Over-exploitation examples from our past.

Climate Change in relation to South Africa's MPAs

- Just as for the need for MPAs, we need to communicate the reality of climate change
- We need better understanding of
 - What are the causes of climate change?
 - What are the expected manifestations?
 - What are quantitative estimates of these manifestations?
 - What impacts are likely on marine biodiversity?

The National Climate Change Response White Paper:

- Begins with acknowledging the existence of climate change due to:
 - Increases in global temperature
 - Rise in average sea level
 - Changes in rainfall patterns
 - Increased storminess
 - Longer & more intense droughts - certain areas

- Accepts the main conclusions of the IPCC
- This being the International Year of Climate Change – South Africa is hosting the Climate Change Conference from 28 November to 09 December in Durban, and the 2011 National Marine Week campaign has a strong focus on climate change.
- Role of the Oceans
 - Storage of CO₂ in deep water
 - Taking up the heat of the atmosphere
 - Warming could decrease the ability of the ocean to serve as a “sink” for carbon
 - There is a distribution of heat in the ocean through vertical and horizontal circulation patterns which could change
 -
 - There are changes taking place in ocean chemistry
 - Firstly the world’s oceans warm up and cool down much more slowly than the land, with average temperature increase of less than 0,1 degrees C so far
 - They distribute heat from the equator to temperate regions through warm currents
 - They store more than 50 times as much CO₂ as the atmosphere.
 - The oceans have absorbed 50% of the extra CO₂ produced by man over the last 100 years and are becoming more acid.
 - The oceans and atmosphere act as an integrated system, on various scale (examples, in storms)
- The earth will get warmer by another 2 degrees air temperature by 2100, and stormier
- And changing weather patterns caused by climate change are likely to result in certain areas, including large parts of Africa, experiencing more droughts.
- Sea level will rise by:
 - new estimates range from about 1 to 2m by 2100 making low-lying coastal areas vulnerable within the next few decades
 - If you look at work from 2008 the estimate for 2100 was 30-50cm
 - Storm-surge workshops in 2011 gave 1m
 - Recently indications show 2m by 2100 quite likely and 30cm by 2050
- Potential impacts on marine and estuarine biodiversity
- Distributional shifts in species ranges due to temperature on land and in the sea
- Distributional changes on higher trophic levels due to the movement of prey
- Loss of habitat, breeding sites, nesting grounds due to sea level rise
- Direct impacts on sedentary species like corals (bleaching due to temperature)
- Impacts due to ocean acidification

Gillnet fishery demographics, temporal and spatial variability in effort and bycatch, Langebaan Lagoon MPA:

Gillnet fishing:

Drift/gill nets are *controversial* because they capture everything larger than the net mesh size, and needlessly result in the mortality of non-targeted species. However, gillnetting is considered a *livelihood and traditional* practice in Langebaan, and has been ongoing for many years. In addition, previous studies have reported a relatively small amount of bycatch

Research questions:

- Who are the fishery participants?
- How does the effort change in time and space?
- Where do most of the catches come from?
- What is the size distribution of the target fish caught?
- What is the condition of these fish?

- What bycatch is being caught, and when?
- What factors better explain the variation in bycatch?
- Is the bycatch being caught sustainable?
- How can we mitigate or minimise bycatch?
- Develop an integrated approach to mitigate bycatch?

Demographic & Socio-Economic Profile:

	Gender	Gender	
Gender	94	6	
	Young (<60yrs)	Old (>60yrs)	
Age	31	69	
	All	Most	Some
Income	25	69	6
	Gender	Gender	
Bycatch	50	50	

Bycatch species composition

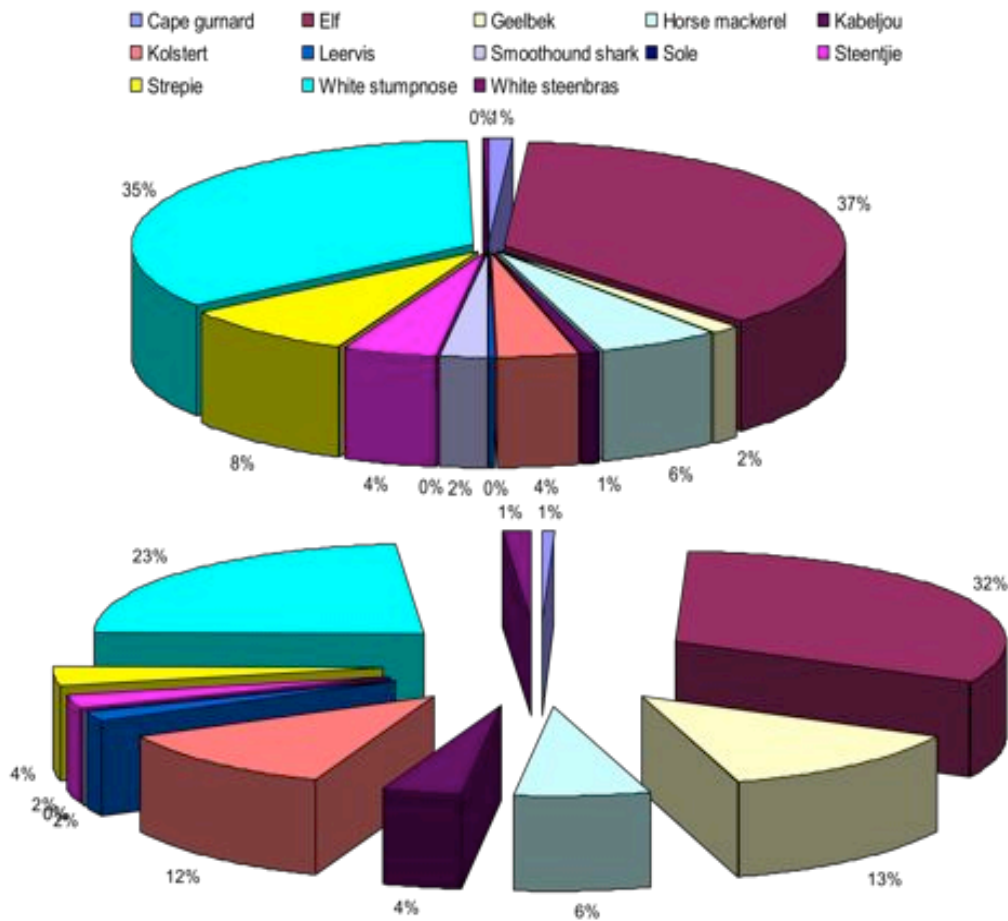


Fig 6: Bycatch species compositions from the Langebaan Gillnet Fishery:

Rare Species encountered:

Pinkie grunter (*Pomadasys olivaleum*)

Jutjaw (*Parascorpius typus*)

Summary

- The Fishery was declining, given that the average fisher participating was growing older and new licences weren't being issued, but the interim relief has substantially reduced the mean age.
- Over 70% of the fishermen derive most (>80%) their income through fishing
- Temporal effort distribution: Most of the fishing takes place in Spring and is lowest in Summer
- Spatial effort distribution: Most of the fishing takes place in Zone B
- Catch versus effort relations: Increased effort in Summer - Autumn in Zone B
- Harders length size distribution: Range is 20-36 cm. Fish are bigger in Zone B except in summer
- Condition factor of Harders: Poor in spring
- Bycatch: Most common species are elf and white stumpnose. The night effort increases bycatch presence

SANParks Monitoring:

- Need to ensure compliance with the Protected Areas Act
- Monitoring is an integral part of the Strategic Adaptive Management Approach adopted by SANParks

Awareness Program Development:

There has been a change in People & Conservation focus so that they deliver support regarding conservation issues for the GRNP.

Scientific data was lacking to use as motivation to ensure buy-in from park management. Roving Creel Surveys provided this information.

Findings considered the following:

The current situation:

- Poor perception of SANParks
- Low levels of accountability
- High retention rates
- Poor awareness
- Poor knowledge
- Low compliance

The desired situation:

- Good perception of SANParks
- Greater levels of accountability
- Lower retention rates
- Good awareness
- Good knowledge
- High compliance

To achieve this:

- Implemented ranger workshops
- Fish & fisheries identification
- A second round of training was held that focused on Working for the Coast teams.

Outcomes:

Good Awareness = Good Knowledge = Accountability = High Compliance

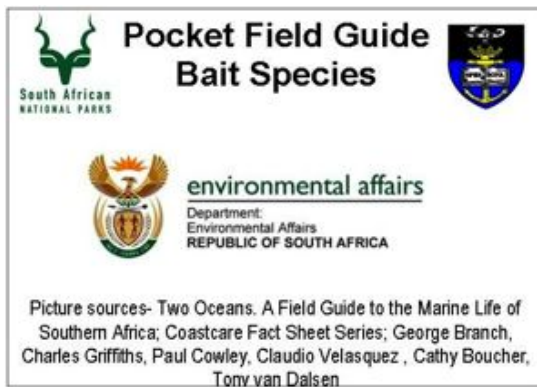


Fig 7: Pocket Field Guide Identification Series:

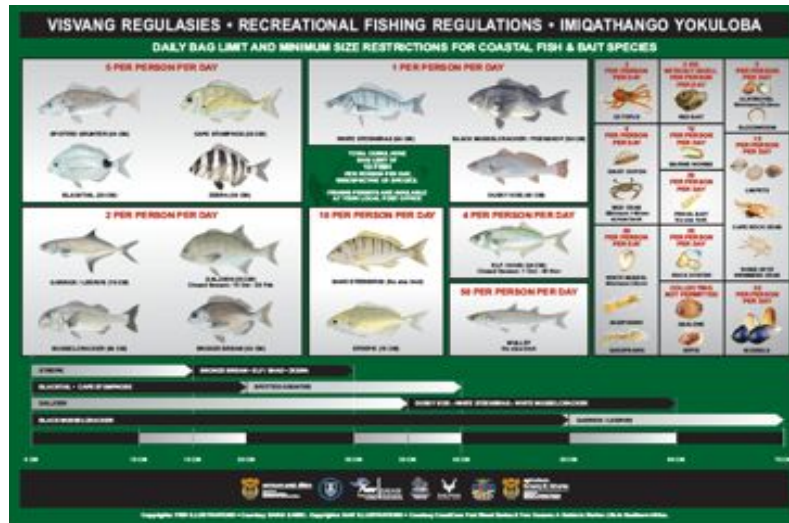


Fig 8: Recreational Fishing Regulation Signage

Change in shore angler Catch Per Unit Effort with distance from Marine Protected Areas:

Introduction:

- Currently there is a situation of unsustainable fishing
- Globally 70% of individual fish stocks are fully or over exploited (Cowley *et al.* 2002)
- Species targeted by more than one fishing sector are at higher risk of collapse
- Current management is not ensuring optimal and sustainable exploitation
- MPAs have been established to aid protection of stocks, protection of marine habitats, conservation of species, allow for research, education, tourism
- MPAs can overcome all aspects of overfishing (growth, recruitment, genetic, serial & ecosystem)
- Fishery yield will increase, in relation to the proximity of the MPA, IF there is a substantial spill-over of fish, or improved recruitment from spawner biomass in the MPA

Do MPAs make a difference?

- A temporal analysis of the catch and effort of the Rock and Surf Angling in areas adjacent to established MPAs was undertaken in the Western Cape to see if MPAs had had an influence on the adjacent fisheries.

- Fished MPAs were also looked at to see if they had any influence on catch and effort in adjacent sites
- Things to keep in mind: Information gathered from MPAs used many of the same anglers with superior skills, while the Roving Creel data was obtained from anglers of all skill levels
- Looking at the change in effort over time, there has been a significant decline in the number of anglers per km per day.
- This decline in effort could be related to the vehicle ban in Dec 2001.
- To put this into perspective, during 1995 it would have taken ONE angler 10 hours to catch 3 fish outside of an MPA, today the same angler would only be able to catch 2 fish in ten hours. In De Hoop MPA 15 fish can be caught in 10 hours.
- There has also been a change in the species contributing the most to catch since 1995. Today we find that mullet make up 20% of the catch followed by Kob with 11%. 16 years ago elf accounted for 71% of the catch followed by galjoen which only accounted for 6% of the catch.
- Migratory species are faring better than the resident species as their CPUE falls in the same range as those found in the MPA

Summary

- CPUE is significantly higher in the NO-TAKE MPA & areas adjacent to NO-TAKE MPA
- Temporal changes must be considered
- There has been a decline in effort in all cases
- CPUE has remained unchanged (Agulhas) or declined (Plett)
- Species CPUE – Migratory species are similar to the MPA but resident species are well below the CPUE of a No-Take MPA
- Effort within the MPA is equal to exploited sites adjacent to the MPA (Goukamma and Robberg Marine Reserve)
- CPUE within the MPA is similar or lower than the adjacent sites (Goukamma, Gerick's point higher than Groenvlei)

Are MPAs making a difference?

- Yes
- There has been a stabilising of CPUE in areas close to NO-TAKE MPAS
- SPILL OVER is occurring but this is limited by the dispersal range of species
- One cannot ignore that the decline in effort has had some influence
- Dispersal only takes place when the founding population is big enough
- Lack of angler compliance with regulations is also an issue
- It has been well documented that within the fishing industry there is a shift in the targeted species, so although overall CPUE may have stabilised, individual species CPUE should be considered.
- Spill over from MPAs differs according to the species migratory behaviour. For migratory species, we see small improvements in CPUE. However resident species don't show an increased CPUE. Resident species are susceptible to local over-exploitation with individuals being removed from the population as they disperse from the MPAs.
- Instead of stocks building in the exploited areas, the spill over is being fished out in the areas adjacent to the MPA and the population is not able to re-establish.

We cannot expect MPAs to do all the work:

- The establishment of MPAs should be 'no take' MPAS
- Fishers are NOT getting a better deal fishing in the MPA
- Change it to catch and release policy within MPAs

- Increase the number of MPAs - cover the dispersal range
- Improve the compliance of anglers (400km coast line, over 2 years, compliance officers only seen on 3 occasions)
- Have anglers complete a test to qualify for a licence
- Re-establish the roving creel monitoring programme
- Opportunities of making use Coast Care to continue with critical monitoring?
- Highlights the need for long-term data sets

How well are SA's marine fishes represented in protected areas?

- International policy and national legislation calls for representation in the selection of sites for MPAs
- In 1988 IUCN called upon nations to “Provide for the protection, restoration, wise use, understanding and enjoyment of the marine heritage of the world through the creation of a global, representative system of marine protected areas and through management in accordance with the principles of the World Conservation Strategy of human activities that use or affect the marine environment”.
- Extract from Protected Areas Act (#57 of 2003) 17. Purpose of protected areas: The purposes of the declaration of areas as protected areas are “to protect ecologically viable areas representative of South Africa’s biological diversity and its natural landscapes and seascapes in a system of protected areas”
- Practical problems: How do we accurately assess community- (or ecosystem-) structure in the sea? How do we measure representation?
- A test of representation: Is the species composition in South African MPAs similar to the species composition in the larger remaining areas? How similar?

Conclusions:

- Half of all fish species impacted by fishing are not protected
- Representation at community-level is less than 40%
- The best represented exploited communities in MPAs are temperate reefs of the southern Cape and Transkei
- Soft ground (estuaries and trawl ground), and pelagic fish communities are poorly represented
- Redundancy in representation for most species is low

National Spatial Biodiversity Assessment 2011: Estuaries Component:

Project Approach

- Define estuarine spatial extent
- Define habitat (vegetation types)
- Identifying key pressures & ecosystem services
- Undertake the National Estuarine Health Assessment
- Identify species of special concern (invasive alien species, harvested & threatened species)
- Climate change
- Mapping process
- Spatial extent of each estuary
- Identify estuarine types
- Identify and map pressures
- Flow modification (WSAM & expert opinion)
- Pollution (e.g. agriculture, WWTW, industrial, sediment)
- Fishing effort (fish and invertebrates)
- Habitat destruction (< 5 m MSL contour)

- Emerging pressures
 - Mariculture
 - Desalination
 - Invasive aliens

Priority estuaries for biodiversity conservation:

Estuarine habitat	Total area (ha) within the planning domain	Target (% of area)
Supratidal salt marsh	7051	20%
Intertidal salt marsh	4310	20%
Reeds and sedges	11 806	20%
Swamp forest	4843	All occurrences of > 5ha
Mangroves	2111	All occurrences of > 5ha
Sand/mud banks	4017	20%
Submerged macrophytes	1327	20%
Open water area	55 284	20%
Rocks	96	No target
Total estuarine area	90 844	20%

Invasive Alien Species

- Identified 11 invasive alien fish species and 7 extra-limital fish species (130 estuaries).
- Spreading invasive freshwater predatory fish act as a barrier to migratory species (e.g. eels and freshwater mullet) and compete with estuarine associated species in the river-estuarine interface.
- Identified 13 invasive alien plant species – from trees to water weeds.
- Eradication of the relatively newly established *Spartina alterniflora* (Great Brak) should not be delayed any further to ensure that this highly invasive species does not spread to other estuaries.
- Develop protocols and procedures for the early detection, risk assessment and management of invasive alien species.
- Possible work opportunities through the management of invasive species – Controlled small scale fisheries targeting invasives, Working for Wetlands

Key Findings:

- Provided a spatial delineation on a national scale – dots to area
- 39% of estuarine ecosystem types (81 % of area) are Critically Endangered
- More than 61% of ecosystem types (84 % of area) have Zero level of protection.
- National Estuary Biodiversity Plan identified 120 priority estuaries (40% of estuaries & 80% of area) for protection.
- The estuarine lakes are in crises! St Lucia represents ~55% area, but is in a very poor condition through the artificial separation from Mfolosi.
- Significant Pressures: habitat destruction, mouth manipulation, flow modification, fishing and pollution
- Inappropriate development in estuarine functional zone is forcing the need for artificial breaching of >16% of SA estuaries (~70% of area)
- Pollution pressure: All estuaries had some pollution in them
- Fishing pressure: Effort is higher in the cool temperate estuaries. Four estuaries have very high fishing pressure: Olifants, Berg, Bot and Kosi.

- Flow Water Requirements: Flow modification is causing type changes - In 2010 two estuaries (Kobonqaba in the Eastern Cape & Uilkraals in the Western Cape) closing for the first time ever.

Information Gaps:

- Hydrology for all estuaries in SA on a watershed scale
- Invertebrate data
- 3-D mapping - topographical and bathymetrical surveys
- Updated GIS spatial (mapping) of the habitat data for all estuaries of SA
- Value of estuaries (goods & services)
- Sediment data
- Stock status of estuarine dependant species
- Pollution data
- Land-use data
- Invasive species

Future Research Priorities:

- Climate Change
- Typing - refining the Whitfield classification
- Connectivity and regional importance
- Taxonomic surveys of plants and invertebrates
- Population Genetics - plants, invertebrates and fish to ensure correct protection measures
- Recruitment studies of fish and invertebrates
- Invasive species as a barrier to connectivity

Recommendations:

- Restore the health of St Lucia and other estuarine lake systems
- Eradicate alien invasive *Spartina alterniflora* before it takes hold
- Increase protection levels through the authorisation and implementation the National Estuary Biodiversity Plan
- Identify and implement of Ecological Water Requirements over next five years
- Finalise National Estuary Management Protocol to ensure cooperative governance between lead authorities and roll out development of Estuary Management Plans under the ICM Act.
- Promulgate a sound legal definition for estuaries – floodplains & temporarily closed estuaries largely unprotected at this stage.
- Recognise and protect Estuarine Functional Zone - ICM Act/ Water Act
- Finalise and roll out National Estuary Monitoring Programme
- Develop a National Coastal Biodiversity...what?

MARINE SCIENCE AND CONSERVATION 2020:

Conrad Sparks from the Cape Town University of Technology presented on marine conservation in Higher Education.

- There are changes on the way with a new NQF that will be different to the existing system and which brings some challenges.
- The current Marine Programmes at CPUT look at Oceanography and Fisheries Resource Management through a National Diploma, BTech, MTech and DTech. This training was initially aimed at oceanographic technicians and was later expanded to become relevant to fishing companies and observer programmes
- There was a need to review current offerings which have now become outdated as a result of changes in the HEQF, the marine sector, science & technology, data management, the regulatory

framework, mariculture and as a result of marine challenges (management, societal, development, environment)

- For this reason a Diploma: Marine Science has been developed.
- The course aims to provide students with knowledge and competencies in marine science across a number of disciplines, to develop the students' ability to solve problems, both within a marine science context and to work independently, to contribute to scientific and technological development in SA, to effectively contribute to the management of the marine environment.
- This will provide for increased career opportunities across various marine sectors, conservation and environmental management, marine science / technology, fisheries and aquaculture production, tourism industry, non-governmental organizations, consulting, various government departments, research, academia – technicians / support and the private sector.
- Entrance Requirements: Level 4 (Adequate Achievement, 50-59%): English, Life Sciences, Mathematics and Physical Sciences.

The Proposed Programme Structure:

FIRST YEAR:	
SEMESTER 1 Marine Science I Conservation Ecology I Communication Skills I Biomathematics I Computer Skills I	SEMESTER 2 Marine Biology I Conservation Ecology II Marine Physics I Marine Chemistry I Project Management I
SECOND YEAR:	
SEMESTER 1 Coastal Management I Marine Law I Marine Aquaculture I Marine Technology Marine Science II	SEMESTER 2 Computer Skills II Coastal Management II Marine Biology II Marine Resource Management Marine Pollution
THIRD YEAR	
SEMESTER 1 Conservation Ecology III Marine Biology III Business Principles	SEMESTER 2 Marine Science Industry Practice
Electives: (Choice of 2, one at level III) Marine Aquaculture II Marine Law II Coastal Management III Marine Science III	

Where to from here?

- Need for more collaboration with institutions (Research)
- Implementation of Marine Science Diploma

The Human Dimensions of MPAs:

This forms part of a 3-year research project funded by WWF, Green Trust and National Research Fund.

Overall aim: to develop a conceptual framework and a SET of GUIDELINES for understanding and integrating the Human Dimensions into MPA planning and management in relation to small-scale fisheries governance in South Africa

- Convention on Biodiversity: MPA Programme of Work key goals: *equity and benefit-sharing*
- Case studies Sites: Langebaan MPA, TMNP MPA, Struisbaai, Dwesa-Cwebe, Hluleka

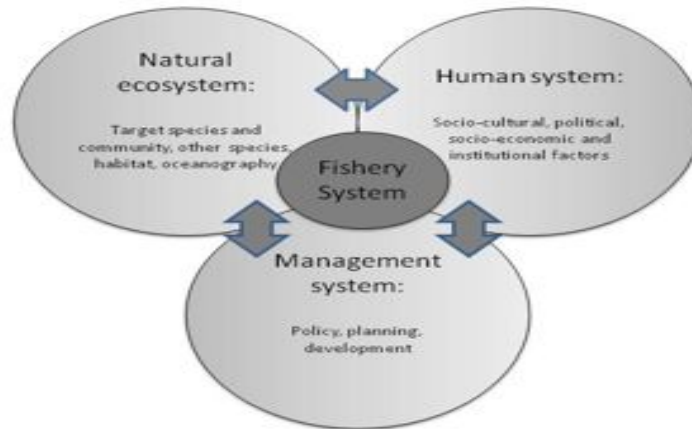


Fig 9: Complexity of Human Dimensions:

Key questions

- What are the social dimensions of MPAs in the South African context?
- If an MPA is not considered legitimate by local stakeholders, how can legitimacy be achieved?
- How to integrate MPAs in the broader fisheries and coastal management context?

Progress: Langebaan MPA:

- Progress made towards co-management due to a set of 'enabling factors' including 1) well organised local fishing community with strong leadership 2) Involvement of SANParks marine scientist in research with the community has helped to facilitate communication and develop trust
- SANParks has adopted a flexible approach to zonation, allowing net fishers to fish in restricted zone during peak holiday times

Progress: TMNP MPA

- Legitimacy - dependent on a sense of participation among resource users. Crucially, it is not the number of meetings held but the *nature* of the interaction (open, respectful, involvement from earliest stages).
- Power - participatory interaction between social researchers, MPA managers, resource users and scientists is shaped to a significant degree by the relations of power among

those interacting, as well as by broader structures of power that encompass participatory interaction

Progress: Dwesa - Cwebe

- Conservation authorities have no data on socio-economic issues or the 'human dimensions' upon which they can draw on in decision-making
- No staff capacity to manage the human dimensions of the MPA
- No co-ordination or integration with DAFF with respect to the allocation of permits to adjacent small scale fishing communities
- Widespread catching of fish and harvesting of a range of inter-tidal resources both in and outside of the reserve by residents who claim customary rights to these resources

Preliminary findings emerging:

- Socio-economic data about fishing communities living in or adjacent to MPAs is very limited and often not used in MPA decision-making
- There is little integration between MPA management and DAFF Small Scale Fisheries management
- Lack of alignment between MPA policy, Constitution and Small Scale Fisheries draft policy – legal implications
- Outputs – Practical Guidelines for integrating human dimensions in MPA design, planning and implementation

Many problems, one solution: raising awareness for catch-and-release angling:

What is catch-and-release?

- For catch-and-release fishing to succeed, released fish must not only swim away, but be able to resume normal physiological functions (swim, eat, grow and reproduce).
- Both initial mortality and delayed mortality must be considered:
 - Initial mortality typically occurs when a fish is hooked in the gills or gullet and results in severe bleeding.
 - Even if a fish is not initially wounded, delayed mortality can occur due to the cumulative effects of numerous sub-lethal stressors.

Why catch and release?



Bag and size limits = legal requirement

Science:

- Catch & Release has increased during the past 30 years and should be used in angling competitions and as a fisheries conservation tool
- A recent review of over 200 scientific studies indicates that survival of released fish was 82% (lowest was 25%!) This impacts vulnerable species and bottom fish through barotrauma
- Catch & Release is not straight-forward because of a number of factors and practices influencing successful catch & release.

Catch & Release Optimization Techniques:

- Bait Type
- Hook Type
- Degree of exhaustion of fish
- Time spent out of water
- Landing technique
- Handling
- Method of release

Catch & Release Angling Clinic's:

Aim of the CARA clinic is to share knowledge on:

- How, when and where to fish to improve your success rates
- Biology and behaviour of main species
- Encourage catch and release angling and the conservation of our estuaries.

Conclusion:

- Estuarine fish are vulnerable (resident) and sustainability of fisheries is questionable
- Non-compliance and lack of law enforcement are major problems
- Effective conservation is needed
- It is clear that key species are threatened and sustainability is therefore also threatened
- The problem of non-compliance needs to be addressed through public awareness and education programs
- Improved law enforcement is essential
- Current legislation is ineffective and area management options must be considered. (In other words effective conservation areas are needed)

Netting the Abalone Poacher ECI Cape Town:

ECI Unit:

- 4 staff members (3/ September)
- 2007/2008 Equipment & recruitment
- Fully operational in 2009
- Operate in all SANParks PAs (MPAs & coastal parks)
- Operate throughout SA
- Specialist in:
 - marine living resources anti-poaching
 - Surveillance
 - Observations

- Covert operations

Current Threats:

- Corrupt officials
- Aggressive poachers & use of fire power
- Threat on ECI life
- Well organized large groups of poachers
- Poachers:
 - Are flexible & unpredictable
 - Have high fitness & strength
 - Have excellent knowledge of area & escape routes
 - Have planned dumping & evasive tactics
 - Have lookouts/ OP's
 - Have organized communications (cell phones, radios)
 - Have large numbers (separated carriers and divers)
 - Use military type tactics (anti-tracking)
 - Have improved diving & voice discipline (concealed underwater lights)
 - Use expanded hours of operation (camping & shift work)

Counter-poaching measures:

- Small dedicated team – less risk of leaks (TRUST)
- Highly motivated & passionate
- Strict discipline & endurance
- Well trained & constantly adapting & improving
- Equipment – night vision, thermal, long distance surveillance equipment (cameras, spotting scopes),
- Tactical wear, camping gear & safety equipment
- Capture nets (something new & successful, 2009)
- Work in all weather conditions
- Good inter-departmental and inter-agency relationships

Foot Patrols/ Observation post:

- Collection of intelligence (spoor / activities)
- Follow up & verify information
- Early detection of activity & prevention

Vehicle & Vessel patrols:

- Pro-active policing & prevention
- Reactive – quick response
- Collection of intelligence (suspect vehicles and vessels)

Challenges:

- Get 4 additional posts
- Vessel with engines
- Training of SP
- Environmental courts
- MLRA amendments

Awareness Needs:

A facilitated discussion about the importance of awareness-raising to promote MPAs was led by Peter Chadwick, Kerry Sink and Thomas Peschak.

The floor identified the following as key points regarding awareness raising:

- Better understanding of policy
- Better understanding of laws & regulations
- The need for feedback from DEA & DAFF, to MPA level, of changes occurring and decisions being made
- Setting guidelines for angling
- The use of booklets and print media versus electronic media
- The options of working with tackle shops to get key messages out regarding fishing regulations etc.
- Using consumer pressure to change angling practices
- Kerry Sink explained the project concept of “Fish For Ever”. More discussion would be needed and it was suggested that Kerry work with the following to refine the concept. Paul Cowley, Bruce Mann, Meag McCord, Janine Basson, Pierre De Villiers, Kyle Smith, Scotty Kyle.
- The need to integrate with the education system
- There is a strong need for common understanding of MPAs among organisations and personnel. All organisations need to say the same thing “Keep it Simple”
- The NBA must be used as the baseline document for decision making
- We need to integrate MPAs within the context of outcome 10 (accountability and opportunities)
- Get awareness tools from Paul Cowley and Kyle Smith
- Use scientific data as a motivation.
- How do we address low accountability by users?
- Streamline training into HR processes
- Develop a suite of good science stories
- Develop Citizen Science Projects
- Engage with SASSI consumers around responsible fishing guidelines

How Can Imagery Help MPAs?

- Identify and showcase flagship species
- Highlight the risks “showing dead stuff”
- Showcase the bigger picture and constraints
- Sequences in time imagery
- Healthy sound of the oceans versus silence
- Image/video/sound mixes

MPA Task Team:

In follow up to the 2010 MPA Forum, it was again noted that it was highly advisable for the development of a National MPA Task Team with the following criteria.

- Must be scientifically based with good spatial planning support
- Play a co-ordination role
- Lead stakeholder engagement
- Set national priorities
- Set branding and awareness priorities
- Integrate legislation
- Ensure consistent reporting
- Ensuring MPA-allocated funding is ring-fenced

- Setting targets for communication at CEO's Protected Area Forum
- Developing best-practice models
- MLRA Review
- Research & monitoring prioritization
- Setting targets for the review of management plans and setting site-specific objectives

Priority Actions:

Setting priorities for action in 2012

In setting priority actions for 2012 it is important to ensure alignment within the MPA community in a manner that will be consistent. It will be necessary to mobilize & bring communities on board in a way that we all strive for **opening & maintaining dialogues. Awareness-raising is therefore critical to this successful roll-out.**

- Finalizing a DEA & DAFF MoU regarding MPAs
- Setting up the MPA Advisory Group
- Review of MPAs – core objectives (include social dimensions), MPA boundaries, zonation and current regulations – are they achieving objectives? – take action to ensure they meet objectives, biodiversity aspects including ecosystem representation, threatened species
- Compliance improvement across all sectors
- Resolving current MPAs where conflict issues occur
- Securing budgets for priority monitoring
- **Priority Area** (new & expansion)
 - Prince Edward Islands
 - Offshore
 - Namaqualand
 - Algoa Bay
- **Priority Area** (re-zonation)
 - Bettys Bay
 - Goukamma
 - Robberg
 - Aliwal Shoal
- Invite DEA Protected Area staff to the 2012 MPA Forum
- Invite the Minister to the 2012 MPA Forum
- Ensuring that the correct messaging pertaining to MPAs is given at the CEO Protected Area Forum
- Reviewing current DEA/Conservation agency MoU's to ensure:-
 - Greater accountability
 - Funds allocated to MPAs are ring-fenced for this purpose and are NOT used for terrestrial protected area management
 - Ensuring that all vacant posts are filled timeously and by MPA qualified and competent individuals
 - Ensuring that all MPA equipment is properly maintained
 - Setting consequences for not fulfilling the agreement
- NBA and OMPA information needs to be readily available in an easy to understand manner for decision makers to use to defend MPAs against conflicting marine actions eg. mining in sensitive marine habitats.
- Ensuring tighter integration of "Working for the Coast" into MPA projects such as monitoring
- Embedding MPA related training into organizational HR policy
- Using Outcome 10 opportunities to embed MPA priorities into those of government
- Set an implementation plan for 10 OMPA sites
- Consider the consequences of the off-road driving ban on increased fishing effort within estuaries

- Develop a co-ordinated awareness raising plan for MPAs that makes use of iconic imagery as a central tool and raises awareness amongst MPA personnel regarding the role and importance of MPAs
- Develop a national prioritization for integrated and consistent monitoring for MPAs

Date & Venue of 2012 MPA Forum:

It was proposed that the 2012 MPA Forum be held in the Wild Coast area and possibly at Morgan’s Bay and an alternative site could be at Tsitsikamma MPA. It was requested that the Forum be held in mid November 2012. The suggested theme for the 2012 Forum is “Protected Species”

Next Forum Actions:

- Set reporting template for presentations
- Summary docs for each presentation (Exec Summary – max 2 pager)
- Contact details list available to participants
- One printed agenda placed on the wall

Closure:

Peter Chadwick closed the Forum on behalf of DEA who had unfortunately had to leave early due to senior management meetings. Alan Boyd was wished well in his new position in DEA-Oceans & Coast and was thanked for his support for MPAs over the years. Thanks were given to the Stillbay organizing team who ensured the suitability of the venue, catering and availability of the bar. Jean Du Plessis and Cape Nature were thanked for their support in setting up the 2011 MPA Forum



Fig 3: Exposed Tidal flats east of Stillbay MPA

Appendix 1: MPA MANAGEMENT FORUM 2011: AGENDA:

Stillbay Marine Protected Area: 6 - 9 November 2011

Sunday 6th November

Arrival at Stillbay MPA	Evening Braai starting 18h00
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Monday 7th November

Time	Topic
07h00 – 08h00	Breakfast
08h00 – 09h30	DEA: Welcome and Purpose of the meeting (Dr Razeena Omar) Special Welcome to Xola Mfeke Director: Coastal and Biodiversity Conservation
	House rules: (Peter Chadwick)
	Apologies (Peter Chadwick)
	Acceptance of previous minutes & Matters Arising (Peter Chadwick)
09h30 – 09h50	Stillbay MPA (Jean du Plessis)
09h50 – 10h20	National Biodiversity Assessment: Marine (Dr Kerry Sink)
10h20 – 10h40	Tea/Coffee
10h40 – 12h30	Organizational Feedback (20 min presentation by representative from each conservation organisation) (Facilitated by Peter Chadwick) Listing: Key Success Key Challenge Key opportunity CapeNature (Rhett Hiseman) CAPE Estuaires Programme (Pierre De Villiers) SANParks KwaZulu Natal Wildlife (Thokozane Mkhize) iSimangaliso MPAs (Pete Hartley) Offshore MPA Programme (Dr Kerry Sink)
12h30 – 13h30	Lunch
13h30 – 15h00	Continued from morning session... DEA - Oceans & Coasts (Xola Mfeke and Dr Alan Boyd) Namibian MPA (Stanley Ndara) Mozambique Transfrontier MPA (Miguel Goncalves) Eastern Cape Parks Board (ZWAI KOSTAULI) The Coastal Conservation Partnership (Dr Eleanor Yeld) Honda Marine (Clinton Lambert)
15h00 – 15h30	Tea/Coffee
15h30 – 16h30	Discussion of days feedback session (Facilitated by Peter Chadwick)
18h00 – 19h15	Open session for Stillbay and Breede River Fishing Clubs and Stillbay Community Management needs for iconic estuarine fishery species (Paul Cowley) The Science of MPAs (Dr Colin Attwood) Jewels of the Sea: A Decade of Conservation Photography and Marine Reserves (Thomas P Peschak)
	Evening Braai and Bar

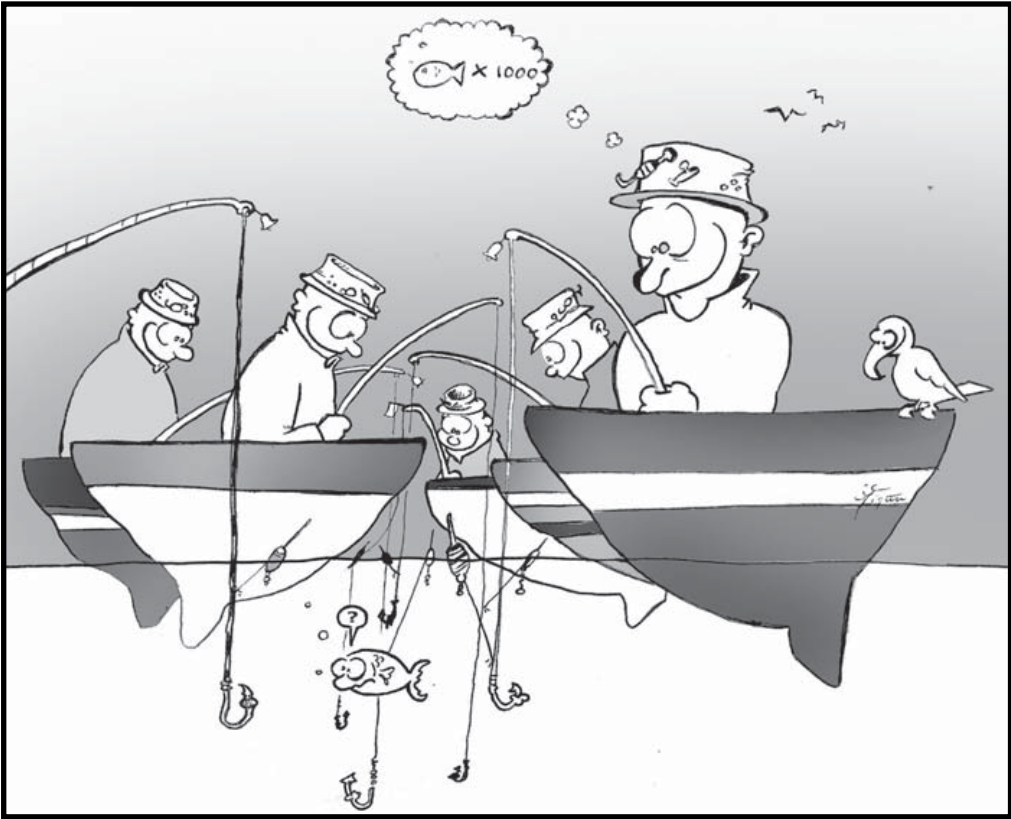
Tuesday 8th November

Time	
07h00 – 08h00	Breakfast
	MPA Science and Climate Change (Chair Dr Kerry Sink)
08h00 – 08h20	Climate Change in relations to South African MPAs (Dr Alan Boyd)
08h20 – 08h40	The Role of MPAs in adaptation to climate change (Dr Kerry Sink)
08h40 – 09h00	Gillnet fishery demographics, bycatch composition, temporal and spatial variability, Langebaan Lagoon marine protected area. (Mbulelo Dopolo)
09h00 – 09h20	Underwater monitoring of Stillbay MPA (Lauren De Vos)
09h20 – 09h40	MPAs, SASSI, Inshore Bycatch, Small Scale Fishers and Market Transformation (John Duncan)
09h40 – 10h00	Roving creel findings – Garden Route (Kyle Smith)
10h00 – 10h30	Tea/Coffee
	MPAs into the Future (Chair Dr Serge Raemaekers)
10h30 – 10h50	Change in Angler CPUE with distance from MPAs (Jess Sterley – Anchor Environmental)
10h50 – 11h20	Representation of Fishes in MPAs – (Prof Colin Attwood)
11h20 – 11h40	NBA Estuary Systems (Lara Van Niekerk)
11h40 - 12h00	The proposed Diploma: Marine Science (to be introduced in 2013) (Conrad Sparks)
12h00 – 12h20	The Human Dimension of MPAs and the need for a Social Assessment of MPAs in South Africa (Dr Serge Raemaekers)
13h00 – 14h00	Lunch
14h00 – 18h00	Field Outings: Netting of the Stillbay Estuary with Steve Lamberth Honda Demonstration of products Stillbay Eels MPAE Group to meet Representatives from WWF, SANBI, DEA, CapeNature, ECPTA, EKZMW, SANParks, iSimangaliso
19h00	Dinner
	Discussion Groups to be determined: Coastal Conservation Project: Dr Eleanor Yeld-Hutchings Capacity Support Programmes: Louis Willemse

Wednesday 9th November

Time	Topic
07h00 – 08h00	Breakfast
	Awareness and Communications
08h00 – 08h20	Many Problems – One Solution Raising awareness for catch-and-release angling (Paul Cowley)
08h20 – 09h30	Awareness needs: Discussion (Panel: Kerry Sink, Thomas Peschak & Peter Chadwick)
09h30 – 10h00	Key Messages & Targets for 2012
10h00 – 10h30	TEA
	Policy, Legislation, Compliance & Operational Management (Mzwabantu. Kostauli)
10h30 – 10h50	Feedback from MPA Expansion meeting: Kerry Sink
10h50 – 11h20	ECI activities SANParks (Carl Nortier.)
11h20 – 12h20	Summary & Wrap Up (Setting priorities for action in 2012) (Peter Chadwick) 2012 MPA Forum: Setting the next meeting: Date & Venue

12h20 – 12h30	Closure (Peter Chadwick)
	Lunch
	Tea/Coffee
19h00	Closing Dinner



Appendix 2: Minutes of the MPA Expansion Co-ordination Group



Marine Protected Area Expansion Co-ordination Group: Supporting the implementation of the National Protected Area Expansion Strategy (NPAES)

Meeting Report: 8 November 2011, MPA forum, Still Bay

Compiled by Kerry Sink, SANBI

Participants

Xola Mkefe, Alan Boyd, Toufiek Samaai, Stephen Kirkman, DEA, Oceans & Coasts
Kerry Sink, SANBI
Peter Chadwick, WWF
Rob Tarr, DAFF
Ané Oosthuizen, SAN Parks
Peter Hartley, iSimangaliso Wetland Park Authority
Vuyani Mapiya, ECPT
Tamsyn Livingstone, EKZNW
Pierre de Villiers, Cape Nature

Introduction

Kerry Sink welcomed everyone and provided a brief overview of the goals and role of this group. i.e. to support co-ordinated implementation of the marine aspects of South Africa's National Protected Area Expansion Strategy. Rob Tarr from DAFF was given a special welcome as this is the first time DAFF has attended a meeting of this group. Input has previously been provided by DAFF staff remotely.

Apologies – Jean Harris (EKZNW) (due to change in date)

Agency Updates

DEA (Alan Boyd)

MPA proclamation – Amathole MPA has now been proclaimed.

Departmental priorities – Prince Edward Island, Addo (Algoa Bay) MPA, Namaqualand MPA, increasing no-take protection (Betty's Bay & Robberg), developing a network of Offshore-MPAs. Zonation – no new progress.

Policy – Draft Oceans Policy is under development and will include MPAs. This policy will not be too detailed but should set key principles for MPAs. The MLRA revisions are currently on hold with the focus on the new policy.

Staff changes – Alan Boyd has moved across as a Director in the Research directorate in DEA Oceans & Coasts. Xola Mkefe is now Director Coastal and Biodiversity Conservation. Ashleigh Naidoo is Chief Director in the new Oceans Conservation directorate.

SANBI (Kerry Sink)

Review of broad MPAE spatial priorities – see expansion priorities below

National Biodiversity Assessment (NBA) key points on MPA expansion

– PEI remains a key priority but was not included in the NBA. Offshore MPAs & an MPA in Namaqualand are the key reported priorities. Unprotected habitats in the Natal ecoregion will also need to be considered for inclusion in new MPAs. The OMPA focus areas will be reported to DEA Senior Management Services on 24 November.

Targets – the target review is complete and available (Porter *et al.* 2011). It is a comprehensive report that reviews international targets, approaches to target setting and makes recommendations for South Africa. This report is a useful resource for planners & implementers and provides a strong defence of the existing 20% generic marine target used in South Africa. It was suggested that this work be taken forward at the next planning forum.

WWF (Peter Chadwick)

Staff & program changes – Dr Deon Nel is back and is now Director of Biodiversity at WWF. A revised strategy that aims to support DEA is in place.

Priorities - WWF supports DEA priorities with a focus on supporting expansion and re-zonation including Prince Edward Island, Namaqualand, Algoa Bay, Kogelberg & Offshore MPAs. DAFF was interested in securing protection at Kogelberg and this collaborative work needs to be picked up. WWF is also supporting broader planning for a network of MPAs in the Southern Ocean including initiatives aimed at a possible high-seas MPA that lies between the Crozet Islands and the Prince Edward Islands. This has also been supported by CCAMLR.

iSimangaliso Wetland Park Authority (Peter Hartley)

The IMP has now been approved and the park extension to the Mapelane lighthouse is reflected within the new IMP as well as the new zonation scheme developed by the iSimangaliso Wetland Park Authority. Regulations under the MLRA need to be developed. Bottom fishing will no longer be permitted in the Park but DAFF input will be sought & further legal advice in this regard. There is one commercial fisher at present.

Ezemvelo KZN Wildlife (Tamsyn Livingstone)

EKZNW hosted a stakeholder workshop in July 2011 & presented the 19 focal areas for MPA establishment to stakeholders, held discussions to prioritise which proposals should go forward and it was decided that the following proposed MPAs could be taken forward; iSimangaliso offshore extension, Tugela Banks, Aliwal Shoal re-zonation & expansion, Ballito & Umhloti. Stakeholders are driving the coastal MPAs as well as the re-zonation of Aliwal Shoal. The workshop notes and resolutions as well as the document outlining the steps needed to take the proposed MPAs forward (developed with DEA and discussed at the workshop) have been distributed to the participants. The technical report will be finalised in the near future (before Feb 2011) together with a short report which will be made available and sent out with any SeaPLAN related layers.

SAN Parks (Dr Ané Oosthuizen)

Priorities – Addo & Namaqualand (see below). The process for Addo is very advanced & feedback from DAFF is now required. SANParks, DEA & DAFF need to meet to resolve outstanding issues and take this forward.

Eastern Cape Parks & Tourism Agency (Vuyani Mapiya)

Proclamations – Amathole MPA has been proclaimed and a management plan needs to be completed within 6 months.

Planning – the Wild Coast Project is undertaking further work.

Issues – the Dwesa-Cwebe situation needs to be resolved. (Alan explained that the catch and release competition was declined this year because of new evidence, further discussed under priority actions below).

DAFF & ECPTA need to engage around compliance arrangements.

Cape Nature (Pierre de Villiers)

Priorities – rezoning of Goukamma, Betty's Bay and Robberg are priorities. Updating of management plans is also underway.

DAFF (Rob Tarr)

Department feedback indicates that the lack of a signed MoU dealing with MPAs is a stumbling block in supporting co-ordinated MPA expansion and management. An agreed process is needed to allow for formal co-operation between departments on MPA matters.

Priority actions with responsible agencies and timelines to support MPAAE in the longer term

DEA-DAFF collaboration on MPAs – challenges in collaboration between DEA and DAFF have been experienced with regard to MPA expansion, fisheries compliance in MPAs and around MPA budgets. It was reported that although there is a signed MoA between the two departments, MPAs are not dealt with in this agreement. The MPAAE co-ordination group as well as the broader forum participants requested a formal agreement detailing key roles and responsibilities with regards to MPAs (including compliance) and accommodating formal co-operation in MPA matters between the two departments enabling formal collaboration in resolving these challenges.

MPA Advisory group – it was agreed that we need to formalise a MPA advisory group or task team to provide co-ordinated science-based and experienced-based advice to DEA. Xola & Toufiek to take this concept forward to SMS. Kerry to give Xola the background work done in this regard. Previous discussions outlined the need for a group that could build on the work done by the previous marine reserves task team. It was envisaged that this group could provide science-based advice (biodiversity & social) and MPA operational management expertise to support MPA policy, strategy and the resolution of current issues around MPAs. The task team needs to include ecological and social scientists and operational management expertise and should be representative. It was anticipated that this group could advise on MPA principles, target setting, policy, best practice, resolving current and long-outstanding issues, strategy development and priority setting. The group should be DEA-SANBI led & should include DAFF.

Objectives & MPA Review - Review of the current MPA network is a priority but it was agreed that this cannot proceed until agreed site-specific detailed objectives are documented for every MPA. Determination of the process and plan to achieve this is proposed as the first task of the MPA Advisory group. Once specific objectives (including biodiversity, fisheries management & other objectives) for every MPA are documented, then monitoring needs to be revisited and a review or plan for review can be compiled.

Protected Areas CEO's forum – it was suggested that both the MPAAE co-ordination group and the MPA forum should communicate feedback to this broader forum. Feedback should include reporting on agreed priorities from both groups as well as the National Biodiversity Priorities for Protected Areas. This should aim to highlight MPA priorities (scientific and operational), help raise the profile of MPAs in the terrestrially dominated agencies and broader forum and catalyse support to achieve agreed priority actions – Kerry & Xola to discuss by Feb 2012.

Expansion priorities

Prince Edward Islands MPA – this is a key DEA priority. Alan presented an outline of the next steps in taking this forward. DEA is leading this process but WWF & SANBI will support. Changes were made in the proposed way forward with a recommendation not to undertake any new analyses. It was agreed that the initial proposal for proclamation and zonation be kept. The proposed steps towards final implementation will be presented at a Senior Management Service meeting on 24 Nov 2011.

Offshore MPAs – This is an emerging DEA priority. A joint SANBI & DEA presentation was requested at Senior Management Service meeting on 24 Nov 2011. SANBI (Kerry Sink) accepted this invitation and will join DEA in presenting the project background and focus areas on 24 Nov 2011.

Addo – DAFF feedback is required, and Rob Tarr will enquire on progress and respond to Ane. A joint DEA, SANP & DAFF meeting is proposed to support implementation. Xola will lead on this and the meeting is proposed to take place by year end with the aim of gazetting for comment by end Feb 2012

Namaqualand – This is a DEA priority for 2012. SANParks, WWF, DEA, Cape Nature & SANBI – investigate mining lease (Ané Oosthuizen, SANParks). There is recognition that the onshore and offshore components are now split and that the inshore component should proceed first. It was agreed that this would lie within the originally proposed area between the Groen and Spoeg rivers and estuaries. Where possible it was requested that the estuary systems be considered for inclusion into the MPA. There is an Integrated Ecosystems Program in DEA Research with new systematic work planned along west coast (Toufiek Samaai, DEA).

iSimangaliso Wetland Park – EKZNW, iSWPA & SANBI to discuss the offshore extension with report-back to be provided by May 2012. An Offshore MPA stakeholders' workshop should be considered for KZN. Report-back is needed by May 2011 at planning forum.

Rezoning priorities

Betty's Bay, Goukamma & Robberg – Alan will collate evidence for Xola for Robberg & Betty's Bay by February. Goukamma – Pierre & Peter to collate and submit to Toufiek & Alan by end Jan. Rezoning of all 3 is a priority.

Resolving current issues Dwesa Cwebe – Community involvement in research is recommended. Xola would appreciate a coordinated scientific recommendation drawing together previous work – DEA (Toufiek & consultants), DAFF (Sven & Steve) & SANBI (Kerry) – by Feb 2012. Conflict resolution – small scale fishery policy first needs to be resolved. Hangberg a priority after this. (Note – Tsitsikamma was not discussed).

Management Plans

Many management plans are now outdated. DEA sign off on Pondoland updated draft management plan is needed prior to proceeding with resolving issues in other MPAs eg. Dwesa. Xola and Alan to take this forward. Amathole needs a management plan within 6 months. Pondoland plan is currently most advanced and a suitable template with good social elements. CapeNature is planning to revise management plans in the near future.

Other

The 2012 Planning forum will be at Skukuza in the Kruger National Park 22-25 May 2012. It was proposed that the target setting work is revisited at the planning forum.

Estuaries & islands to be integrated with marine in next NPAES. (Estuaries should have a stand-alone component but should be included in all other components too).

Because many Oceans & Coasts staff had to depart prior to the MPA forum final session, the key issues of the MPA forum were also discussed. The following key priority actions were identified from the forum:

- Establish an MPA Advisory Group
- Document specific detailed biodiversity, fisheries management & other objectives for each MPA – link this with management planning & use these objectives to review South Africa's MPA network
- Enable formal co-operation between DEA & DAFF on MPA matters (including planning, management, compliance and monitoring)
- A national awareness campaign for MPAs is a priority. This must communicate the role and value of South Africa's MPAs and showcase their diversity and benefits.
- Monitoring should be revisited after specific objectives for every MPA have been documented.
- Contract tightening between DEA & Agencies is an urgent priority. DEA to hold a meeting with all agencies.
- An implementation plan for Offshore MPAs is needed to plan the way forward. DEA, DAFF & SANBI to collaborate in achieving this.
- Presentations on protected species requested for 2012.

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