

Human Dimensions of Stony Point Penguin Colony Management

Ragaller, S. and Jarre, A.

MaRe and the Biological Sciences Department, University of Cape Town

Abstract

This paper took research results in Betty's Bay around the Stony Point penguin colony as a case for developing thoughts around adaptive management with a social-ecological perspective. Both biophysical and socio-cultural factors make up the unique circumstance of the reserve. While making this important distinction the aim of this paper was precisely not to fall into the conceptual trap of reinforcing existing categories. In framing this research the concept of novel ecosystems is employed as an underlying philosophical approach. Ethnographic methods were central here and formed the basis on which a questionnaire was rolled out. Contrary to expectations there was widespread support for an income generating reserve as well as ideas to shape the possible interpretative centre.

1. Introduction

1.1 Human Wildlife Conflict

The Betty's Bay Stony Point penguin colony is an important colony as it is the only one of six showing a measurable population increase along the South African west coast. African penguins have been in decline for decades across the coast, and were classified as endangered by the IUCN in 2010, requiring the State to undertake management measures to reverse the population trend through the African Penguin Biodiversity Management Plan (DEA 2013).

The fast and continued growth of the colony at Stony Point is both encouraging and confusing to witness. Why this colony is growing when all others are in decline is an important question and one that interests many different people: from penguin conservation professionals, penguin biologists, researchers modelling population pressures as contribution to the development of conservation management strategies, to the small pelagic fishing industry that relies on the same prey (sardine and anchovy) as do penguins for their respective survival.

Stony Point presents another aspect shared with only one other colony in South Africa, Boulders Beach: both are mainland colonies. All other colonies are based on islands. Being on the mainland in peri-urban areas with human neighbours means that these penguins are exposed to a different life than those on islands further away from *direct* human contact. Mainland penguins, like their island based counterparts, are subject to human impacts on the environment, which range from shipping traffic, to prey competition with fishers, to pollution (to name a few). Yet, mainland penguins, such as the ones at Stony Point are in daily contact with human visitors such as tourists as well as neighbouring residents. As the colony has expanded penguins have moved in between the houses situated above the rocky shore. Some

residents are not happy with this as the noise and guano increase, along with vegetation degradation make for an unpleasant experience. While some residents embrace this as a sort of privilege, others are not too impressed. Users of the recreational ski boat slipway neighbouring the colony ignore the penguins at best, but additional potential for conflict arises out of the planned upgrading of the launching facilities.

This brings to the fore acutely what is commonly referred to as “human-wildlife conflict”, more broadly a public-conservation conflict through the impacts of human activity on penguins and the natural world people share with them.

While the penguins are of course an important indicator species for science and fisheries management they also have many other roles (Boersma 2008). Penguins are an important part of tourism, education and community in Betty’s Bay. In this sense there is a need to be adaptive in the management of the reserve and expand the notion of ecosystems in conservation to include the social.

2. Change

Human existence is now impacting on the world at a planetary level and making changes to ecosystems that are probably irreversible (Collie *et al* 2004). These changes are what have come to define the Anthropocene (Steffen *et al* 2011). Of course there are also (closely entangled with anthropogenic induced changes) changes traditionally referred to as “natural” - fluctuations within and between states, both spatial and temporal.

To better grasp some of the changes taking place it is important to remember that:

Seabird populations integrate spatial and temporal variability in their physical environment and in prey, so they are often considered reasonable proxies of ecosystem status [...] Penguin populations therefore potentially reflect both natural variability and directional change in oceanographic production within several hundred kilometres of their colonies, including changes induced by human activities. (Trathan *et al* 2014, 2)

In the case of Stony Point changes have also been induced by penguins settling there in the 1980s more than a century after the first houses were built. While this is by no means a change in the ecosystem it is a relatively unusual situation in which penguins have encroached on an existing human settlement. The growth of the colony, especially since the early 2000s, in the context of global African penguin population collapse, challenges some of the assumptions about negative effects of human contact with wildlife.

A novel ecosystems approach (Hobbs, Higgs & Hall 2013) looks at change and intervention in an ecosystem critically. The term “ecosystem” is being used in a broad sense to include humans. Therefore it is better understood as systems of ecological processes and actions, in which humans as social beings are equal actors. Furthermore, the spatial scale at which ecosystem is used in biological ecology is far greater than the extent of Stony Point and the foraging range of penguins there. Albeit at a far smaller scale, the social-ecological

relationships around Stony Point that produce a coherent set of interactions, which lie conceptually parallel to those of classic ecosystem thinking.

Conservation is not seen as “restoration-to-past-states” by default. While better understanding the past can be useful in forging a path into the future it should not be used to create carbon copies of the past itself. It is important to evaluate the feasibility of restoration and whether changes that have taken place are detrimental to the functioning and services of the ecosystem. Especially when accepting that human actions are not detrimental by default. Changes, through introduced species, removed vegetation or nutrient load for example, create new opportunities and relationships for established components of a system. In many cases new relationships between existing and introduced species are established. At times these create situations that are better than before, in the “natural” state. In this sense change, *a priori* is neutral. The negative connotation assigned to change comes through human fear of uncertainty. The possibility of a change that potentially challenges peoples’ use of natural resources is why people have been manipulating the landscape they live in for millennia. Defining what is ‘best’ for the ecosystem is really a social process. There is no single objective truth as to what makes a healthy, strong, good, productive ecosystem. The greatest physical impacts people control, such as mining, are relatively small compared to the vast scale of things happening all around us: bird migrations, upwelling ocean currents, tectonic plate movement. Nonetheless, the impact people have on the world is vast. The actions leading to those impacts are manageable and it is at that point where people make decisions about how to interact with the natural world.

This begs the question: what is natural and what should we be conserving or restoring? In the case of Stony Point, penguins arrived after humans and are thriving in the midst of a residential area and feeding in a part of the ocean that has not traditionally been identified to be “best” for penguins. While Stony Point is not necessarily an example of a novel ecosystem, there are a number of surprising aspects to the area that present challenges to traditional conservation approaches. These point to the way in which the management of human activities is approached in social-ecological systems, and specifically their relationship to indicator species, such as penguins.

The research conducted here takes humans as an entry point in understanding the management of Stony Point. Penguins and humans are closely enmeshed at Stony Point and form a large part of life in Betty’s Bay. This proximity and pervasiveness to daily life in Betty’s Bay means that the relationship between residents, tourists and penguins needs to be managed carefully.

3. Methods

3.1 Ethnography

To understand this long history of issues around Stony Point and present it as succinctly as above has required careful navigation of social, political and institutional structures. In doing so the researcher has used an ethnographic approach that relies on participant observation as the central fieldwork tool. Ethnography is a methodological approach developed in Social Anthropology. It is used to develop nuanced understandings of cultural, social and political settings by engaging with peoples' everyday lives. The aim is also to engage with a group of people over extended periods to build relationships that facilitate the kind of conversations and observations usually reserved for an 'insider' of that group. Fieldwork was carried out over 5 weeks (5 periods from 2013-2014) in total. Core informants are visited on every fieldtrip, which means that recent developments as well as old topics are revisited and become part of the conversations. The latter point is crucial as people retell the same stories differently simply because our ability to recall events is imperfect and subjective. Simply recalling past events jogs the memory and depending on the context different parts of the event come into conversation.

An understanding of daily life is built by participating in the lives of people with whom the ethnographer is working. For researchers unfamiliar with the discipline this approach can easily be dismissed as collecting anecdotes and therefore being of no use in generating hard facts. In ethnography, 'collecting anecdotes' carries great weight in the process of understanding people. Stories, gossip and rumours reveal a lot about networks of people, the gatekeepers and power relations. These narratives are often not so much about the hard facts they contain but rather how they are told, shared and changed depending on who is speaking. The strength of an ethnographic approach lies in the ability to take apart and piece together complex and nuanced understandings of the world that help us make sense of what is going on.

An important component to the rapport that has been built with residents rests in the trust between researcher and people that in turn hinges on respecting the privacy and anonymity of informants. Feeding back the results of the questionnaire is also part of maintaining rapport by allowing participants to see their contribution to the knowledge being produced.

In the end the crucial components are the ethnographers' critical thinking ability in drawing together fieldwork experiences while remembering that what people say; what people do; and what people say they do, are usually three completely different things.

3.2 Questionnaire

From the outset the ethnographic material described above was also intended to inform and develop a questionnaire that would provide quantifiable data that speaks to the ethnographic material. Development of the questionnaire began in mid-2013, about a year after fieldwork

began and with a better understanding of the issues at hand. More specifically the questionnaire would not have been as revealing if the ethnographic data had not been there to shape the questions.

Three approaches were taken in rolling out the questionnaire, which took place from January 2014: door to door; through the Rate Payers Association and distributing business cards. In using three different approaches the aim was to gain as many participants in as short a time as possible. The three approaches also resonate with different kinds of residents. Going from door to door ensured a good geographic cross-section of residents. It was however a time intensive approach.

The Rate Payers Association has a large database of residents with regular communication. The aim was to send the questionnaire out through their database. Due to a misunderstanding the questionnaire was posted on the Rate Payers website (see Figure 1) instead of being e-mailed to the people in the database. While there were responses from a few people, the initiative required from people is seemingly too high and although many might see the questionnaire, few will click through to complete it.

The screenshot shows the website for the Betty's Bay Ratepayers' Association (BBRA / BBBV). The header includes the logo, the name 'BBRA / BBBV', and the full name 'Betty's Bay Ratepayers' Association / Bettysbaaise Belastingbetalersvereniging'. A search bar is located in the top right. A navigation menu contains 'Home', 'Publications', 'Contact Us', 'Gallery', and 'Links'. A notice states: 'Notice: Buzz for Aug and BotSoc News for July are now available under Publications.' The main content area features a large image of a person on a beach. Below the image is the title 'Stony Point Questionnaire' and a sub-header 'We received the following letter from Sven Ragaller at UCT. -Ed.' The text of the letter reads: 'Dear Residents, I am conducting research around Stony Point and am looking for your contribution by filling out this short questionnaire. The research focuses on the history of the penguins in Betty's Bay and your experiences as a resident. The aim is to inform future management and operation of the reserve. The 17 questions are either multiple-choice or require short answers (a few sentences or point form) and should take 10-15 minutes at the very most. It will be very interesting to see what the results are and I will be sharing these with you as soon as possible. Click [here](#) to follow the link to the questionnaire. Kind regards, Sven Ragaller'. A 'Details' section at the bottom left indicates 'Written by Super User' and 'Published: 26 February 2014'. On the right side, there is an 'Events' section for 'BotSoc Talk' on Saturday 16th August, and a 'Login Form' with fields for 'User Name', 'Password', and a 'Remember Me' checkbox, along with a 'Log in' button.

Figure 1: Screen capture of the Rate Payer's Association website with an introduction and hyperlink to the questionnaire: www.bettysbay.info/80-category-nature/123-stony-point-questionnaire (January - July 2014)

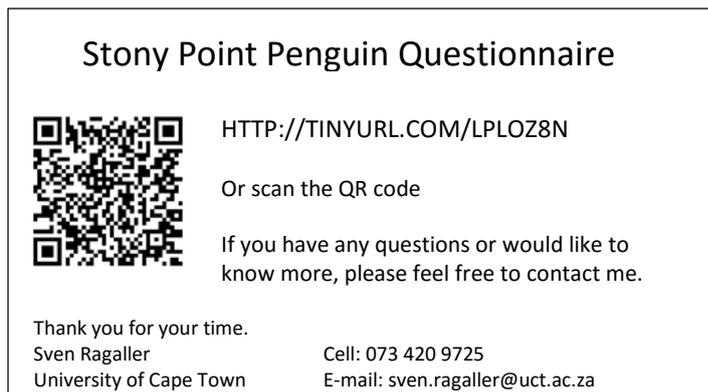


Figure 2: Business card questionnaire

The third approach, using business cards (see Figure 2), is also linked to the online questionnaire. The business cards had a very short introduction to the questionnaire along with the URL and a QR code. These were displayed with card holders at businesses throughout Betty's Bay. When customers are paying at the till of a convenience shop or at the hair dresser these cards are easily visible. While this approach reached many people there was limited response. Similarly to the Rate Payers website, the business cards required initiative from the person to type the link into a browser or scan the QR code with their smartphone. While these are both easy and quick options, especially considering that the questionnaire was optimised for mobile devices too, people rarely took the initiative. One must also keep in mind that, online approaches are not as accessible for the older generation of residents who form a large part of Betty's Bay.

4. Results

4.1 General Results

Looking in from the outside the issues, particularly around fencing, seem contradictory: Residents appreciate penguins but do not want them in their gardens. Residents also do not want the fence. The fence keeps the penguins out yet also keeps people from accessing the shore directly from their property. In short it seems unreasonable to demand both access to the beach through the colony and control of the penguins. With the recent listing of African penguins on the IUCN list of endangered species, residents footing in the debate around access has slipped further away. Yet the fence is not the only issue that Stony Point residents see as problematic. The maintenance of the fence has, up until recently, been poor. Penguins have been able to get through or around the fence, which is an issue that has been largely resolved innovative fence design. The state of disrepair of the facilities, while gradually improving over the last year, is extensive (toilets not always working, general building maintenance and cleaning are lacking). Entrance fee and visitor management has been problematic. Mismanagement of gate fees has also cropped up on a number of occasions in conversation with residents.

All these issues have culminated over the years into moments that have cast the reserve in a bad light. One very recent example is the negative media coverage in a national newspaper, which pointed to mismanagement. Unfortunately the story was framed in sensationalist terms, which meant that not only was an opportunity missed to promote the reserve but instead there was a negative story in the public sphere. This is not helping the problems faced by this endangered species nor those of the Stony Point residents.

4.2 Building Relationships Through Ethnography

To illustrate the usefulness of the ethnographic approach, the fencing issue outlined above is helpful. Initial conversations with residents at Stony Point were confusing as a number of people were clearly against the fence. Other residents from Betty's Bay also spoke about the fence being an issue for residents of Stony Point and it quickly became apparent that the fence was one of the central issues. However, every person engaged about the fence said they did not want the fence. At the same time they also did not want the penguins in their gardens. It became apparent that there was a 30 year history of events stretching back to the 1980s that related to the fence and penguins. Some of the researchers' early field notes illustrate how long the penguins in general have been a part of their lives. For residents, Stony Point (formerly also Hangklip Beach Estate) has far more meaning than for those people that only come to Betty's Bay a few times a year to their holiday house. For one lady in particular, growing up in what was then Hangklip Beach Estate meant there were very few other houses or people around. Paging through a family photo album she pointed to photos, discoloured from age that show how rural the area was. Parts of the area were still farm land at the time. "My mother used to take me down to the rock pools here" she said, pointing across the penguin colony. Decades later she recalls how her and a few others were excited to see the first penguins at Stony Point. "Where did they come from and why are they here, we asked each other". When the colony was attacked by a leopard "a lot of people said we needed to do something to help them [the penguins]". Penguins became or perhaps always were a normal part of life, whereas now they occupy a contested space. Residents, conservation managers and penguins all debate the access and protection of this space.

People had been talking about this issue for a long time and very quickly fell into a position where they felt they had to defend themselves. The best way to defend their position on the fencing issue was not to reason through the issue but simply state their wishes. The researcher was initially perceived as a potential threat because he introduced himself as doing research around the reserve. Not being aware of the sensitivity of the issue meant that he had inadvertently positioned himself poorly. In hindsight there was no way around this initial hurdle. From the outset the ethnographic approach had been chosen and, as with previous research, the persistent building of relationships with residents eventually lead to a far better understanding of what was going on. Once people saw that the research was there to improve the management of the reserve around exactly the kinds of problems they were describing, the conversations with people changed.

4.3 Questionnaire

The data collected to date represent the responses of 45 participants during February-July 2014. The graphs and questionnaire referred to in the text can be found in Appendix 1 and 2 respectively. From the questionnaire it has become evident that many residents of Betty's Bay (Q2 - 50%) visit the colony regularly. 61% had been at least once in past 12 months (Q1). Based on the questionnaire and previous fieldwork this is estimated to be around twice a year on average. 95% see it as necessary to sustain the penguin population (Q4). Half (Q5 - 56%) of the respondents correctly identified the penguin population to be on the increase and are aware that there are other penguin colonies along the South African coast (Q3 - 85%). When asked about the Cormorant population at Stony Point (Q6), 57% were unsure whether there was an increase in numbers, 10% indicated a decrease while 33% correctly indicated an increase.

The respondents are comprised of 90% (Q - 11) residents. It is interesting to note that 89% (Q - 17) of respondents were also in favour of seeing more visitors to Stony Point and 100% (Q - 12) see the upgrading of visitor facilities as valuable. The vast majority of respondents reported no impact on day-to-day life from penguins or visitors. In Q7, 86% indicated penguins do not have an impact on their daily life while 14% said they do. Of these 14% in Q7, almost all said there was no seasonality (Q8). Similarly for Q9 84% indicated no impact on daily life by visitors. Q10 reflects the tourist season peak as 60% (of the 16% in Q9) indicated a seasonal impact. This reflects conversations with questionnaire respondents as well as those that took place during the ethnographic phase of fieldwork. It does not mean that Stony Point has a very small effect on peoples' lives. The questionnaire has been spread out over BB to eliminate any potential geographic bias. One known geographic bias is proximity to the colony and main access road. Whoever lives along these points will be exposed to more human and/or penguin 'effects' than for example people living a road or two further away due to the way traffic moves or how far the smell of guano reaches, itself depending on wind speed and direction. In other words the effects are not widespread but acute in some instances.

21% (Q 12a) of respondents answered Question 12 with a caveat. In most cases this was one of apprehension that relates back to the long standing history of inconsistent management at Stony Point. One of the respondents summarised this concern, which came up in conversation with residents consistently, when writing "it [Stony Point] can be valuable if managed correctly". Some of the more specific comments regarding this are outlined below. 80% (Q15) of respondents had concerns about the way in which the interpretative centre would be developed.

The already half-built visitor facilities would be something residents support (Q13). An interpretative centre is something people would visit regularly and most (Q14) have specific ideas of what could make up the facility, such as: movies, photos and coverage on the whaling station¹. Some want something modern as opposed to the usual, static, diorama and

¹ There was, surprisingly, a suggestion for live penguins to touch!

text displays found in museums. Some want ecological, cultural and historical context (the latter being requested repeatedly). Some want a state of the art educational complex, others relaxation and recreational space while some want an art gallery as opposed to a curio/gift shop. Importantly, there is general support and many ideas that can be drawn on.

Q15 allowed people to express any specific issues they have with Stony Point. There were three comments about the gate staff's (which exclude the two CapeNature staff who work inside the reserve) unprofessional conduct. Another three comments pointed to the need for more boardwalk supervision as visitors regularly do not adhere to the rules. Three more separate fees for tourists and locals or at least reduced fees for locals. One suggested the opening hours should be extended. There were two comments around the necessity for wildlife control (with regards to dassies and leopard). The rest are around tourist management while one comments on the biosphere and fragmentation of Kogelberg, Stony Point and MPA. This was the only one that made a comment on the wider conservation context (such as Kogelberg and the MPA). Nine said they had no problem with the management. One person mentions that Hermanus receives a disproportionate amount of attention from the municipality due to its high profile as a regional tourism centre, when other towns such as Betty's Bay would be equally good or better in some instances.

Discussion

As results from some of the opening questions show, there is a surprisingly high awareness around penguins and Stony Point. It is a topic that has a certain familiarity among residents. This complements the ethnographic data too, which has revealed a long-standing support for the natural world among residents. The origin of this can be linked back to the Botanical Society and thus Harold Porter Gardens. Older residents, in recounting the formative years of Betty's Bay and the Botanical Society have pointed out Stony Point, while old minutes of meetings refer to the penguins on a number of occasions. It is mostly this older generation of retired residents who make up the nature conservation societies. Younger, working residents view Stony Point positively too, however, the colony's importance lies more in its recreational and touristic value for this latter group. This generational difference is small yet important, which is best illustrated through another set of the questionnaire responses.

One restaurant owner expressed support of tourism growth overtly when she stated that despite "more cars and traffic, it [Stony Point] could bring more income for Betty's and is good for our [the town's] businesses". Another business owner operating along Clarence Drive (the regional road running through Betty's Bay) is also happy to see more tourism development at Stony Point as "that means more customers for me". While growing their businesses is at the forefront of concerns, this younger generation also expressed support for the conservation of penguins. This is what shows a common interest and benefit in growing both tourism and conservation efforts together. This younger generation links the success of the colony to its income generating ability whereas the older generation focuses on specifically and directly, protecting and preserving, the penguins. The Stony Point penguin

committee is an example of this as it was founded by and run almost entirely by retired residents of Betty's Bay. The long-time chair of the committee often commented on how important it is to drive the conservation of penguins "because if we [residents] don't do it, who will?"

The generational difference is not mutually exclusive and rather influences *how* certain management decisions are made as opposed to *what* the contents of these management decisions are. As a specific example of this difference the interpretative centre is a case in point. There is a large range of comments from respondents on how to shape the centre: historic material, videos and live displays are amongst them. Finding the right balance will be an important point in securing residents' acceptance and support of Stony Point.

To gain residents' support requires effective management that addresses at least the major short comings to date and that have been identified by residents in the questionnaire. Q15 was useful in eliciting these issues and most of the comments can be categorised in relationship to effective management. People want to see consistency in the daily running of the reserve. There is also general confusion around how Stony Point fits into the wider conservation efforts of the Overstrand region. Some people assumed that Stony Point was run by Cape Nature although this has only been the case since July 2014. As Q12a shows people have so far not been asked what they would like to see at Stony Point. Nonetheless, Q14 shows that people have specific ideas around how to shape visitor facilities at Stony Point.

Effective and consistent management of the reserve is challenging in a changing world. It requires adaptive management that is responsive to the changes at hand. The idea is to pick up on the fact that "patterns emerge or self-organise from the local interactions between the components in the system" (Roux and Foxcroft 2011: 1). By identifying these patterns the management process can form actions, strategies or policies that are put into practice. This implementation and the effects that follow from it need to be recorded. This information allows the management process to return to the first step of identifying patterns. The aim being to revisit the assumptions and facts to improve the management and outcomes of what is practiced in a place such as Stony Point for example.

The notion of adaptive management is not new to contexts such as the ones at Stony Point that have overt social and ecological problems intertwined. With so many stakeholders becoming part of the conservation management purview, a social-ecological understanding of a place, an ecosystem or a fishery is crucial. The "social-ecological health" (Ommer 2007: 4) approach has its roots in the new ecology literature in which nature and society are not seen as independent entities but rather as co-producing systems that can be both resilient and sustainable. The notion of resilience is traced back to the idea of "constancy", which Holling (1973) first introduced. What this enabled was an appreciation of ecological systems as resilient through long-term changes. This also brings me back to residents' concerns of consistency with management of Stony Point. Conceptually "constancy", as opposed to the "absence of change" needs to be examined carefully in the context of what we know to be rapidly changing surroundings (physical, social, political).

Novel ecosystems are therefore useful concepts to help hash out an adaptive management approach that aims to produce a consistently good set of management practices. An important point in novel ecosystems (Hobbs, Higgs & Hall 2013) is that change is not necessarily bad. Assessment of the natural world in particular requires finding a recent 'baseline' for flora and fauna and to try to reproduce this. Especially in recently urbanised or urbanising areas this means taking humans out of the picture. Taking a past 'picture' of the system at hand as a reference for the future is not actually rigorous as there is little room for fundamental change to be accounted for. The past should be used as an indicator of the potential future but not as a desired outcome for the future.

This opens the door for a completely new start in which the environment is reengineered to peoples' needs. That would of course miss the point and fall into the trap of denying history as an integral part of what makes people do what they do. Instead 'naturally' occurring synergies should be identified and supported. Where natural processes are producing good results these should be protected through intervention, if necessary. In this sense the past can help point the direction while at the same time we should not ignore more recent developments between components in a given system that are supporting it. The establishment of penguins at Stony Point is an example of such change. They have transformed the landscape and colonised an area very successfully in an era of global population decline. As sentinels of wider ecosystem health penguins are important and need to be supported here. Some of the issues experienced recently at Stony Point show that poor relationships with people are expensive to sustain. This refers specifically to the bad media coverage of Stony Point, which shows how the cost, not necessarily financial, is high when poorly managed relationships are made public. Not only does it lower the perception people have of Stony Point but also Cape Nature broadly. Enabling good relationships is central to the management plan's role and needs to be spelled out therein, with concrete steps and milestones to be achieved and explicit goals to be achieved.

It has been surprising to see so much support for Stony Point. One would expect people to take the 'not in my back yard' stance with regard to upgrading the visitor facilities yet instead, the researcher was met with a willingness to develop and support. Along with this the vast majority of respondents left their contact details. This is very encouraging as it indicates a willingness to talk about and become involved in Stony Point.

From this it is clear that a general approach needs to be developed by getting various stakeholders together and assessing how common their interests are. Situations in which commonality among stakeholders is relatively high; or where there is a good and established relationship at hand, would benefit from techniques of Multi Criteria Decision Analysis, MCDA (Goodwin & Wright 2004).

Situations or groups with little in common and that share very different views can benefit from an approach underpinned by the notion of "generative events" (Whatmore 2009: 2). Here one uses disagreements or mistrust as an opportunity to build common ground. It is a very open ended process but one that can generate mutual respect and understanding for the situation.

Results from this study indicate that a few brainstorming meetings taking a generative event approach can be used to relatively quickly move into applying MCDA methodology to decide on priorities and actions for the interpretive centre as a project. These meetings are open to Betty's Bay residents and neighbouring towns such as Rooi Els and Kleinmond, as well as weekend/holiday home owners from Stellenbosch and Cape Town. All input into this process is valuable, regardless of participants' 'residential status'. This wide spectrum of input is challenging for the decision making process and is where MCDA is so useful. MCDA generates a more robust process that yields a stronger outcome. However, the emphasis here remains on the interpretative centre for the mid-term.

A long term view of the human dimension of Stony Point management, however, will take more time to develop. One must bear in mind that this study has provided a good overview of the situation in Betty's Bay from the perspective of residents and holiday home owners. Some residents also work at Stony Point fulfilling gate fees, access control and administration. These relatively low-skill duties at the reserve have been the responsibility of municipal employees who were moved to Betty's Bay when a pine plantation was closed down a number of years ago. Relocations of these kinds are never easy and in the context of South African apartheid history add a complexity that requires careful consideration. Government houses were provided not too far from Stony Point in an area called Mooi Uitsig. While the ethnographic data from this research has made this history evident, there has not been enough time to develop a questionnaire and comprehensive recommendations that take these residents into consideration. We envisage that a series of generative events (*sensu* Whatmore 2009) can help build a robust understanding and process for the management of Stony Point with a long-term perspective. This approach in itself could be reflected in milestones in the management plan under development.

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Author's Contributions

SMR (University of Cape Town), project proposal, fieldwork, analysis, writing.
AJ (University of Cape Town) general supervision, contribution to concept, writing, editing, provided funding.

List of Appendices

Appendix 1 – Questionnaire results based on the 45 responses received. See text for details.

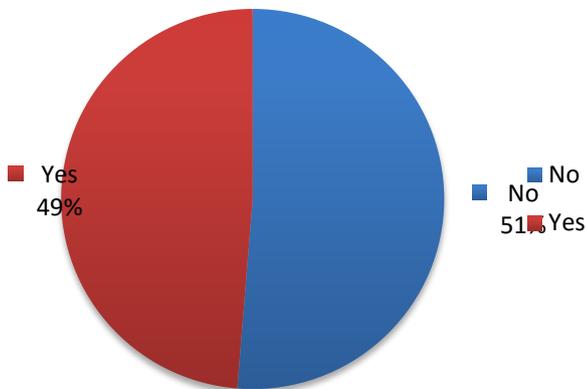
Appendix 2 – Details of the questionnaire.

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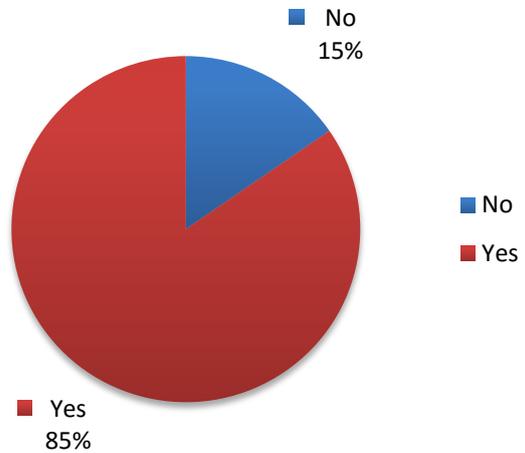
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Appendix 1

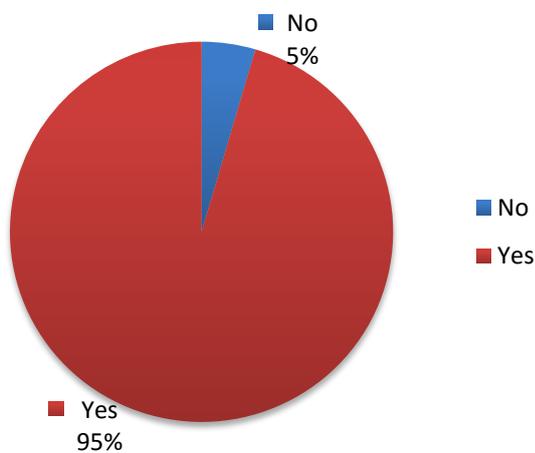
2. Do you visit the penguin colony regularly?



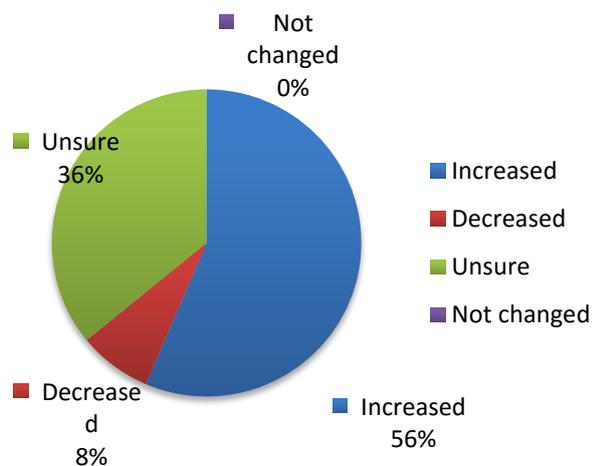
3. Are you aware of any other penguin colonies along the South African coast?



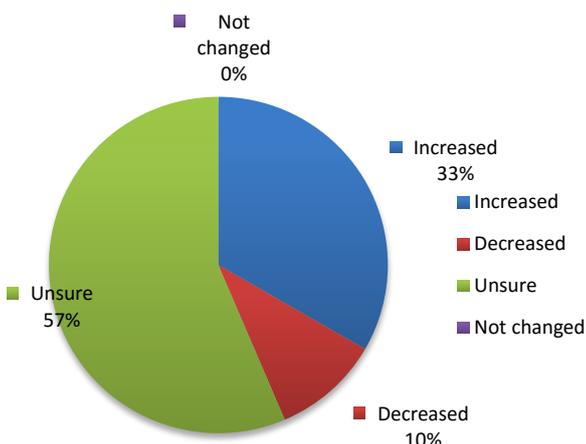
4. Do you see it as necessary to sustain the penguin colony?



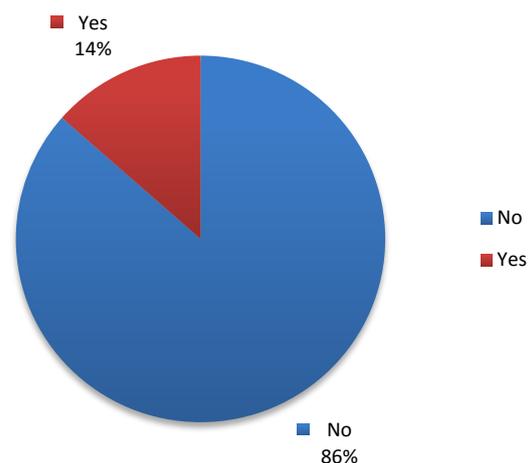
5. Over the last 3 years have the number of penguins?



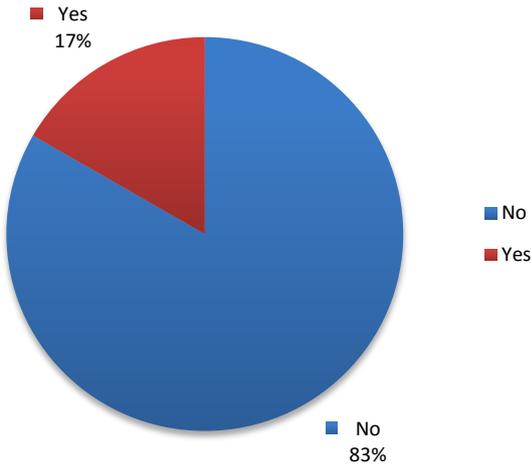
6. Over the last 3 years have the number of cormorants?



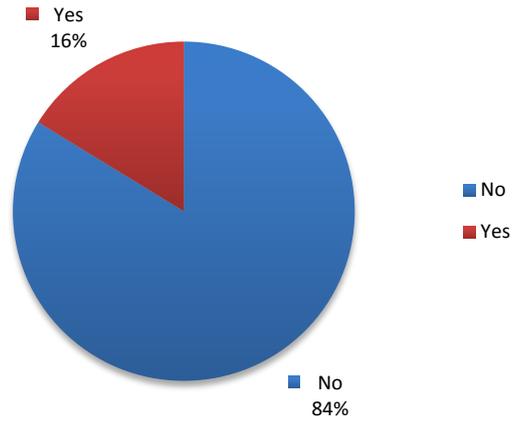
7. Do the penguins have an impact on your daily life? Is there anything in particular that comes to mind such as noise or smell?



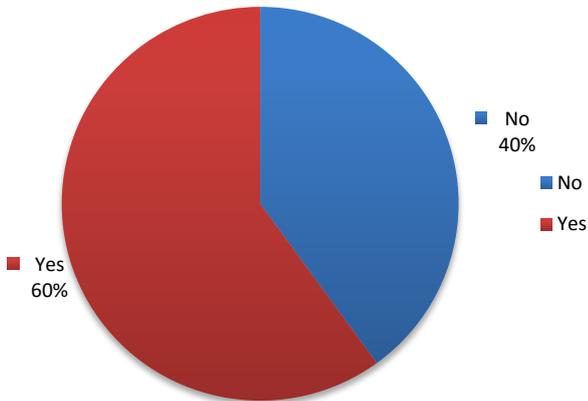
8. If yes, does this occur at certain times of the day, week, month or year?



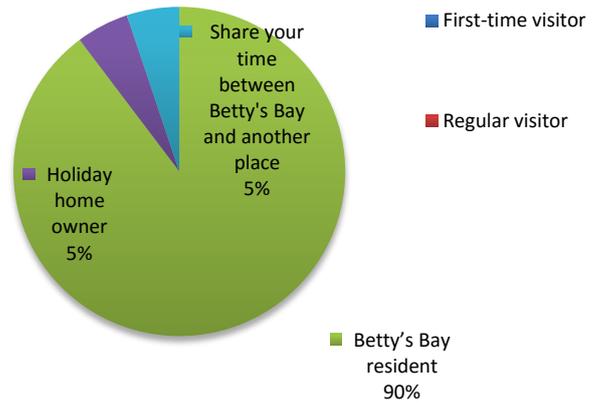
9. Do visitors to Stony Point have an impact on your daily life? Is there anything in particular that comes to mind such as noise or traffic?



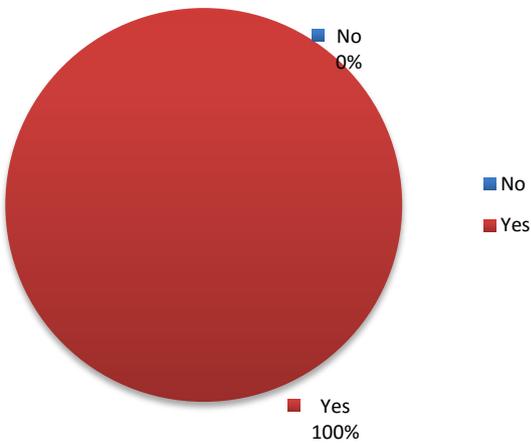
10. If yes, does this occur at certain times of the day, week, month or year?



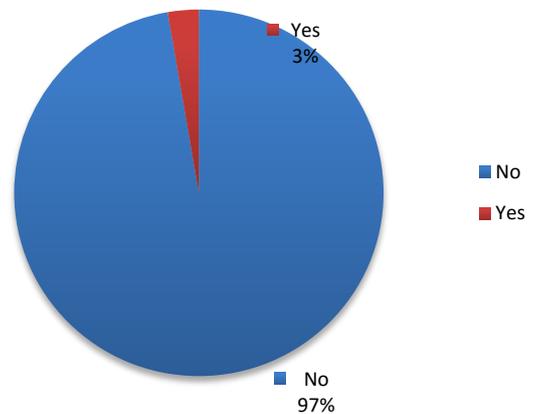
11. Which of the following options best suits/represents you?



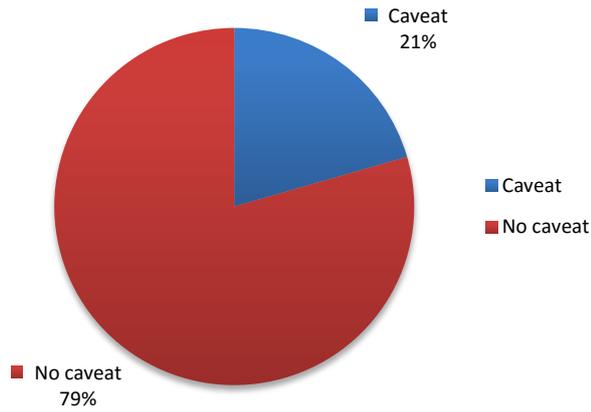
12. Do you see the upgrading of the visitor facilities as valuable to Stony Point?



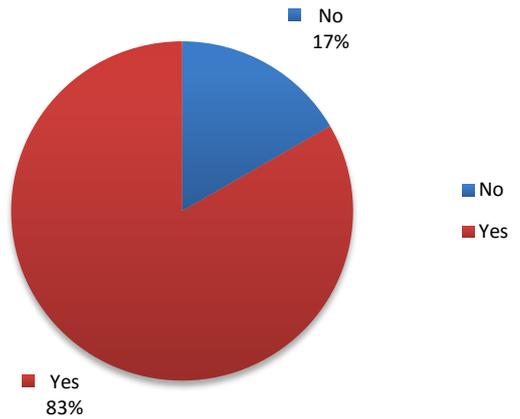
12a Have you been involved with or contacted about these changes to the visitor facilities?



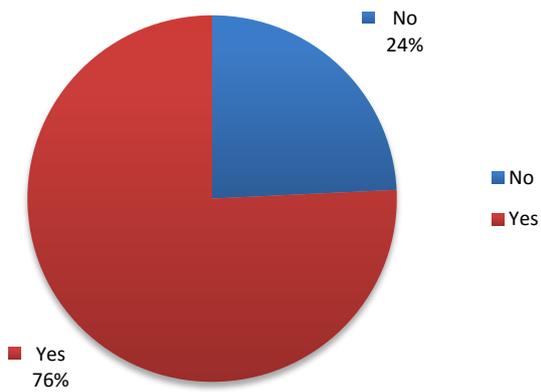
12a. Responses to 12 with and without Caveat



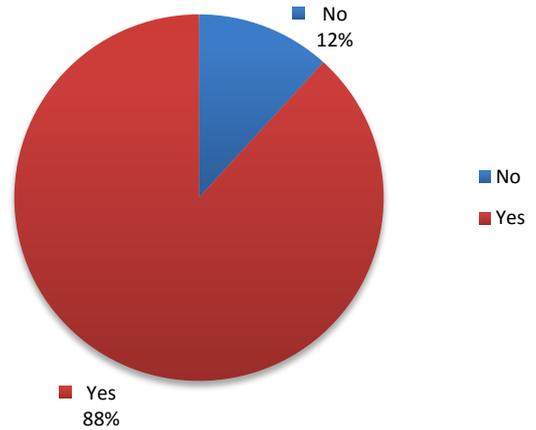
13a. Would an interpretative centre be something you would visit repeatedly if it had regularly changing video and photo content?



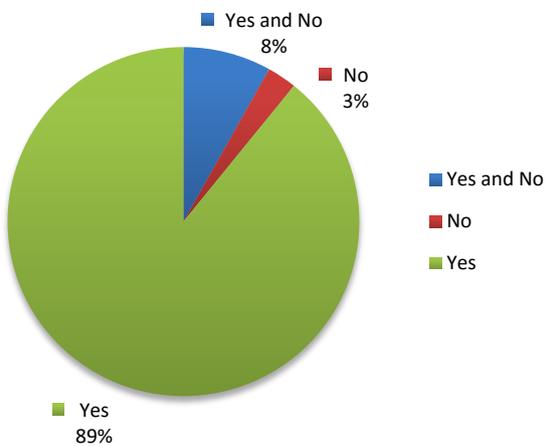
14. Is there anything in particular that you would like to see in the interpretative centre/museum?



15a. What has been your biggest problem, if any, with the management and operation of the reserve? Is this still an issue today?



17. Would you like to see more visitors at Stony Point?



Appendix 2

Betty's Bay, Stony Point Questionnaire:

Firstly, thank you for taking the time to consider this questionnaire. It is greatly appreciated!

Here is a *very* brief introduction to the wider project. This questionnaire is linked to research around Stony Point penguin colony. The research focuses on the history of the penguins in Betty's Bay and your experiences with the aim of informing future management and operation of the reserve.

The questions are either multiple-choice or require short answers (a few sentences or point form).

If you would like to know more about the project or have any suggestions, please feel free to give me a call or send me an e-mail (contact details listed at the end).

It is a standard, international research procedure to ensure participants' anonymity by default. Your details remain with me and are not published.)

There is an additional set of questions *not* included here, which would take another 15-20 minutes to complete. These questions expand on what has been asked in this questionnaire. If you would like to answer this second set too, please contact me or leave your contact details below.

1. When is the last time you visited Stony Point?

2. Do you visit the penguin colony regularly?

3. Are you aware of any other penguin colonies along the South African coast?
Yes
No

4. Do you see it as necessary to sustain the penguin colony?
Yes
No

5. Over the last 3 years have the number of penguins at Stony Point (please circle one)
 - a. Increased
 - b. Decreased
 - c. Not changed
 - d. I am unsure

6. Over the last 3 years have, the number of cormorants at Stony Point (please circle one)
 - a. Increased
 - b. Decreased
 - c. Not changed
 - d. I am unsure

7. Do the penguins have an impact on your daily life? Is there anything in particular that comes to mind such as noise or smell?

8. If yes, does this occur at certain times of the day, week, month or year?

9. Do visitors to Stony Point have an impact on your daily life? Is there anything in particular that comes to mind such as noise or traffic?

10. If yes, does this occur at certain times of the day, week, month or year?

11. Which of the following options best represents you? (circle one)
 - a. First-time visitor to Betty's Bay
 - b. Regularly visit Betty's Bay
 - c. Betty's Bay resident
 - d. Holiday home owner
 - e. Share your time between Betty's Bay and another place.

12. Do you see the upgrading of the visitor facilities as valuable to Stony Point?

- a. Have you been involved with or contacted about these changes to the visitor facilities?

13. What do you think of having an interpretative centre/museum at Stony Point?

- a. Would that be something you would visit repeatedly if it had regularly changing video and photo content?

- b. Would you see such an intervention in the Stony Point area as a valuable one in creating general awareness around (choose one):
 - i. Stony Point
 - ii. Penguins
 - iii. Fishing
 - iv. Ecosystem Functions

14. Is there anything in particular that you would like to see in the interpretative centre/museum?

- a. If yes, do you have any suggestions that would be helpful in promoting the prominence of Stony Point and boosting visitor numbers?

15. What has been your biggest problem, if any, with the management and operation of the reserve?

a. If yes, is this still an issue today?

16. What do/did you like most about the reserve? In other words, what aspect, experience or memory remains with you?

17. Would you like to see more visitors at Stony Point?

Yes

No

Your contact details:

Name:

Mobile number:

Email:

As mentioned earlier, I am more than happy to answer any questions, listen to suggestions or simply chat about Stony Point. With this in mind, please feel free to give me a call or send me an e-mail. Once again, thank you for taking the time to go through this questionnaire.

Sven Ragaller

Cell: *(removed for confidentiality)*

Email: sven.ragaller@uct.ac.za