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Stories from the front line submission: "Prawns, justice, and relationships of care in Stilbaai, South Africa"

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This story is concerned with the intersection of governance, stewardship, care taking, and extraction. It is centred on insights gained through repeated encounters with bait prawns during 7 years of fieldwork in Stilbaai, South Africa. These prawns are intended as angling bait, but they are entangled in a host of complications—or relations—the discovery of which eventually led me see them differently than before. More recently, I have looked into the role of marine protected areas in the everyday lives of residents, researching conservation management in Stilbaai in connection with the Southern Cape Interdisciplinary Fisheries Research project. In that work, I use the idea of relationality, as understood from an anthropological perspective, to speak about what long-term stewardship needs to take into account. Understanding more about the mudprawn and where it lives in the ecosystem, how people extract it, what it is used for, and how it is thought of has provided an access point for me into thinking about coastal social–ecological systems and how to communicate their needs. In this story, I reflect on these creatures as they live in my research, showing what this species can teach about coastal sustainability more generically.

Keywords: conservation, marine protected areas, relationality, social–ecology, stewardship

The story: meeting the mudprawns

One (spectacular summer) day, I joined two local conservation officials on their boat patrol of the Goukou River, in Stilbaai, South Africa. We stopped by many fishers we encountered on the water and banks to check permits and catches for regulatory compliance. Two stops in particular stand out: one involved a poor man, hunger, and a protected fish (juvenile White Steenbras or *Lithognathus lithognathus*) and the other a comparatively rich man with a bag of mudprawns. The hungry man had accidently caught and killed a protected fish, which he intended to use as immediate sustenance, and so was fined an amount that was probably 2 weeks' pay for him (as an elderly agricultural labourer). The stress of encountering enforcement and the size of the fine left him in tears. The rich man was on his own boat and fishing while vacationing at his beach house and was in possession of a number of mudprawns well over the bag limit of 50. This man laughed off his fine, a sixth of the amount written out to the elderly fisher, and handed over the bucket of prawns for confiscation. The conservation officials duly wrote up the paperwork and sealed the still-alive prawns in a transparent plastic bag, as they were now no longer bait but evidence.

This day left me reeling, emotionally. I was heartbroken that a hungry elder had been reduced to tears because a juvenile Steenbras had taken his bait and he did not recognize the fish beyond its value as protein. I was furious that the second gentleman, who had been almost delighted by the interaction with the conservation officials, had laughed off the fine as part of the cost for his chosen leisure activity, having knowingly gone over his

allowed quota, while giving every impression of not considering this a "real" transgression. Surprisingly, I was also touched by the plight of the almost 100 bait prawns that were suffocated in a plastic bag in the sun, dying to be evidence of their illegal extraction (Norton, 2020). To produce evidence in a way that would allow the prawns to be returned alive, a photograph with a time and date stamp embedded, showing the transgressor and the prawns would be needed – posed in such a manner the prawns could be counted in the photo. Due to the lack of photographic equipment on the day and the potential non-cooperation of the transgressor, it is simpler and easier to just submit the bag of prawns.

I was able to process much of the emotion I felt by writing about it: the militarization of marine resource law enforcement (Norton, 2015), the discrepancies between resource users in terms of socio-economics and how this influences how they experience penalties or incentives in terms of compliance (Norton, 2020), and the importance of understanding site-specific interpersonal interactions to evaluate the implementation of compliance regulations (Norton and Jarre, 2019). One aspect that was left underprocessed, for me, was the fate of the mudprawns. I had never considered them before, beyond being the bait that I saw being dug or a species I spoke to fishers about to find out how they were using it. I had been told that they were only useful while still alive (as the fish would not bite a dead one), that dead ones are discarded, and that 50 a day is "more than enough". I knew that they were plentiful in the mud of the estuary and valued for their use as bait by anglers, particularly for catching grunts (*Haemulidae*) and White Steenbras. At the time, I did not know much more, but they continued to play on my mind, burrowing deeper as I continued to build my understanding of Stilbaai.

Context

My work in Stilbaai has focused on looking at issues around the governance and public understanding of the Stilbaai Marine Protected Area (SMPA) (Jarre *et al.*, 2018; Southern Cape Interdisciplinary Research Project, 2019). In my conversations with residents concerning the state of the SMPA, the issue of stewardship, or *sorgskap* (care taking), has come up frequently. More precisely, the issue of how to motivate acts of stewardship amongst the broader community has been raised by questions I asked of interviewees, and those they asked of me.

In attempting to think through site-specific strategies for how to motivate stewardship towards the SMPA, I have been reflecting on my anthropological fieldwork done in this site over the last 7 years. My methods were a combination of targeted interviews and participant observation. Participant observation is premised on the idea that, to understand not only the expressed views of the research participants but also their behaviours and interactions with others, it is necessary to immerse oneself in that space and, to the degree possible and/or ethical, take part oneself in the activity under observation. This immersion is considered important for understanding the activity and the way it is experienced, to deeper meaning from the interview process. In Stilbaai, this meant activities ranging from going on patrol with the conservation officials to spending hours on the riverbanks, observing behaviour, chatting about it, and occasionally taking part in the discussed activity.

Despite the practice of ethnography being geared towards people, I have framed my work as interdisciplinary by considering the social as interwoven with the ecological, looking at both the field of marine governance and my field sites as marine social–ecological systems. In processing what I found, I have been applying the concept of relationality to look at how humans and non-humans are entangled in processes that centre on the extraction of marine resources. It is a term that, in the environmental humanities, refers to the idea of association that is central to Bruno Latour's Actor Network Theory (ANT) (Latour, 2005). ANT is premised on the acknowledgement that humans and non-humans are enmeshed in a network of becoming together and that both human and non-human objects (including animals, technologies, ideas) contribute to processes that form each other's identity, either consciously or unconsciously. Adopting that lens means taking the idea of multispecies ethnography seriously. It is a growing (and belated) trend for anthropologists to take seriously our relations with the non-human (animals and landscapes), which means looking into "how a multitude of organisms' livelihoods shape and are shaped by political, economic, and cultural forces" (Kirksey and Helmreich, 2010, p. 545). This is the lens that I have applied when looking into marine-related human activities in Stilbaai. It teaches me to ask: What matters of concern arise when we investigate how the "objects" that we interact with may have agency or consequence beyond the moment of interaction (Latour, 2004; Norton, 2020)? How can these concerns aid or inform localized forms of stewardship?

As I thought along these lines in my fieldwork, both my notes and thoughts keep returning to one such matter of concern: bait, specifically, and the mud- and sand-prawns (*Upogebia africana* and *Callichirus kraussi*, respectively) that recreational fishers dig on the eastern banks of the protected Goukou estuary that flows through Stilbaai and is included in the SMPA's boundaries. From the time that I first met these semi-translucent, burrowing creatures in 2014, getting to know them has proved instrumental in my thinking about how to get people to care for an entire system, and not just components of that system.

In my story from the front lines, I describe being introduced to these creatures by various individuals over several encounters and explain why they are useful for unpacking issues of stewardship, governance, ecosystem services, and care in relation to the SMPA. I argue that when these prawns are considered matters of public concern only once extracted from the mud and not before, they and the other life under the mud are under-appreciated as key aspects of the wider system under protection. This means that they are only considered valuable when useful as bait. Therefore, all the other aspects of them are obscured by their utility as bait, and so, together with their habitat, their protection is partial. Through understanding more about this creature and its role in the ecosystem, how people extract them, what they are used for, and how they are thought of, mudprawns have been an access point for me into thinking about coastal social–ecological systems and how to communicate their needs in a way that draws people into acts of care taking. In the narrative-driven account that follows, I reflect on prawns as they live in my research, describing what these animals taught me about coastal sustainability.

Introducing Stilbaai

My relationship with Stilbaai started with my doctoral research and has continued with post-doctoral work. For my doctorate in social anthropology, I undertook a multi-site study of marine resource law enforcement in the Western Cape, South Africa (Norton, 2014), and Stilbaai was one of these field sites.

Figure 1. Map showing location of Still Bay/Stilbaai, relative to Southern Africa (insert). Maps courtesy of Google Earth 9.3.11.2. (2020).

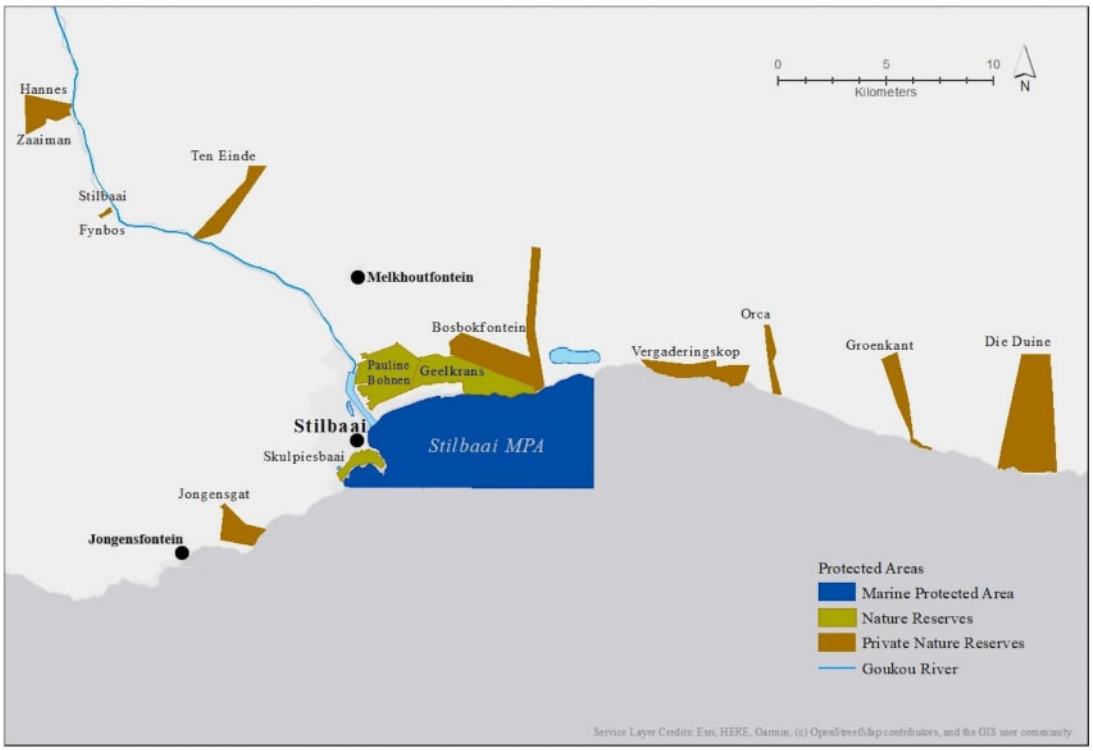

Figure 2. Map of Stilbaai and surrounds, highlighting the local protected areas (including Goukou River). The SMPA is the area between Noordkapperspunt and Rietvleivywers and includes the estuary of the Goukou River to a point 15-km upstream. The seaward boundaries are defined by two straight lines joining the following three points: (a) 34°23″0.964 S; 021°24″0.800 E (Noordkapperspunt); (b) 34°23″0.964 S; 021°30″0.976 E (a position 4.2-km offshore of Rietvleivywers); and (c) 34°21″0.676 S; 021°30″0.976E (Rietvleivywers) (Du Toit and Attwood, 2008, p. A13). The landward boundary is defined by the high water mark as it runs from Noordkapperspunt (34°23″0.964 S; 021°24″0.800 E), along Skulpiesbaai, around Morris Point, through the harbour, along the western shore of the estuary to 34°17″0.830 S; 021°18″0.620 E, ∼15-km upstream, and then back along the eastern shore of the estuary to the mouth and from there to Rietvleivywers (34°21″0.676 S; 021°30″.976 E) (Du Toit and Attwood, 2008, pp. A12–13).

Stilbaai is a coastal town on the Southern Cape coast that straddles the Goukou River estuary (Figure 1), which divides it between Wes (West) and Oos (East). The town has historically been fairly small, with a community of permanent residents, mostly retired. When I first visited it, holiday homes outnumbered permanent residences, but this has changed as the town is growing in terms of both property development and number of permanent residents. In 2018, it had a resident population of

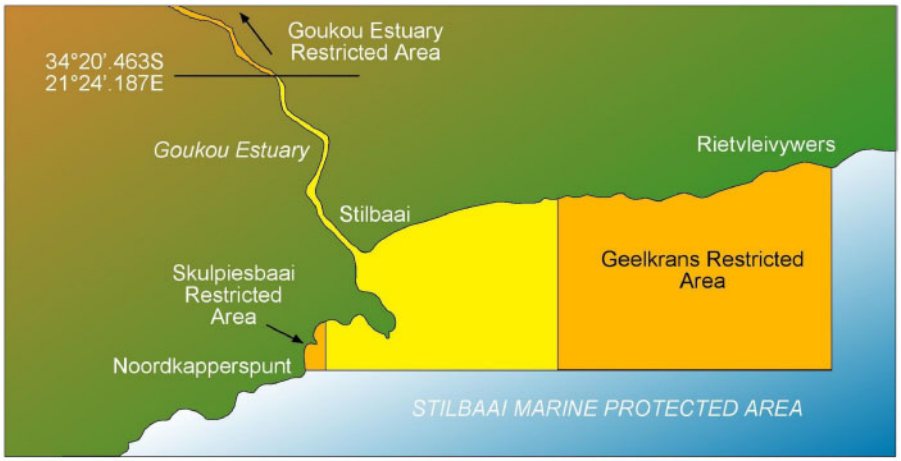

Figure 3. Map of Stilbaai showing the terrestrial reserves relative to the Controlled and Restricted Zones of the MPA including the Goukou Estuary, from Du Toit and Attwood (2008, A13). The MPA is between Noordkapperspunt and Rietvleivywers and includes the estuary of the Goukou River for 15-km (9.3 mi) upstream. The seaward boundaries are from S34°23.964′, E021°24.800′ at Noordkapperspunt to S34°23.964′, E021°30.976′ to S34°21.676′, E021°30.976′ at Rietvleivywers.

3737, with a projected growth rate of 1.55% (Hessequa Municipality Annual Report 2018/2019, p. 2). These growth rates only reflect permanent residents, and not the growing number of holiday homes: I noted at least 15 new houses on my last visit in late 2019 and research participants also say this. Increased development can be seen in Stilbaai Oos (on the hills as well as along the beachfront), the proposed development above Skulpiesbaai, and in the Stilbaai Hoogte (Heights) above the town's business centre—areas that are adjacent to or even surrounded by protected areas. The relationship between the developed and protected areas will need to be carefully monitored as increased construction and population are likely to have spill-over effects that will impact on the adjacent environment and fauna populations (Figure 2).

Stilbaai is surrounded by, and in turn surrounds, terrestrial, riverine, and marine protected areas. This proliferation of PAs is because Stilbaai is so biodiverse, with the marine protected areas including areas of dune, sandy beach, rocky shore, coastal fynbos, salt-marshes, reefs, and estuarine reeds (Du Toit and Attwood, 2008). The Goukou estuary is one of the few permanently open estuaries in South Africa, and supports a wider range of marine and estuarine species than temporarily closed estuarine systems (Royal Haskoning DHV, 2018, p. ii) leading to it being included in the 31.9-km^2 SMPA when it was inaugurated in 2008 (Figure 3). In addition to the wealth of habitats, it is home to several "iconic species", such as "southern right whales, ragged-tooth sharks, numerous species of reef fish, and many invertebrates including pansy shells" (https://www.marineprotectedareas.org.za/stilbaai-mpa).

Stilbaai has always been famous for its fishing, but with the declaration of the MPA, changes in marine resource legislation, and recent changes in species availability, there has been less commercial or small-scale fishing taking place of late (Duggan, 2018; Gammage, 2019). In terms of numbers of fishers, the seasonal holiday or weekend recreational sector is the most active. Unless they have access to an appropriate vessel, most of this fishing is river or shore based (the yellow areas on the map below are controlled, while the orange areas are restricted—no fishing allowed). I have, therefore, concentrated largely on the beaches, the riverbanks, and the river for my fieldwork.

SMPA regulations restrict bait collecting to the eastern banks of the Goukou estuary, on the mudflats that are exposed at low tide. The prawns are usually collected with a pump that consists of some sort of handheld cylinder or pipe with an internal slider. The pipe is pushed into the mud with the slider held down, and then, the slider is pulled up so that a core of mud is sucked into the cylinder. The pipe is pulled out, the slider is pushed down, and the extracted mud is dumped on the surface and sorted through for the desired biota. The pipe is usually about the circumference of an adult hand, so that both pipe and slider can be easily controlled during operation. After my day on river patrol, as recounted at the beginning of this piece, I began to pay closer attention to the act of collecting mudprawns. The bag limit on mudprawns is 50 per day, but I had seen some collect their allowed or desired (I did not always interact to determine which) amount within five to ten pumping operations, while others would work their way across a section of the flats, selecting only the fattest and leaving the rest in a trail of disturbed mud made by 15 or more pumping operations. I took walks through the channels and islands of the mudflats, poking around in these tailings, noticing how much life lived in this dynamic space. I would not say that I made an emotional connection with the prawns that day on river patrol, but the encounter did leave me with an expanded sense of the ecosystem under foot. During Easter and over summer, when the town's population can triple with an influx of holidaymakers, bait collecting can leave the eastern bank pockmarked and unsightly from pumping disturbance. Or, at least, I had begun to see this unsightliness—it had never really registered before.

However unsightly I may find a churned-up mudflat, the disturbance is more than aesthetic. It is not a selective practice in that you cannot know for sure what is under the surface of the area you are about to pump. All biota in that area is going to be brought to the surface and left there. I am not claiming that prawns are the ecologically most significant, but they are the creatures that are most frequently engaged with and this engagement is perhaps the most direct anthropogenic impact on the eastern

mudflats. Du Toit and Attwood (2008) note that in the Goukou estuary, *U. africana* in particular is "an important prey item of birds and fish, and is used for bait" (p. B10). Using prawns for bait includes the human in the food chain of which the prawn is already an important part; disturbing the cohabitant biota, then, means other food chains and processes are also being directly anthropogenically impacted.

I began to see the extraction of this resource not as taking something out, but as something being inserted. It is a small semantic shift, but by reframing the extraction of creatures as, rather, causing the "insertion" of people into the ecosystem, the apparent gap between the social and ecological is diminished. Caring for our social–ecological systems requires more than maintaining the status quo through adhering to fishing regulations or picking up litter; it requires moving beyond "sticking to the rules" to getting into active care. Under-regulated extraction of prawns, and their identification as merely bait, shows that neglecting to attend to them as agents, and their extraction as a matter of concern (Latour, 2004), reduces the sustainability of such coastal interactions.

Prawns and stewardship

When I started writing about developing voluntary stewardship within this community, where issues of fragmented governance, steady development, and social–ecological well-being intersect, I re-encountered the mudprawn. In 2018, I returned to Stilbaai to ask questions and observe behaviour related to the relationship between the community of residents and seasonal visitors and the SMPA. We were looking at the state of governance of the SMPA and, thus, our focus was the marine aspect of the system in question; it was my task to look more closely at the marine side of things. However, many interview participants did not undertake any activities in the marine protected area, other than an occasional ocean swim or beach walk. So, the river and estuary inevitably featured in this research, as did the extraction of mudprawns.

I chatted to holiday folk on the beaches and riverbanks and interviewed residents, looking particularly for those (including local conservation officials) who were active in local environmental issues. I was hoping to hear about the value of the MPA for the town in terms of tourism and as an object of pride. I met and interviewed a number of people involved in activities related to environmental education/information (a local early education centre, the local conservation officials, members of the sea-rescue organization, and the staff of the Tourism Bureau) or stewardship (e.g. the surf-club who clean their launch area, the heritage conservation organization, and the ratepayers association of riparian property owners). Many of their activities take place between the harbour and the river, or sometimes on the eastern beach, and include "walkabouts" focused on an ecological topic, beach clean-ups, or ocean-safety talks. I also asked about the local terrestrial protected areas to have something to compare with the marine protected area.

I expected to hear that the MPA was a prominent feature in their lives, acting as a drawing card for the community and a space in which to reconnect with the conservation ideals that were behind its establishment. Instead, what I found was that, despite the professed respect and even love for the ocean that was communicated in various ways, the SMPA itself was an abstract concept to most. The community at large understood the need for it and was largely in favour of it (barring some contention over regulations). However, as most sea-based activities (kayaking, surfing, windsurfing, angling) take place on or close to shore, only those with access to boats could experience the "value" of the marine section directly. The annual whale season and frequent dolphin sightings were mentioned as adding value to the town and to a sense of personal well-being. However, it was not these mammals that elicited the most enthusiasm in my participants. Instead, most spoke of physically closer encounters, such as with the local seal who lazily suns himself on rocks on the river; or the strange delight in feeding the Palinggat eels (*Anguilla mossambica*) their daily bits of chicken liver, in a ritual overseen by Tourism Bureau staff. Clearly, these more direct experiences establish more tangible relations between humans and non-human that render them more valued than the admittedly beautiful, but distant, large marine mammals.

Despite the focus on charismatic marine animals (such as whales and dolphins) in information boards or pamphlets, the river was more strongly present in the words of those to whom I spoke. It is the river that draws their relationships and practices together in a way that the offshore, activity-restricted SMPA does not. For example, when asked about the main problems they have seen in relation to human activity and the SMPA, the issue of un- or under-regulated prawn pumping on the eastern banks was one of the top issues mentioned (including perceived problems with oyster permits and littering), amongst the Stilbaai-resident participants. Illegal fishing in the SMPA was only mentioned by the conservation officials. Residents' concern around bait collecting was often aesthetic in nature (it mars the silky-ribbons of the low-tide channels and banks), but sometimes concern for the affected animals was also expressed.

On one of my trips in 2019, one informal interviewee talked about how ugly the banks could look after pumping, but also expressed concern for "all the little crabs" that are disturbed by the bait collecting. During this visit, my accommodation was right at the edge of the mudflats, on the east bank and while introducing myself I explained to the proprietor what I was doing in Stilbaai. She immediately brought up the issue of prawn pumping, taking me to the river-facing side of the property and pointing to a badly churned-up section, explaining how it was becoming common to see people with pumps made from buckets many times the diameter of the standard hand-width piping. She asked, "Can't we do something about that?". The chairperson of the local *bewaring* (heritage/preservation) organization spoke at length about this issue, lamenting the lack of care shown to the eastern banks, suggesting rotating open and closed areas or seasons to protect the mudflats and recommending a much-reduced bag limit. "How many times are you really going to cast in a day?", he asked, implying that no one is going to use up all 50 prawns allowed per day by the recreational fishing regulations. The local conservation officials confirmed what I had learned on earlier research trips with the Stilbaai marine compliance inspectors—that over-collecting bait was a regular offence, and that the enforcement of bait bag limits is often seen as an irritation or unnecessary by collectors. The "fact" that many collectors would collect either a daily limit or an excess to sell (which is not allowed under the recreational bait permit conditions) was common knowledge. The practice of high grading (selecting the best prawns and discarding the rest) is also well known. I have watched children as their father pumps for prawns, helping him sort out the choicest. A popular game amongst children is tossing

the discarded prawns at each other, squealing with somewhat-feigned disgust at the prospect of contact.

In my work with marine resource extraction over the years, I have encountered various degrees of disregard for marine life and have made a conscious effort to not *expose* such disregard but to understand it in ways that are instructive for governance purposes (Norton, 2014). Thus, pointing out that people do not care about mudprawns is not my focus; I ask, instead, "Why, or under what conditions, would they care?". It is easier to care for something beautiful and abstract, as the care can remain aesthetic and the abstract nature means that not much more is required of us. I do not know if we can make prawns "beautiful", but we can make them interesting enough that people act with more care towards them. Getting to know prawns as part of the system—as a vital engineer and an ally, a fascinating creature, and an important resource—has allowed me to hold a more complex picture of marine social–ecology steady in my head, and this has enabled me to think through the benefits of and impacts on the SMPA more deeply. The mudprawn may not have the title role in my other work in Stilbaai, but it has nonetheless been important to that work, as it is important to the system in which that work is situated.

While it was largely acknowledged by my participants that protecting this collection of habitats (the SMPA) is important, I have noted that it is of fairly abstract importance in that most people have not seen with their own eyes the biodiversity that is being protected (as it is largely under the waves). How do we amplify and develop a sense of stewardship towards this partially abstract reality? A tactic often used is to amplify an iconic or flagship species (Jepson and Barua, 2015). These are animals—often mammals and usually not a source of food for humans—that can serve several purposes for conservation initiatives (Simberloff, 1998; Walpole and Leader-Williams, 2002; Jepson and Barua, 2015). They are often the pivot for leveraging a sense of care taking, capturing the imagination or the eye, thereby becoming a concrete idea to relate to and care for. They are an effective means of engaging the public and communicating the importance of the system or habitat in question (Jepson and Barua, 2015).

A focus on such charismatic species, however, neglects wider biodiversity (Barua, 2011). For example, in Stilbaai, the system under protection reaches from that point of focus "Out There", to all the way under your feet. With the focus on something distant, it can shift the message away from coastal sustainability to ocean sustainability. What I mean by this is that there is the danger of caring for the ocean where you do not live, but not for the coast where you do. The settlement of Stilbaai, the Goukou, and the SMPA is intertwined—my research shows that more effort must be made to make explicit the connections between them, for the benefit of the local marine social–ecological system. A focus on iconic species such as whales and dolphins, or any species that is not more frequently interacted with, must be supplemented with something people can relate to experientially on a more frequent and intimate scale. Jepson and Barua argue that in order for a species "to rally support for conservation actions—it must be able to construct agency-producing relations between its material form and behaviour, wider cultural frames and a conservation action" (2015, p. 98). By this they mean that the species must be seen not only as a conservation target but also as an accepted part of an interdependent social *and* ecological system, alongside humans, other species, and system processes. To "rally support", it needs to be something that people relate to—in the simplest form, have opinions about—whether positive or negative. Conservation actions may start with the individual, but sustainability requires a community-driven, inter-generational approach that amplifies norms of care.

Therefore, I amend Jepson and Barua's above statement somewhat, to argue that the prawns are already a point of intersection between agency, behaviour, and between the social and ecological; it is up to conservationists (or the conservationally minded) to amplify these where they have been obscured. By understanding the prawn as a subject, not an object, we are able to see its agency as it relates to our own, as individuals and collectives.

Barua (2011, p. 1439), in a paper that investigates the use of metaphor in species-focused conservation campaigns, argues that "critical thinking on how language impedes (or enables) desirable outcomes is vital if public values are to be reoriented and conservation literacy to be improved". For most people, the primary source of their information on the SMPA is delivered in the form of aging information boards at various points of entry to the SMPA space. These information boards are premised on letting the public know where the boundaries are (given in GPS coordinates) and what they are not allowed to do in that space. Most visitors I spoke to did not even read the information boards, seeing them as intended for fishers only—you can fish here, but not there, take bait from here, but not there. Therefore, the primary information taken on board by most readers is a list of things they are not to do. There is no engagement or attempt to kindle any sense of interest, much less of wonder, in the natural aspects of the system under protection, no information on the important species, or description of habitat.

At the entrance to Skulpiesbaai ("Shelly Bay"; also part of the SMPA), there is a lovely information board that tells the visitor all about the ecology of rocky shores—but does nothing to point out and describe the significant feature of that beach—the Stone Age fishtraps (*visvywers*) that are still functioning and speak to this piece of coast's archaeological significance (Kemp, 2007; Henshilwood *et al.*, 2018). There is, then, a visual disconnect between the board you see before you and the rocky shore behind it, as the landscape right before you remains unacknowledged. I have seen the same "Rocky Shores" information board in several sites on the Cape's southern coast, and they are very informative. My argument here is not against more general information boards, but to suggest site-specific boards that alert the visitor about the artefact of an ancient-yet-ongoing social relationship with the coastal ecosystem right before their eyes. While the human or social aspects of the system here at Skulpiesbaai are under-acknowledged in favour of the ecological, it is the ecology of the mudflats that is under-acknowledged in favour of the social.

Without the necessary information, most visitors to the eastern banks of the Goukou are not able to see the richness of the habitat. Without that insight, why would they care? The caution here is to not to focus on only one aspect of the system, as this can lead to overlooking the wider processes that render it *as* a system. What is key, I suggest, is the representation of the system as relationships and processes, not as objects that occupy the same space. Who lives under the mud? What sustains them, and what do they sustain? What processes do they contribute to? How are they extracted, and what is the effect of extraction on them and their neighbours? This is a lot of information, but much can be visually represented. Ideally, there could be a displayed QR code that could take one to a website where all this could be explored

in depth. However (given the still-current high mobile data costs in South Africa and the relatively high number of people without smart-phones), to be inclusionary, it would probably mean the addition of signboards to the landscape. The chief conservation official and I spoke about this repeatedly over my visits in 2018–2019, and he expressed concern that more signs would result in "visual pollution" that detracted from his and the conservation organization's idea of "pristine". Certainly, there are spaces in which this would be true: for example on the stretches of sandy beach that comprise the boundary of the SMPA and are largely free of any human-built structures. However, along the river and the settlement-adjacent beaches, as well as in the parking areas or lookout points, the human has already intruded on the landscape and you are always viewing nature in conjunction with increasing development. That visual (and material) juxtaposition, of the human-made and the natural, is already present and so must be acknowledged in order for the underlying relations to be better managed.

Surfacing relations

The relationships that individuals in Stilbaai have with the ecology are embodied—not only are the environment related to cognitively, but it is also related to bodily, which can consciously and unconsciously establish physical and mental understandings of that social–ecology. This embodiment can be read in interviewees' statements in which they directly link their outdoor activities, such as walking along the river or surfing, to both physical and spiritual well-being (for example from one walker: "I feel great being out here in God's creation, breathing that air!"). By speaking about the residents' relationship with the SMPA, rather than simply their actions in the space, caring is brought to the surface. By framing interactions ("surfing", "swimming", "fishing") as relationships, the conversation opens up to the ideas of reciprocity and care. When we ask residents to develop a sense of care or practice of stewardship towards their environment, we are asking them to consciously adopt a relational perspective that is inclusive of the ecosystem and themselves. By specifically focusing on that which is most taken for granted, this understanding can be built from the bottom up.

Coming back to that emotional day on the river: would such a social–ecological approach have changed anyone's experience? That day illustrated for me the distinction between accidental and intentional disregard of marine resource regulations (Norton, 2014, 2015). It is not always feasible or possible to distinguish this in the moment of compliance enforcement, and I have seen that claims of ignorance are routinely used by members of the public to get out of penalties issued by marine resource law enforcement (Norton, 2014). However, claims of ignorance become less feasible in the face of concerted efforts to communicate with the public, in the places where extraction of, or interaction with, marine SMPA resources occurs. Surely, too, the differences in the methods of extraction also indicate a discrepancy in intention. The juvenile White Steenbras took the elder's bait and he opted to hold on to it as food rather than discard it. The bait collector removed more prawns than allowed through a focused effort and the surplus was confiscated as retrieved—but as evidence, left to die. The penalty? All fauna were ultimately dead, and the intentional transgressor was likely not dis-incentivized from future non-compliance, whereas the unintentional transgressor was left with longer-term financial and emotional strain, and the possibility of further legal proceeding against him.

I cannot help but feel that taking better care of the mudprawns would have served the goal of coastal sustainability much better than, for example further impoverishing an old man did, in the moment and in the long term. Taking care of the mudprawns means taking care of their environment, of them, and "ourselves"—those who do currently, and those who in the future will, rely on the functions of this system for their own well-being and sustenance. What this example illustrates is a lack consideration for social justice, which would have taken the need for nutritional security into account and skewed attention to key aspects of the ecosystem. It also did not truly achieve ecological justice, which would prioritize the life of the prawns over the need to bag them for evidence.

What this example shows is that a focus on these two ideas of "justice" as discrete is problematic and serves to perpetuate harm. It benefits neither society nor the ecology to play them off against each other. Furthermore, it shows that regarding subjects as objects is a framing that is premised on a denial of relations and agency. Mudprawns cannot be contained by their objectification as "bait". That obscures the multitude of ways for valuing them that extend beyond the human act. These relations or interactions are too often rendered invisible. For coastal sustainability to succeed, the capacity to recognize the interactions that enmesh the social and ecological, which always overflow the boundaries of protected areas or categories, must be actively developed by the public, researchers, and managers. This relies on the acknowledgement that to be true stewards, to take care, requires us to be aware of the relational nature of the human and non-human assemblages of which our collective lives consist.

Data availability statement

The data underlying this article cannot be shared publicly due to the ethical clearance regulations under which the research was authorized, which requires that the identities of individuals who participated in the study remain anonymous. The data will be shared on reasonable request to the corresponding author.

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