

Letterwood **Old and new myths about the wilderness**

by Tijs Goldschmidt

Only human beings set up nature reserves – no other species does so. Of course, there are plenty of animals who are good hosts for their parasites, though. Who knows, perhaps a tick in a dog's ear thinks it is in a nature reserve, or a roundworm sees a pig's gut as a safe refuge. But clearly this is not the same as the nature reserves I am thinking of. There are also animals who keep slaves, the best-known example being aphid-exploiting ants, but this is not what I mean either. As far as I know, animals who *have* nature reserves rather than *being* them have not been discovered.

Conservationists deliberately choose to preserve a valuable area, not because it is of direct practical use, nor because it produces grain, meat, milk or some other product, but because they realize that it is important to protect the plants and animals which occur in that area if there is to be any hope of preserving them. Of course you might say that the aesthetic pleasure and recreational value which visitors to these areas may experience are useful, but the primary concern is the intrinsic value of the area. The motivations for preserving such areas are usually ethical and moral. It is encouraging to see that more and more people are making an effort to enable other living creatures to escape from the all-pervasive and often devastating influence of modern man. Illegal logging, overfishing, the catastrophic impact of invasive species, the global climate changes which are probably due to human activities – who has never been upset by all the information about depressing developments like these?

Human beings not only create nature reserves, they are also the only creatures able to regard other biological species as unique sets of adaptations to the environment. Often these natural assemblages of adaptations bear witness to millions of years of experience. Philosophers may find the word 'experience' inappropriate in this context, but I am going to use it all the same. Whoever exterminates a biological species not only destroys experience with the world, but probably much more as well, because no two species play exactly the same role. They occupy different ecological niches, they have different jobs in the ecosystem, you might say. If one species disappears, there are repercussions through the whole system. The fact that biological species are unique gives them their right to exist, and this implies that uniqueness is a property shared by all species on earth. In other words, there is nothing unusual about being unique.

About six months ago there were frequent reports in Western newspapers about the condition of Terri Schiavo, a 41-year-old woman who had been living in a vegetative state since 1990. For years her husband had wanted her artificial feeding to be stopped so that she could die, but her parents were opposed to this. A lengthy court case was the result. There were regular updates in the papers on her condition, when she had last been fed and hydrated, which sides people in and outside the family were taking and also what the high court judges thought about the matter. Apparently it fascinated many people, including me.

The overwhelming media attention for Terri Schiavo was in stark contrast to the interest in a UN report published during the same period. In this report, about thirteen hundred researchers described the state of a large number of ecosystems of crucial importance to the preservation of biodiversity, and possibly even for our own survival. The state of the ecosystems described in the UN report is a source of concern to nature lovers. You might have expected that more would have been written and more in-depth analyses would have appeared on this topic than about the by then world-famous coma patient, but strangely enough this was not the case. Fortunately most newspapers did devote some

attention to it, sometimes even on the front page, but interest died down rapidly. The vulnerable ecosystems were soon forgotten and attention again focused on the patient, who knew nothing of all the commotion and was too deeply in coma even to be able to want to die.

I think that this example is typical of something rather more universal of which literary experts and journalists have long been aware. People would much rather read about a sore toe, preferably one of their own, of course, but it could also be the glamorous toe of a film star, than about a disaster taking place far away. All authors and journalists writing about wildlife must address this fact, whether they like it or not. The challenge they face is to vividly transform the ecological disasters they want to bring to people's attention into sore toes. Ghosh does this very well in *The Hungry Tide*. At different times during the past centuries, the characters in the novel, particularly the dolphin researcher Piya Roy, have experienced the richness of life in the Sundarbans and the surrounding areas. They have seen, for instance, how after a heavy gale about twenty whales which had lost their sense of direction were caught in shallow tide pools in the Bay of Bengal, that there were countless river and coastal dolphins swimming around, and how at low tide the beach was coloured purple by the millions of crabs crawling over it. Ghosh also evocatively describes how few people lived in the Sundarbans in the colonial era, because the government had set up a nature reserve in honour of the tiger. There was no room there for the local population. Anyone who has read the novel will understand how vulnerable this mangrove forest is. You also realize what ethical problems arise when the artificial preservation of the tiger, which in the course of the internationally heavily subsidized *Project Tiger* starts to bear more and more resemblance to a coma patient, is given priority above relief for desperate war refugees from Bangladesh. 'Are we even less important than a tiger?', they sigh.

Born forty-five years later than Jacques-Henri Bernardin de Saint-Pierre, the English country squire Charles Waterton (1782-1865) was a pioneer in natural history writing. He owned a large property, Walton Hall, in the English county of Lancashire and made several long trips to British Guiana (1812, 1816, 1820) and the United States (1824). He had a playful, unorthodox mind and went to considerable lengths imagining himself as various animals, a very unusual phenomenon at the time. For example, when designing the stables on his property he made sure his horses would be able to see each other while conversing. This was a consideration few people would have thought of at the time, let alone one they would have taken into account when designing buildings. It was also remarkable that Waterton took an interest in birds and amphibians, such as crows or toads, which were commonly regarded as vermin. He was furious when his neighbour, Sir William Pilkington, shot the last raven in Yorkshire, a reaction which was regarded as an exaggeration at the time.

Even when he was nearly eighty, Waterton, who was extremely agile, still climbed trees with ease in order to have a better view of a pair of nesting birds of prey. In doing so, Waterton was a forerunner of present-day field biologists such as Rob Bijlsma, author of a definitive raptor atlas, who frequently spends long hours high up in trees studying the behaviour of these birds. At other times Waterton would sit in a comfortable spot at the top of a tree reading Ovid, or spying on visitors to his property, which he had opened to the public. You might say that Waterton was for animals what Stendhal was for human beings, a pioneer in the field of ethology. Stendhal dissected human love in all its forms, while Waterton did the same with the behaviour of a wide variety of animals such as kingfishers, beetles and badgers, to which hardly anybody paid any attention at the time.

Waterton came from a Catholic family and detested Protestants, who were all over England and who thwarted him, looked down on him and even terrorized him in all sorts of ways. At that time Catholics were not allowed to go to university, so it was impossible for him to have any formal training in biological subjects. This resulted in a lifelong frustration towards university-trained naturalists, and it may also explain his aversion to book knowledge. The hatred of Protestants of this otherwise so mild-mannered man was so deep

and so primitive that he projected it onto the brown rat, which he associated with the detested Protestant King William III of Orange. The story goes that brown rats came to England on William of Orange's ship when, at the request of the English Whigs, he came to depose the Catholic English King James II. The association of the brown rat with the hated king was common, but in Waterton it assumed an excessive form. Brown rats made life hell for black rats, if we can believe Waterton. He was convinced that brown rats were distinctly Protestant animals, brimming, in his view, with grim Protestant diligence, and he destroyed them with sadistic pleasure. He regarded the black rat, with which he himself identified, as an oppressed and defenceless Catholic creature that should be cherished, even though it is this species that spreads the plague. It was not until a century or so later that Gerard Reve also came to the conclusion that there was such a thing as a typically Catholic species of animal. In a letter to Rudy Kousbroek Reve wrote of the parrot: 'On the authority of Ripa's manual this fine feathered friend of man is doctrinally recognized by the Roman Catholic church as a Catholic bird, partly because apart from man it is the only animal which can say Ave.' I do not know if he knew Waterton's work, but I do know that he was one of the editors of *Tirade* when Bernlef devoted an article to the country squire in this magazine in 1964.

Waterton observed out of pure curiosity, not because he was on the lookout for some practical application, and certainly not because he was interested in breeding or domesticating animals, though he did like to have semi-tame owls flying round his bedroom. In the first instance he was simply interested in observing wild animals in their natural surroundings and wanted to experience as much as he could himself. This often led to behaviour which even now we would find eccentric. People found him strange and his activities at the very least 'unusual'.

For instance, he decided that at least once in his life he wanted to experience a South American vampire bat sucking his blood. With this purpose in mind, during a trip through the jungle in British Guiana, for many nights he left one foot dangling out of his hammock, which was suspended between two trees. But he had no luck: the vampire bats were not attracted to the then still young Englishman, preferring one of his assistants instead.

The picture I have given so far has been limited mainly to the eccentric side of the squire and has come partly from the book *English Eccentrics* by the poet Edith Sitwell, but Julia Blackburn, Waterton's biographer and my most important source on this subject, emphasizes that he was much more than that. As well as being an unconventional man, he was also an important pioneer in the area of conservation and environmental activism.

In his book *Wanderings* he wrote obsessive, sometimes funny and always idiosyncratic accounts of his trips to British Guiana and North America. In her rich biography, Blackburn quotes Theodore Roosevelt, who like so many other amateur naturalists was enthusiastic about *Wanderings* and saw a new literary genre in the book: 'the beginning of a literature in which field biologists who were also authors described the fascination and the importance, the horror and the beauty of the distant wilderness, where nature calms intrepid souls and inspires the spirit'.

Unlike Bernardin de Saint-Pierre and Amitav Ghosh, Waterton did not write fiction but diary notes. Sometimes they bear a suspicious resemblance to an ornithological field guide or a folder intended to attract biologists to British Guiana to conduct the extensive research he himself never got around to. But Waterton was not only an enthusiastic birdwatcher; he was also concerned about the advance of civilization. Roaming inland through the virgin jungle along the Essequibo River he remarked: 'In this retired and solitary tract Nature's garb, to all appearance, has not been injured by fire nor her productions broken in upon by the exterminating hand of man'. He also realized long before the foundation of Yosemite National Park what the Americans would lose if they went on cutting down and exploiting forests as they were. He predicted, for example, the disastrous effects of erosion. In this respect he was just as observant as Bernardin de Saint-Pierre was in Mauritius and way ahead of his time. At that time it was very uncommon to give detailed descriptions of wildlife

in a book out of interest in nature itself. In Gothic novels – such as those by Ann Radcliffe – written in the late eighteenth century descriptions like these were included mainly to make the reader shudder. Waterton did not write horror stories and imagination plays a very minor role in his work. But I like his fresh style, the provisional nature of his notes, the absence of the often somewhat artificial constructions a novelist usually cannot avoid. You can feel Waterton's enthusiasm – he simply *has* to tell us about all the fantastic things he has seen and experienced. A Protestant would probably have preferred something more succinct; you are overwhelmed with information and experiences.

Literary experts would probably not classify Waterton as a great stylist, unlike the Belgian poet and painter Henri Michaux, for example, who also wrote a book, published in 1929, about the time he spent in the South American jungle. In this book, *Ecuador: a Travel Journal*, he complains brilliantly about his discomfort. But Waterton's writing is lively, he makes original observations, he has a natural feel for what to record and what not to, and he takes a critical look at the statements of his predecessors. We know that he selected carefully from his notes for *Wanderings*, and certainly did not use them all. Not wanting to focus constantly on himself in his book – a shortcoming of so many travel accounts – he spares the reader a great deal of the distress he suffered, such as malaria attacks, dysentery and lack of food. He did this out of modesty, because he thought his own ailments would not be very interesting to other people, which seems to me a wise decision. Only a very good writer like Michaux can get away with an entire book spent moaning about 'that terrible journey' and all the discomfort he suffered: 'Saturated with quinine, heat, the rocking of the canoe, the endless dense foliage of the Amazon jungle, the immense amount of water behind us and ahead of us, and of course also ahead of us marsh fever, but that is nothing, there is yellow fever as well, and then you have to go on like that for another thirteen days, on and on, with sunken cheeks and a general malaise of the heart, stomach and lungs'. But later Waterton was criticized by self-respecting naturalists for writing so little about these matters. You can never make everyone happy. They accused him not only of making things up but also of painting too rosy a picture of life in the jungle. Surely it was irresponsible to tempt innocent travellers into the wilderness by conjuring up visions of a garden of Eden?

Waterton did not write novels, and it would certainly never have occurred to him to make up a story set in a country he had never visited, as Bernardin de Saint-Pierre did. But this non-conformist outsider did find an inspiring way to write about nature.

Waterton's visits to British Guiana, where a relative of his owned a plantation in Demerara, sometimes lasted up to eleven months. Often he would set off into the jungle, unarmed and barefoot, accompanied only by local assistants. This was unusual at the time. He had discovered that most animals, even jaguars, would leave you alone so long as you didn't corner them or frighten them. He already knew, for instance, that the only thing you needed to do to avoid trouble from snakes was not to step on them. The man-eating tigers in the Sundarbans which threaten the lives of local residents as soon as they enter the tiger reserve illegally to forage for firewood are quite exceptional in this respect. Intuitively, Waterton tried the method of unarmed approach which became common only in the 1960s thanks to field biologists such as George Schaller, Jane Goodall and Dian Fossey.

This does not mean that he never killed animals, though. He shot birds, and he tells a story about a cayman which he claims to have caught, with the help of his assistants, by jumping on its back, seizing its front legs and twisting them on to its back, so that he ended up mounted like a jockey on the cayman, holding its legs 'like a bridle' in his hands. It was because of crocodile stories like these that Waterton was not always taken seriously.

Unlike 'respectable' biologists, the squire was constantly distracted. He would always see an even stranger animal, or an even more wonderful tree would delight him, such as the locust tree, the ebony tree or the letterwood tree. While Waterton did sometimes project human properties on to animals, he never did so with the goal of showing them up as 'inferior' in comparison with 'superior' human beings. He was convinced that animals also

have emotions and that he should at least make an attempt to put himself in their position. In this respect he is very different from the later ethologist Niko Tinbergen, who while not denying that animals have emotions thought that it was hard to say anything meaningful on the topic and therefore preferred to say nothing. In retrospect, this was an over-pessimistic view.

An account of Waterton's meeting with the sloth, an animal with which he must have had an affinity even if only because he himself also loved to spend days high in the treetops, is typical of his way of observing animals. The sloth, he wrote, looks at you as if to say: 'Have pity on me, for I am in pain and sorrow'. Of course, these are unfounded impressions, projected onto an animal that simply has rather a sad expression, however cheerful it may be feeling. But at least Waterton did not see the sloth as a Cartesian machine, incapable of feeling emotions, and what he wrote was a tribute to the dignity of the sloth: 'Let us now turn our attention to the Sloth, whose native haunts have hitherto been so little known, and probably little looked into. Those who have written on this singular animal, have remarked that he is in a perpetual state of pain, that he is proverbially slow in its movements, that he is a prisoner in space, and that as soon as he has consumed all the leaves of the tree upon which he had mounted, he rolls himself up in the form of a ball, and then falls to the ground'.

Waterton observed carefully and ascertained that the descriptions he had seen were completely erroneous: 'If the naturalists who have written the history of the sloth had gone into the wilds, in order to examine his haunts and economy, they would not have drawn the foregoing conclusions; they would have learned, that though all other quadrupeds may be described while resting upon the ground, the sloth is an exception to this rule, and that his history must be written while he is in the tree. This singular animal is destined by nature to be produced, to live and to die in the trees'.

When Waterton left this sloth, he said goodbye to him, predicting that the animal would probably never meet a human being again in his whole life. In this respect times have changed greatly. Nowadays you would try to train the sloth to run away as soon it heard a chain saw and only then wish it luck. Who can forget the horrific reception of the orang utans who tried to escape from the sea of fire during the bushfires in Kalimantan about seven years ago? They were forced to enter the domain regarded by human beings as theirs. Apparently by doing so they committed an unacceptable violation of the boundary – actually a fictitious one – between the human domain and the wilderness, and they paid for it with their lives. They were brutally murdered, in some cases even with chain saws.

It would not surprise me if those loggers had never seen an orang utan in the wild before and were terrified. In Rousseau's time it was thought in the West that orang utans were a human race and were therefore in principle capable of speech, but had not yet had an opportunity to learn. It was just a matter of speech lessons, and then the orang utans would be fine. The loggers certainly did not see the orang utans as human, as these romantics did, but the question is how they did see them. Any belief in a traditional story prescribing cautious treatment of the orang utan was very far from their minds. The Bon Bibi legend is an example of how effective this form of wildlife protection can be, and I would like to give another example which is also associated with tigers, but with Sumatran ones.

In her book *Het verbond met de tijger* [The Pact with the Tiger] anthropologist Jet Bakels writes that the tigers in the Kerinci valley had little to fear from enemies before the isolation of the region broke down. The local residents saw the powerful and elegant tiger as an animal gifted with reason, which they avoided as much as possible. Nobody in the Kerinci valley would have dreamed of hunting a tiger, which might be the reincarnation of a human being. The fear that a spirit or ancestor tiger might take vengeance was much too great. Nobody spoke the name of the tiger, which according to the stories had sacred powers. People preferred to speak of 'the Patron of the Forest'.

A spirit tiger, unlike the 'ordinary' ones which also existed, would never kill and eat a human being for no reason. If a villager was killed and devoured by a spirit tiger, he had

probably done something to deserve it. He must have done something wrong while in the forest. Anyone entering that sacred domain had to show respect by putting a leaf behind their ear, asking the spirits of the forest for protection and speaking in a whisper.

Cutting down trees for no good reason was altogether out of the question. The villagers were too afraid the tigers would take revenge. The chance that a tiger will attack a human being certainly increases if the forest is cut down so that it becomes more difficult for a tiger to find its prey, but this was not the way the villagers understood it. Only if a tiger entered the domain of human beings and attacked someone without provocation could it be killed. In *The Hungry Tide* Ghosh also describes the horrific slaughter by villagers of a boundary-crossing tiger which had become a man-eater.

The close relationship between the Kerinci valley people and the tigers always worked as an efficient form of wildlife protection, as was probably also the case in the Sundarbans. Unfortunately belief in spirit tigers is crumbling rapidly, so that the animal is now becoming a potential prey for local hunters as well. But fear of the spirit tiger has not yet completely disappeared. Just a few years ago a Kerinci villager accidentally caught a tiger in his deer trap and the tiger died. Out of fear that the tiger spirits would take revenge, the man moved to Jakarta, where he now sells potatoes at the market.

The fictitious gap created by dualistic thinkers between man and nature provided not only the legitimization to slaughter animals at will, but in the colonial era, as we have just heard, also to expel the local population from nature reserves in India. These people are still not seen as a link in the ecosystem which is to be protected, but as a destructive factor which the conservationists have to remove. This may well be counterproductive, predicts Ghosh; it will probably lead to them joining forces and standing up for their rights, and when they have won their case, they will return. But by then they will no longer be the same people. Along with the loss of belief in spirit tigers, or in local legends such as the Bon Bibi legend, the protective effect of these stories will also disappear.

In the post-colonial era things have apparently not improved for the expelled local population of the Indian reserves. The post-colonials now in control in the Indian government have to a large extent adopted the ideas of the colonials. It is striking that it is the urban elite who enable the conservationists to keep the reserve undefiled, in the sense that it may no longer be sullied by the touch of human beings, even those who have lived in the area for centuries, and certainly not by a stream of refugees far greater than the surrounding region can assimilate, as was the case in the Sundarbans.

Of course the corruption cannot be justified, and neither can the paramilitary approach of the administrators Ghosh has told us about; but nevertheless there is good reason to fear the presence of local residents. Is it not an illusion to think that the original population will not increase greatly in numbers, so that soon the balance between human beings and the other inhabitants of the forest will be upset? And would not the local population have changed anyway if they had been allowed to stay? Do they still care that entering the forest with a ghetto blaster is prohibited because it would disturb the tigers? Do they understand that they should not hunt tigers and other endangered species with modern weapons? What should be done if they do not wish to behave like exemplary Greenpeace activists, if they refuse to live like a protected species, and if they multiply disproportionately? I have the impression that the local resident with an 'environmental unconscious', as Ghosh puts it, is nothing less than a contemporary version of Rousseau's 'noble savage'. I think it would be unwise to assume that they would stand up for their own long-term interests when there are so many more urgent problems they have to confront.

For many years now the African Masai have not been allowed to graze their cattle on the vast plains of the Serengeti National Park in Tanzania. Of course they would like to, they have done so for centuries, but the consequences for the Serengeti ecosystem would be disastrous. Based on the realistic assumption that each Masai needs twenty cows to survive, and taking expected population growth into account, conservationist Herbert Prins once calculated that after about thirty years there would be nothing left of the entire Serengeti.

Within a very short time the plains would be teeming with Masai and all the wildebeest would have been replaced by their cattle – unless the Masai were forced to practise contraception and the numbers of their offspring were strictly regulated. I do not think that the Tanzanian government would be prepared to take measures of this kind, nor do I expect they would be very happy with interfering Western conservationists, who practically eliminated their own wolves, bears and bison long ago, wanting to impose them. I cannot see any really feasible solution which would do full justice to the Masai.

Of course the local population, with their specific requirements, should be involved in running the reserve; otherwise its management will indubitably be sabotaged. Ghosh is not the only one who rightly advocates this; the evolutionary biologist and conservationist Edward Wilson does the same in his book *The Future of Life* (2002). He stresses how important it is to educate local residents, especially children, about the value of the area and to train them as park rangers, biologists or guides for ecotourists. It is essential for the local population to realize that it is in their own interest to preserve the area and conservationists must then guarantee that this actually happens. But I am afraid Wilson is too optimistic about the chances of his far-reaching plans succeeding. Conservation organizations would probably provide funding to train these park rangers and ecotourist guides, but who is going to pay their salaries after that? Potentially, a well-trained park ranger or a guide who is no longer being paid is the most efficient poacher imaginable. He knows where to find all the animals, he knows where their hiding-places are. I must admit that I would rather put my savings in a Bolivian bank than have faith in the ecological solidarity with the animals in the forest of an unpaid park ranger with a starving family.

Let us return to Waterton, who made a significant contribution to the discussion about the boundary between man and animals. For example, he once heard a story about monkeys throwing sticks at people. That would be exciting, because it would mean that animals as well as people use tools. Waterton did not believe what was said without question but went to look for himself: 'Probably travellers have erred in asserting that the monkeys of South America throw sticks and fruit at their pursuers. I have had fine opportunities of narrowly watching the different species of monkeys which are found in the wilds, betwixt the Amazons and the Oroonoque. I entirely acquit them of acting on the offensive. When the monkeys are in the high trees over your head, the dead branches will now and then fall down upon you, having been broken off as the monkeys pass along them; but they are never hurled from their hands'.

It was only in the second half of the twentieth century that primatologists established that tools were used by a wide variety of animals, such as chimpanzees and Caledonian crows, and not until 2004 that publications appeared about South American capuchin monkeys which, when foraging for roots and seeds, use stones to dig up hard dry ground and to crack nuts.

In the mid-1990s the biologist Marc van Roosmalen, who had been doing fieldwork for nearly twenty years, made an interesting find. He discovered a species of monkey previously unknown to science, the dwarf marmoset (*Callithrix humilis*), which was so different that a new genus had to be created to give it a place in the Linnaean classification system. It is unusual in the world of science for a new species of mammal to be found at all, but to find a monkey which looks so strange that a whole new genus has to be set up for it was something that had not happened since 1906.

In response to this discovery, Cherry Duyns made a memorable documentary for the VPRO broadcasting association, for which he went with Van Roosmalen to see the monkeys in their natural surroundings. It was amusing to see Duyns, all dressed up in his tropical gear, well prepared for encounters with twelve-metre-long anacondas and fist-sized bird spiders, walking along behind the eccentric, spider-like, latter-day hippie Van Roosmalen, who apparently moved barefoot through the jungle like a contemporary Waterton. He felt completely at home there and displayed great knowledge of the relationships between all sorts of fruits, herbs, trees and animals.

Surprisingly enough, the special monkeys did not live deep in the forest but along the river near human settlements. They had become camp followers of man, but they had been more fortunate than the Indonesian orang utans fleeing from the fire; they were not wiped out by the local residents, who had arrived relatively recently. They were not Indians but distant descendants of Portuguese colonists. During earlier visits Van Roosmalen had done his best to convince these people that they had a special attraction in their backyards, and he was planning to set up a reserve. The local population would certainly be involved in managing it. Van Roosmalen had given presents which would benefit the whole community to one of the village leaders.

Van Roosmalen again had gifts with him when he returned with Duyns to film the monkeys. This time he gave them to a different village leader, as a token of gratitude for his reception. Duyns and Van Roosmalen said goodbye and were already in the boat, ready to leave, when they saw plumes of smoke rising above one of the trees where the special monkeys lived. Fortunately they decided to film this incident as well and to include it in the documentary. The fire had been lit by the village leader who had received the gifts on the previous occasion and who now felt passed over. I do not think the vulnerability of an unfamiliar ecosystem has ever been brought home to me so effectively as by the smoke plume scene in this film. Instead of the zoo director's admonishing voiceover which concludes every Dutch wildlife documentary with the standard information that all will be over and done with if we don't watch out, this time we experienced this fact practically live.

Apparently Ghosh has a different view, but as far as I am concerned the form in which this experience is conveyed does not necessarily have to be fiction. A documentary or an essay can show different dimensions of this vulnerability, or provide an opportunity to go into technical details at greater depth. Long passages about the differences in structure of the mitochondrial DNA of closely related marmosets would probably not enhance a novel about Van Roosmalen's fieldwork. However depressing this documentary was, it is Van Roosmalen in particular who has repeatedly pointed out that the Amazon jungle has certainly not disappeared yet, as is being implied by some researchers. Waterton would undoubtedly be pleased to know that Van Roosmalen is continuing his own work and that of naturalists who have gained worldwide recognition, such as Alfred Russel Wallace and Henry Bates. Van Roosmalen has not only discovered several new species of titi monkey (*Callicebus*) in the Amazon jungle, but even large mammals, such as a giant tapir and a black jaguar with a white chest.

Waterton had a great gift for conserving and stuffing animals. He is in fact regarded as the best taxidermist of his time. As well as stuffing existing species so that they looked as real as possible, he also had lots of fun putting together novelties from various anatomical structures of different animals and then claiming that they were animals which had died out long ago. He did his best to make these freaks and monsters look as terrifying as he could. Each of the assembled mythical creatures was named after one of the many Protestants who poisoned his life.

In itself it was very progressive to imply that the freaks and monsters had died out long ago, because people were only just beginning to realize that there were in fact species which had died out. Up to the end of the eighteenth century it was assumed that all species of plants and animals had been created by God about six thousand years ago in a form which would remain the same forever. Even Waterton cannot have had any idea that the earth is over 3.5 billion years old, that there is genetic unity in life, and that 99.9% of the species which were once part of this unity have already died out.

Just as there were scholars who thought that orang utans were a race of human beings, there were others who thought that in the wilderness there would still be 'savages living in animal conditions without speech'. It is possible that it was speculations of this kind which led Waterton to make an assemblage which was to do great damage to his reputation. From the skin of the buttocks of a red howler monkey Waterton manufactured the face of a human being which could pass as the prototype of a gentleman. He called this primitive

creature the 'Non-Descript' and also added its 'local Indian name': Itouli, a corruption of 'I too lie.' A rather silly joke, and certainly not intended to actually deceive his readers. Waterton was quite hurt when serious scientists did not appreciate the Non-Descript, a picture of which appeared on the title page of *Wanderings*. While fiction – according to Ghosh – may well be the ideal form in which to write about natural history and the present ecological crisis, essayists or journalists should think twice before mixing fact and fable. Non-fiction which is not true is certain to lead to scepticism, especially when readers are entirely dependent on the reliability of the writer since they are not very likely to travel to the exotic locations where the story is set.

Nowadays, anyone who thinks that falsifications of this kind no longer occur outside literature is mistaken. For De Saint-Pierre nature was a sacred place, for the 'wild thinker' Edward Blyth it was untamed territory, or wilderness. Ghosh points out that what these two very different views have in common is that they both see nature as a place where there is no room for man. In this sense both De Saint-Pierre and Blyth were dualistic thinkers. The present-day 'wild fiction' I would now like to talk about has its roots in this same dualistic thinking and is actually based on an old trick. But this time the goal is not to impose a dichotomy in order to emphasize the superiority of man and thus to justify slaughtering the animals, but just the opposite – it is to declare them sacred. Just as seems to have happened with the tiger.

Since 1986 a worldwide moratorium has been in force prohibiting all whale-hunting. This includes species which are no longer rare and even from a conservationist's point of view could tolerate a certain amount of well-managed hunting. Leaving aside moral and ethical considerations, and taking only ecological arguments into account, there can be few objections to strictly monitored hunting on a limited scale. It is estimated that there are 75 to 80 species of whale on earth. Recently, there was even a new species found; it does not belong to a new genus, but is nevertheless an extraordinary discovery. This animal is related to the saltwater and fresh water dolphins (*Orcaella*) in the Sundarbans which Ghosh has described so well.

There is consensus that no whale species should be exterminated. It is striking that people who are happy to consume meat, even bio-industry meat, would have strong objections if hunting of whale species which are not rare was to be permitted again. Anthropologist Arne Kalland showed this in a penetrating analysis. He makes a plausible case that the whale has become a modern totem animal: it is taboo to slaughter whales like cattle and they are venerated like some kind of pseudo-ancestor.

What properties make whales so ideal to serve as a totem? Why do they appeal to the emotions of Western town-dwellers in particular? Most of these people have never seen a whale, just as the Indian elite has had no personal experience with wild tigers. But this group often includes generous donors to conservation organizations, environmental activists and animal rights activists. Surely they must be given the opportunity to buy off their guilt in a meaningful way?

The attractive properties of widely varying species of whale have all been lumped together in a bizarre way. On paper, possibly not even deliberately, an ideal whale has been assembled to serve as a totem animal and attract donations: a symbolic superwhale which has never lived and never will. An animal that would fit in well with Jorge Luis Borges's imaginary beings, among the unicorns, the heavenly deer and the beast with a hundred heads. It is not so difficult to assemble this superwhale. Just take the volume of the blue whale, the biggest animal on earth; insert into its head the intricately folded brain of the sperm whale, the biggest brain ever borne by any animal; give it the playfulness of the humpback and the social intelligence and curiosity of the dolphins from the Sundarbans; and if possible make it smile as mysteriously as a Buddha. And then one more crucial step – mark out its territory. The symbolic superwhale lives far from polluted cities and rivers, occurring only in pristine ocean water, in areas which are practically free of human beings; only the occasional noble Inuit rows past in his kayak.

It is alarming when dozens of harbour porpoises and dolphins turn up in polluted seas along shores where donors live. This happened recently in the Netherlands and it was immediately felt that an explanation was needed. Have cod, the prey of these whales, now really run out, or was it because of increasing underwater noise, which may temporarily deafen the animals, causing them to lose their bearings? Or was it yet another sign that climate change is a fact and were the whales confused by the rising temperature of the water? I will not deny that the appearance of those dolphins and harbour porpoises demands investigation, just as when about twenty whales were stranded in the Bay of Bengal. The local population tried to rescue as many of the animals as possible, even the individuals Edward Blyth had reserved to kill and stuff. But it is possible to wonder if this action on the part of the local residents was really inspired by a form of 'environmental unconscious', as Ghosh thinks. I can imagine that they saw a sign in the appearance of these incomprehensible animals, but were these people not simply afraid of the vengeance of some God or other, or a satanic being, just as the Kerinci people were afraid of the spirit tigers? The gigantic whales in the Bay of Bengal were stranded by a tidal wave, and the population knew very well how lethal they can be.

In his short story *Leviathan*, the writer P.F. Thomése describes how the local residents reacted to a whale which was stranded on the beach in Noordwijk during a heavy gale in the sixteenth century. In this fictional story the residents want the whale to go away, so that they too can go away. But the whale does not go away. The appearance of the whale is extremely worrying and demands an explanation. Is it a sign from God?

The bowhead whale and the blue whale were nearly extinct and are still seriously endangered species. The symbolic superwhale also has to be saddled with this predicament so that it deserves full protection from whale hunters. Even though the symbolic whale does not really exist, it cannot be allowed to die. It is a sacred animal, and if you save up long enough you can go on a pilgrimage in the hope of seeing one or even touching one. The veneration of the whale has become a form of religion. Kalland objects to this state of affairs, because it leads to unfair treatment of poverty-stricken Norwegian whalers. I do not share these objections – as long as the protection works. As far as I am concerned, those whalers can have life-long pensions. It seems to me that if limited hunting of more common species of whale is permitted, it is likely that whale hunters will lay violent hands on other – endangered – species. Besides, you cannot expect donors who have never seen a whale to study the taxonomy, ecology and specific behaviours of 75 to 80 different species of whale. Of course, I understand Kalland's objections and realize that things could be different, but this seems to me a permissible form of 'wild fiction', in a good cause.

The protection of whales is an ideal cause for politicians and representatives of polluting industries to support. The whales live far away from economically important areas and the whaling industry no longer has much economic importance except in Japan. Kalland pointed out that by supporting the whaling moratorium politicians offend nobody but a few whalers, while it does give them a claim to be environmentally concerned.

Waterton, unlike many present-day politicians, was truly concerned and decided to set up a reserve himself. His first trip to British Guiana in 1812 changed him mentally. In 1813 he was about to join an official expedition to Madagascar, which he expected to win him recognition as a serious naturalist, but he had to cancel it for health reasons. The malaria he had caught in British Guiana nearly cost him his life and it took him years to recover. Apart from the fact that Waterton had seen how spending time in the virgin rainforest broadens the mind, he had also come to admire the lifestyle of the Indians and the slaves who had escaped from the plantations and managed to survive in the forest.

In England Waterton was becoming more and more annoyed about the railways and the innumerable factory chimneys appearing in the landscape. Instead of going to Madagascar, he decided for the time being to devote his energy to Walton Hall. He wanted to turn the property he had inherited into a sanctuary for plants and animals he thought were endangered. A sharp observer, he had noticed long before that the birds, frogs, toads

and all sorts of plant species which had proliferated in his childhood had been greatly reduced in number. He created safe spots and nesting places for owls and kingfishers and was in fact conducting active nature conservation. He wanted his property to be a Catholic oasis in a Protestant desert. This makes it even stranger that he had the badgers and foxes who camped under the roots of the age-old oak trees on his property caught and released in the pastures outside the walls of his paradise. You might expect that he would have wanted to protect at least the opportunistic fox – I believe the fox was a typically Catholic animal according to Reve – but perhaps Waterton was so worried about his beloved birds that he decided to ban this fellow-believer all the same.

Waterton also noticed the disastrous effects of the soda dumped by the soap factory near the property. The water was becoming severely polluted and to his dismay the trees were dying. He protested vehemently against these developments and took legal action against the soap manufacturer which eventually led to the factory being moved elsewhere. Apparently the Protestant judges were open to reason after all. Waterton increasingly withdrew resentfully behind the walls of Walton Hall – not as a noble savage but as an aristocrat ensconced with a few members of his family and his servants in his self-made paradise.

Ghosh began his lecture with a definition of human uniqueness: if there is anything that distinguishes man from animals, it is surely that people experience the world by means of stories. In my lecture I have done something similar, defining man as the only creature on earth that sets up nature reserves. This game of defining the boundary between humans and animals is thousands of years old at least. It has been claimed that man is the only political animal, the only moral animal, the only laughing animal, or the only animal gifted with reason. Or that there was no other animal with a sense of time. Humans were the only creatures that used tools, could think in symbols, had self-awareness, possessed a soul, or were capable of religious experience. The list can be lengthened indefinitely, for example by saying that only man sets up nature reserves or experiences the world by telling stories.

Of course I understand perfectly well what Ghosh means, and it is certainly true that there is no other species in which story-telling, imagination and the ability to reason are so strongly developed as in human beings, but is it not precisely this dualistic view of man and nature which has led to so much trouble? In *The Ape and the Sushi Master* Frans de Waal has shown, in my opinion convincingly, that the differences are in degree and not absolute. But unfortunately man immediately redefines himself as soon as the old dichotomy is no longer adequate and he is in danger of toppling from his self-erected pedestal.

Male chimpanzees interested in power perform actions that look suspiciously like politics. Apes show signs of morality, and facial expressions related to laughter have also been found in apes. The use of tools is more widespread than was ever thought possible, and has even been seen in birds. Dolphins and apes have something that very closely resembles self-awareness; they can recognize themselves in the mirror. Some animals even have a certain sense of time. It is true that animals do not have souls, but neither do we. Some elephants have so much aesthetic sense that they like to paint with their trunks and can even support their keepers on the proceeds of their work, although this is of course no criterion for the creation of good art. (There are also elephants who are good painters but don't sell well). Even the rudiments of what you might call religious experience have been observed in animals, and I do not mean the seventeenth-century horse thought capable of this because it knelt down and stuck out its tongue when offered the host.

The chimpanzee researcher Adriaan Kortlandt apparently once saw the leader of a group of West African chimpanzees enthralled by the setting sun, a phenomenon which rivets the attention because near the equator that gigantic red and yellow ball sinks so rapidly that you can almost follow it with the naked eye. The leader of the group sat down to watch and the other members of the group imitated him. After a while, when the sun had sunk lower but not yet set, the leader got up, turned around and walked away, followed by the rest of the group. Then he stopped and walked back to where he had been sitting

before. The group followed him and together they gazed again in fascination at the setting sun.

I am sure this is not just 'wild fiction' but was really observed by Kortlandt. You almost have to conclude that these chimpanzees were fascinated by a natural phenomenon which has no direct connection with safety, or with the acquisition of food or sex. How many steps is this from a religious experience? It is at least another indication that the difference between animals and humans is not absolute, as was thought for thousands of years – a view reinforced by Cartesian thinking – but one of degree.

The novel is still a suitable literary form in which to write about nature and its possible destruction, but for me it is by no means the only way. Poetry, essays, documentaries (reportages or films) offer different possibilities which the novel does not, or to a lesser degree. Whoever is in favour of having the local population continue to live in nature reserves should, in my opinion, be cautious about emphasizing the uniqueness of man. Before you know it the local residents will be asked to clear out.

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