A Pot-Pourri of Nature
Essays from ECOS 1983-2006

by

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With cartoons by
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Contents

Page

3 The Search for the Countryside (1983)

5 Even More About the Purpose of Nature Conservation (1984)

11 Letter (1982)

13 Alien Or Native (1986)

20 Beyond the Faustian Bargain (1987)

27 Animal Rights (1987) *by Ian S Coghill*

30 Animal (and Other) Rights (1987)

33 The Ecology of Environmentalism: Some Ideas for Discussion (1987)

44 Democracy and Habitat Protection (1989)

49 Wildlife Valuation (1992)

56 25 Years of Change in Wester Ross (1994)

64 Out of Site, Out of Mind? (1996)

69 Wild Land or Wilderness – Is There a Difference? (1996)

82 Political Correctness Strikes Ecology (1996)

85 Scotland: Reviving the Wild (1999)

89 A New Paradigm for the Uplands (2004)

95 Wild Thoughts Followed Up (2004)

99 What is Natural? (2006)

102 What is Natural? A Reply (2006) *by MikeTownsend*

107 Epilogue: Nature and Religion (2007) *[previously unpublished]*

From ECOS 4(3) 1983, p.28

The Search for the Countryside

And having lost yourself in the town you had gone out to search for the countryside, to search for the peace of mind that it could bring. At first you were afraid that the houses had no end, but you held your image of the country in your mind. When, later, you were surrounded by a brown plain of desert without trees you could not say that you had yet arrived, for surely this was no countryside. Maybe you saw the country in the far distance where the land rose in gentle receding ridges, but now you puzzled over who had created this desert, or who had been allowed to do so; and then on your left you saw a large block which rose out of the ground like a tower in the midst of the plain. And as it grew bigger and you went past you could have sworn that you had smelt cattle in the wind as though the block were a barn and this a farm and again you puzzled, for where were the rooks in the trees, where, even, were the trees, and where were the hens on the ground and the lambs round the house? where was the farmhouse? And you went on, imagining a farm, and around you the desert went on. But now the hills increased their size and your hopes arose, for you saw that their slopes were green and you pictured the open land with grass beneath your feet and a wind blowing in your face; you pictured the views down into valleys with stone walls converging onto an old farmhouse, and a copse nearby with the stream winding into the distance and the bigger hills behind where you would only walk with yourself and the wild; but before the hills were reached you stopped for you saw some trees at last, and you went over and saw the sign *Nature Reserve* and you went in, along a path, and were told to go right here and left there, and you queued to see ducks from a shed, and were not allowed into the trees and you went away, knowing you had not left the town. And so you travelled on towards the hills and the land began to rise and

with it rose your hopes, but the hills were all the same, like cliffs separating a plateau desert from a lower emptiness. You passed into trees and trees, and although they were rising with the land, you knew you would not know the top; you had not imagined trees like this, straight and serried and all the rides the same; you felt shut in and you were not yourself, and there in front of you the road went straight. The trees cleared for a while, but seeing all the chairs and the signs you did not stop but went on through the forest. In your mind you had visions of great peaks, mountains through which you passed up to the highest top; and you believed this when there appeared a sudden glimpse above the trees and countryside ahead. And it was true, the trees did end, and there were the mountains with their shadows in a lake; but when you were closer you saw that the lake had a scar all round and one straight edge and boats. And so you went on into the hills, but they were no hills, and you knew you had never left the town. Signs said *Erosion control scheme – keep to the path*, and S*ummit this way. The…Way*; yet you felt you had to reach the top and you marched on with the others all the way, and you queued for the cairn ...

[Author's note 2007. Maybe this is what happens when you see the countryside solely as an economic resource – industrial farming in the lowlands, commercial forestry in the uplands and mountains merely a tourist destination. Perhaps the dominant approach before conservation became more mainstream?]

From ECOS 5(4) 1984, pp.38-41

Even More About the Purpose of Nature Conservation

This essay discusses two topics: the psychological necessity of the natural world for mankind, and the potential of the natural world us a model for a way of life, an ethic.

Mankind's relationship with nature, his parent, has not yet stabilised – he has passed the weaning stage but not yet worked out the correct relationship. In the antedeluvian primitive state, mankind was far too much dominated by his parent to realize his full potential (he may have been content and in tune with nature, as Laurens van der Post would tell us was the case with the Bushmen of Africa, but he missed out on the benefits and creative possibilities of civilization). In the modern world he is still the rebellious child, rejecting his parent as an irrelevancy (this may especially be true in some developing countries where he has only recently been weaned). What is needed is a stable, mature relationship, mankind accepting the need for the natural world while at the same time acknowledging that he has to be independent. If the parent is destroyed then this kind of relationship is impossible, resulting in a loss or perhaps a permanent scar on mankind's personality; in other words, full personal development of the individual will not be possible if most of the natural world is destroyed.

My main thesis is, therefore, that mankind will be better off psychologically if at least some of the natural world is present, or, alternatively, there is a greater probability that an individual will fully develop if in contact at least some of the time with the natural world (natural here being defined as non-artificial).

Personal Development

Most individuals develop as they go through life (the process of

individuation as described by the psychologist Carl Jung), a process which can perhaps be summarized as an increasing of awareness – awareness of oneself, of other people, of other creatures, and of the totality (god?). This can best be summarized by 'Circles of Awareness' (Figure 1).

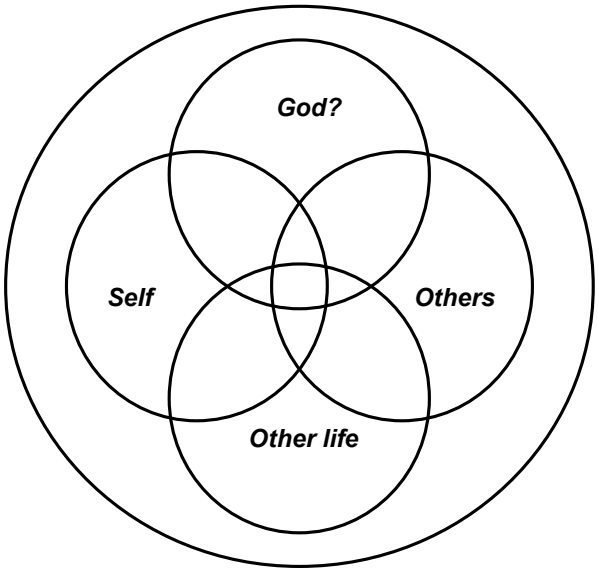


Figure 1. *The Whole or Fully Developed Person*

Awareness of the natural world is, therefore, only a part of personal development but without being fully aware of other living creatures and how the ecosystem functions one cannot be fully aware as an individual – fully develop as an individual. What is the psychological basis for this? A huge subject full of symbolism and difficult to get to grips with.

Wilderness

In the past, in Western culture at least, nature or wilderness has been viewed as a bad thing; Anthony Smith tells us that the word wilderness is used in the Bible 300 times and all its uses are derogatory[1] (but how glad the wilderness must have been to have had such an impact on the human mind! – at least it had always been noticed, lurking in the background as a necessary adjunct to existence). Nowadays many people see it as a good thing. Both

viewpoints are of course correct: to mankind, just coming to terms with himself, the sheer impartiality of nature must seem a savage thing and, as mentioned above, mankind is still trying to break away from nature to establish his independence. In the present age, though, from the security of an armchair what little is left of the natural world can appear as a good thing – a counterbalance to the artificial world. Perhaps it is true that *at times* mankind needs to be in a situation where he is not in charge, in a natural self-functioning system – a humbling experience, perhaps linked in with an empathetic understanding of the collective/ ecosystem unconscious.[2] To quote Page & Warren,[3] "many people must have natural experiences to keep sane in a difficult society." Or perhaps just to know that wilderness exists is enough, as Wallace Stegner has stated: "Wilderness... is important to us... simply because it is there, important to us simply as an idea" (although it is anything but simple).

The Sentimental Approach

A mistake made by many, however, is to suggest that the experience of nature is unequivocally a good thing. For example, Derek Ratcliffe[4] talks about the "aesthetic" aspects, the possibility of "simple enjoyment", and the "civilizing influence" of Nature; Page & Warren[3] talk of the need for a conservation ethic based on the love of nature, and Martin Spray[1] equates psychological well-being with an admiration of nature. Equating Nature with 'good', seeing in nature a force for good, can perhaps be called the sentimental approach (it may be true but paradoxically so is the opposite – see below). It is far too easy to be selective about nature, to only see, admire or enjoy the pretty bits; to forget that carnivores have to eat, that parasites exist, that competition results in the vast majority of God's creatures never having the chance to survive to maturity, that the most defenceless creatures are those most susceptible to predation, that even swifts have fleas. Nature may appear beautiful on the surface but underneath it is all struggle and unrealized

potential as most gene sets never have the chance to reproduce.

The beauty is real (and therefore a force for good), but so is the struggle (nature red in tooth and claw). Thus by being selective, any code of behaviour (ethic) using nature as a model can be justified, whether a Nietzschean approach based on survival of the fittest and no pity for the weaklings or a Zen Buddhist approach of respect for all life.

Holistic and Selective Views of Nature

If nature is to be used as a model for an ethic (one of its main uses according to Page & Warren), or if nature conservation is to be justified on psychological/ethical/religious grounds, then there are two possible approaches.

(1) *A holistic view of nature*, accepting both the 'good' and 'bad' points and emphasizing the need for both. For example, it could be argued that a hated wilderness (as a symbol of wild unkempt nature) is, in psychological terms, as necessary as a loved one; that psychological well-being needs not only lovable things; that one can admire things one dislikes so that an 'admiration of nature' could include an admiration of its cruelty. This view accepts that 'good' must co-exist with 'evil' and both are necessary (this perhaps mirrors Carl Jung's view of God as being a 'totality of opposites').

(2) *A selective view*, admitting that only certain aspects of the natural world are of use in the sense of being a civilizing influence. This involves one in being superior to nature, in mankind saying that he doesn't approve of the cruel bits. For example, it is the common ethic today that virtually all human babies should have the chance to survive to maturity.

In the final analysis both approaches are necessary: one has to accept that psychological well-being needs both the 'good' and the

'bad', but also that the 'good' is better! So, on the one hand we say that we need the wilderness areas where natural processes are paramount, where beauty co-exists with struggle, but on the other hand we feel that an appreciation of its beauty is a civilizing influence.

A Conservation Ethic

Where does this leave the idea of a conservation ethic? Any ethic (code of behaviour) will have to be consciously chosen by each individual and cannot be deduced from a study of nature for, as mentioned above, by being selective any code can be chosen. Thus purely ethical arguments for conservation need to be used with caution. Most useful will be Ratcliffe's *private* conservation ethic as it will give the *individual* strength to promote conservation. Page & Warren, in contrast, state with reference to nature conservation, that "unless we draw on the *collective* strength of our ethical postures we must dismiss them as personal quirks of individual belief". Aside from the fact that only *individual* beliefs are valid, surely the reasons put forward for nature conservation (Ratcliffe's economic, scientific-educational and aesthetic-recreation purposes or Spray's psychological, physiological and ecological well-being) are together enough to justify it without bringing in a new ethic. As attitudes change a consensus conservation may emerge (indeed is emerging, *e.g.* 'native is good'), but unless discovered by the individual himself any ethical system will have been imposed on him and will therefore be dogma.

Conclusions

I draw three conclusions. First, man's relationship with nature has not yet stabilized. Modern man has not yet worked out what place the natural world should hold in his society; indeed, it may take centuries or even millennia to establish this.

Second, the natural world *can* be used to produce ethical paradigms (*i.e.* to provide models for codes of behaviour), but the

particular model has to be consciously chosen by the individual.

Third, there is a greater probability that an individual will travel further along the path of psychological development if in contact some of the time with the natural world. This must be the main reason for nature conservation, all other reasons (economic, ecological, genetic, etc.) probably being merely rationalizations.

References

1. Quoted in Spray, M. (1984) Divergences in conservation. *ECOS* **5**(1), 19-23.
2. Fenton, J. (1982) Letter in *ECOS* **3**(1), 41. [see below]
3. Page, H. & Warren, A. (1982) More about the purpose of nature conservation. *ECOS* **3**(1), 27-29.
4. Ratcliffe, D. (1981) The purpose of nature conservation. *ECOS* **2**(3), 8-13.

[Author's note 2007. Obviously influenced by the writings of CG Jung, and by working as a tutor in personal development courses. I possibly contradict myself in later essays where I argue the need for a new conservation ethic!]

From ECOS 3(1) 1982, p.41

Letter

"The aesthetic value of wildlife is more to do with sensory and emotional appeal..."

"Not only the creatures themselves but also their whole setting is an essential part of this imagery"

"It provides an immaterial resource whose values do not change ..."

"The nature conservation ethic makes for more civilized living ..."

Sir,
In his essay The Purpose of Nature Conservation *(ECOS 2(3) 1981), Derek Ratcliffe makes such statements as those above but does not attempt to analyse* why *they might be true, i.e. why nature conservation is essential. There must be an objective link between Nature and the human psyche for Nature to have the beneficial effect on people that Derek Ratcliffe asserts. What is this link – the collective unconscious? Is there such a thing as an ecosystem psychology? (a balanced ecosystem must be not only ecologically but also psychologically stable, i.e., all living creatures are linked psychologically which would explain the intuitive feeling of many people that* all *species should be conserved).*

If it could be shown that the presence of the natural world is essential *for man's psychic well-being (man, after all, evolved in the natural world, and is man by disposition ever able to live a psychologically stable life in a sterile inner city or modern farm landscape?), then the argument for the conservation of species, habitats and landscapes becomes unassailable.*

Why are there not psychologists working on these lines? More conservationists should ask them to carry out such studies, so that conservationists can in fact justify conservation objectively, i.e., to

show that Derek Ratcliffe's "Man has a duty to Nature" becomes "Nature has a duty to Man". The results might show that if much of the natural world is lost man will remain in a psychotic state for ever. This, surely, would give the fundamental purpose of nature conservation.

Yours, etc.,
James Fenton,

From ECOS 7(2) 1986, pp.20-23

Alien Or Native?

Nowadays many conservationists dislike seeing alien or introduced species of plants and animals in the countryside and there is an increasing tendency for landscape architects and others to insist on native species in planting schemes. This essay takes a deeper look at the native/alien debate.

There I was admiring the beautiful old tree, noting how well it fitted into the landscape and how it improved the appearance of the old farmhouse, when somebody whispered into my ear, "It's a sycamore, an alien species." A shudder immediately ran down my spine: "Ugh! It's horrible, cut it down at once.."

Somebody ignorant of ecology may well appreciate *all* the plants and animals of the countryside – ignorance is bliss. But once you have eaten of the tree of knowledge and know that many species have been introduced by man, are what are termed 'alien species', it is impossible nowadays for an ecologist to remain objective and impartial; you can never be at ease again, especially when you know that all the natural plant communities are disappearing fast. It is now the common conservation ethic that 'Native is Good', 'Alien is Bad'; that introduced species should be removed from nature reserves and any new planting or introductions should only be of native species.

The main thrust of the argument presented here is that ultimately the native/alien debate is an emotional one (which by no means invalidates it) rather than a scientific one; it is that conservationists dream of the preservation or re-creation of completely natural systems untouched by the hands of men or women – a kind of pristine Garden of Eden as it was before the apple was eaten.

Arguments against aliens

Let us first consider the scientific arguments against the introduction of alien species. The main direction of these is that native species have had longer to adapt to the local conditions than the more recently introduced aliens and so they are better suited ecologically and have more species associated with or dependent on them. The arguments can in fact be grouped into four categories:

(1) Alien species will not be as well-adapted to the soil and climate as native species.

(2) Disease and pest resistance – introduced species will have fewer natural immunities.

(3) Introduced species have fewer associated plants and animals and are thus less valuable in nature conservation terms.

(4) Aggressiveness – some introduced species may have no natural predators or competitors and so may spread at the expense of the native species.

To consider each argument in turn: first, the argument that aliens will be less well adapted to local environmental conditions. There is no reason why this should always be true – it is quite possible that a species that has evolved in another part of the world with a similar climate could be *better* adapted than a native species. This could arise either through chance evolutionary factors or through greater selection pressure associated with competition from a larger number of species. For example the British Isles are relatively species-poor (because of removal of species during the ice age and the subsequent barrier to recolonization caused by Britain separating from Europe), and thus species which have had to compete with a greater number of species in, say, North America may be better adapted to UK conditions than the native species. Sitka spruce may be such an example

The second argument, that alien species are liable to be

susceptible to disease because they have few natural immunities is not always true; indeed sometimes the opposite may be true, for an introduced species may have no natural enemies and therefore flourish. *Rhododendron ponticum* in Britain and the water hyacinth in the tropics are good examples of this.

The above two arguments are mainly used when discussing the relative benefits of alien or native species for farming or forestry. It is the next two arguments that conservationists often call upon to justify exclusion of alien species.

The problem with ecological arguments is that they tend to rely on 'statistical truths', that they will only be true for a proportion of the cases, for example 80 per cent true. Thus the statement that 'alien plants have fewer associated species than native plants' is not strictly true; some native species, yew or bracken for example, support fewer species than many aliens. Similarly, the argument that introduced species tend to be more aggressive is not always true: certainly some may outcompete the native species (grey squirrels may be an example of this), or fill an empty ecological niche (for example rabbits), but there are many less successful aliens.

Thus the scientific arguments 1-4 above may often be valid arguments against the introduction of alien species; but they are by no means generally true, and none may apply to some aliens. Does this mean, then, that aliens 'equal to' or 'better than' native species should be allowed or introduced, or be retained in nature reserves? For example, what harmful effects do the ivy-leaved toadflax or New Zealand willowherb have? Indeed, do these plants not increase the diversity of the ecosystem and therefore become useful in nature conservation terms? Of course it may be best to play safe – to discourage introductions in case of harmful effects – but for some established species, what harm are they doing?

Then there is the whole time factor argument: surely a species that has been here over 500 or perhaps a thousand years could to all intents and purposes be classed as native? The strictest definition of native is 'any species that would not *now* be here if man had not

introduced it. But some species *used* to be here (for example there is a record of *Rhododendron ponticum* in Ireland in a previous interglacial period), and many species did not get to Britain after the Ice Age before it became an island purely as a matter of chance – Norway Spruce, for example. Thus Britain has a relatively impoverished flora and fauna and it could be argued that introducing some European species would help to increase the diversity of Britain's wildlife.

But no; to many conservationists the introduction of any alien species is an anathema. This is because at the end of the day the scientific reasons put forward against aliens are not the *real* reasons; and, as suggested above, they are not strong enough to justify exclusion of all aliens. It is the *concept* 'alien' – or rather 'non-natural' – that is the real reason that introductions are disliked. The scientific reasons put forward are merely *post hoc* rationalizations, that is attempts to justify a non-rational belief.

Symbols

If the scientific arguments against introductions are at times suspect, why do some conservationists feel so strongly about introductions? Why do they so dislike alien species? It is, perhaps, for the same reason that they want to preserve examples of all *natural* communities. Conservationists have a vision, perhaps unconscious in some, of the perfect natural world – the world as it was before man came along everything, in its correct place, fitting in with the natural order of things – Eden before the Fall. Alien species symbolize interference by man.

Perhaps dislike of alien species is indeed similar to racial discrimination – wanting to preserve the culture and genetic integrity of one's own stock (a natural human failing). Alien species are welcome in strictly defined areas (gardens) or where economically useful (crops) but must not be allowed to pollute the native culture (the wider countryside).

Take the case of conifers, for instance, especially alien

plantation species of which Sitka spruce is the prime example. Why are these species so much disliked by British conservationists? Perhaps one reason is that they do not like to see their country covered by this dark alien horde, as opposed to the lighter, more airy native deciduous species. Endless conifers, in Europe at least, have always had a perhaps depressing impact on the human psyche – consider for example the dark, foreboding mythologies of Scandinavia or the music Tapiola by Sibelius; the forests symbolize dark, unchanging forces leaving man small, insignificant and powerless. It is probably the more subtle reasons such as these, often involving an element of symbolism, that are the main 'behind-the-scenes' influences affecting one's views, rather than the at times spurious scientific arguments. For example, conservationists are always trying to prove that conifers support fewer species than other vegetation: trying in other words to justify their belief.

One example that illustrates how difficult is the whole debate about conifers is the story of the conservationist who was showing his Canadian friends around the Lake District; he was in the middle of telling his friends how horrible the alien conifers were around Thirlemere when they interrupted: "They are the best bit of the Lake District we have seen so far – they remind us of home".

Time factors

In the past there have been large-scale natural introductions with major impacts on the native species, for example when North and South America collided and a land bridge formed enabling species to migrate from north to south; there have also been chance introductions, for example the colonization of islands. It is sometimes argued that introductions by man are a similar *natural* event. This, in fact, is not a valid argument if one says that to have any meaning at all the word *natural* must be defined as 'non-artificial', *i.e.* uninfluenced by man. Thus, although introductions by man are indisputably an event the whole argument centres on the question: "Are they events that we agree with?" Ultimately the

whole native/alien debate comes down to a value judgement. Do we think that 'pollution' of natural ecosystems by introduced aliens a good or bad thing? As stated above, there *are* times when ecological criteria suggest a particular introduction may be harmful *(e.g.* the invasion of the water hyacinth) but often there are no clear-cut scientific arguments either way *(e.g.* ivy-leaved toadflax). Ultimately, whether these non-invasive introduced species should be allowed to stay depends on a value judgement: do they enrich the community by adding to the diversity of the system? or do they destroy the naturalness of the system?

There are two further problems encountered by conservationists employing a strict 'no aliens' policy: firstly, at what level do you work? For example, beech trees are native to Britain, but only in the south of England. However, beech trees have been extensively planted in the North; and it is impossible to say whether or not in time they would have reached Scotland naturally. Do you therefore plant beech in Scotland? If so, over the whole country? Strict conservationists insist that introductions should only be of native species grown from local native stock, but in practice it might be impossible to determine if a given species used to occur in an area, or there might be no native stock remaining.

The second problem concerns the re-introduction of animals now extinct in Britain, such as beavers and wolves – *i.e.* species made extinct by man. The re-introduction of sea eagles by the Nature Conservancy Council, for example, has raised certain controversy. The truth is that man has so altered British ecosystems that most natural systems can only be re-created by an interventionist policy. Once set up they may become self sustaining but society as a whole has to decide what degree of naturalness is wanted. It will never be possible to know how closely such re-created systems would mirror what the countryside would have been like if man had not arrived on the scene.

It is my opinion, and perhaps also the unconscious opinion of many naturalists, that the concept of 'naturalness' is a very powerful

image for the human psyche, and the crux of the argument is that the existence of 'natural areas' where mankind has minimal influence is a necessary counter-balance to the all-pervading artificial world. This is perhaps the real reason why alien species are disliked – they symbolize man's intrusion into the natural world very little of which is now left. The scientific/ecological arguments are attempts to rationalize this emotional feeling for naturalness. It could be argued that because man evolved in the natural world, the presence of natural areas is essential for psychic wellbeing and therefore the need for areas without alien species is understandable and rational.

Maybe it is time for conservationists to use less (spurious) science and more emotion in order to win converts to their cause. After all the real reasons why conservationists believe in their cause are not the scientific ones...

[Author's note 2007. I would now argue that the alien/native debate is about conserving biodiversity, i.e. *conserving the ecological distinctiveness of each part of the planet – the indigenous plants and animals of each area. Moving species around, as well as resulting in an overall loss of species, will result in a trend towards global homogeneity, a loss of naturally-derived landscapes. Whether, and why, this matters, is a topic touched on in many of these essays.]*

From ECOS 8(1) 1987, pp.27-29

Beyond the Faustian Bargain

> As any change must begin somewhere, it is the single individual who will experience it and carry it through... Nobody can afford to look round and to wait for somebody else to do what he is loath to do himself. But since nobody seems to know what to do, it might be worthwhile for each of us to ask himself whether by any chance his or her unconscious may know something that will help us. Certainly the conscious mind seems unable to do anything useful in this respect. Man today is painfully aware of the fact that neither his great religions nor his various philosophies seem to provide him with those powerful animating ideas that would give him the security he needs in face of the present conditions of the world...
>
> C.G. Jung (1964) *Man and his Symbols*

THE FAUSTIAN BARGAIN

A Fable

Man was walking through the forest, dejected; the rain was dripping off the trees, and there, dry, neatly dressed and under a smart umbrella, stood the devil.

"This is a beautiful forest, is it not?" said the devil.

"No," mumbled man, for man was startled.

"I have already seen more than forty types of tree, a host of animals and an abundance of glorious flowers."

"It is wet," grumbled man, pulling his skins over his clothes and shivering slightly.

"And so much beauty."

"Ugh"; man shivered again, and glanced furtively once more at the appearance before him.

"Have a sandwich," the devil was saying, offering a handful of

neatly cut sandwiches. Man cringed his way up to this offering, his hands shot out and the sandwiches were snatched.

"This is good," said man, the first smile on his lips, before swallowing all like a dog, "This is good"....

Man was fed now, having eaten of undreamed of flavours, and now the devil was miraculously pouring a hot drink out of a flask into a perfectly round and symmetrical cup: man watched, wide-eyed with wonder....

The devil was now lighting a small fire, having produced flames apparently from nowhere; man had run away at first, and then crept up and noticed the warmth. Now man was smiling, thinking how superior he was to all the beasts in the forest who were afraid to come out....

The devil was talking again: "All this I will give to you, and more." "For nothing?" queried the man. "For nothing *you* need worry about," replied the devil; "I will send the bill to your children, they may become lonely...".

But man had stopped listening – was dreaming of being smartly dressed like the devil, of eating luxurious foods inside a warm and dry house: "Of course I will accept, of course…" Without stopping to think, man just sold his soul to the devil…

Man's children were sitting in their warm house watching television when their electricity bill came through. "God! How are we going to afford this?" said the father…

The argument was taking place in learned circles: "We have a choice of either polluting the ground with waste for 25 000 years, or of changing the whole climate of the earth; which is the better option?"…

The Way Forward

The old anthropocentric viewpoint needs (is) shifting, shifting:

Old hierarchy

GOD

MAN

ANIMALS: Mammals
Others

PLANTS

↑

Man dominant over beasts

New arrangement

LIFE [God]

MAN—ANIMALS—PLANTS

↑

Every organism equal right to existence

The greatest bit of good news last year was this headline:

> Housing Development Plans Delayed Because of Presence of Crested Newts

If the anthropocentric viewpoint is the old position, then the new view, the new ethic, is:

> Every species, and individual of that species, has an *equal* right to existence as man; and a right to a natural life.

Animal rights groups are, therefore, perhaps the dynamic leading edge of the new ethic. There are also other signs of changes; for example:

- total protection of bats;
- total protection (in theory) of many other species;
- new attitudes to zoos;
- battery farming systems beginning to be replaced in some countries.

A non-anthropocentric view of the world leads to a more objective view of the world:

> If the world is viewed through the eyes of a dog, frog, scorpion, badger, seagull, buttercup, etc., as well as the eyes of man, then a more objective, more humble, less arrogant and more balanced view of the world is achieved; and habitats will be appreciated.

If it is realized that other species have validity equal to man's (!), then habitats will be conserved and created, as it is the only practical way to enable all species to exist.

This new ethic will not be based on *love* of nature ("Nature will only be saved if man loves it") but on *rights* – the rights of other living beings. Man cannot love all nature – it is too abstract and all embracing: he can certainly love bits of if (*e.g.* pandas and sunny days) but will hate other bits (*e.g.* scorpions and dreich days).[1]

> Given the right of every species, and individual of that species, to exist (but subject to normal biological laws), mankind will ensure that, liking them or not, there is at least a space for them to exist: whether spiders, mites, worms, millipedes, mosses, or liverworts (parasites will always be problematical, but all ethical systems contain paradoxes which help keep their vitality).

"Toad! You've been reading James Fenton again…"

Rationale of the new ethic

The concept of the 'rights' of other species is not based on scientific reasons (gene pools, ecological sustainability), but its justification must be that it produces an ethic that works. It is to do with mankind's kinship – shared with all life forms – the unbroken chain of life to every living being, with extinction meaning that that particular approach is permanently lost. It is based on the premise that life itself is fragile, with most of the universe being unsympathetic to it.

Cynics may argue that all life is doomed, when the sun eventually blows up, but this misses the point: only the present is important, only the present can have any validity to a living being.

> The view of the 'intrinsic value of all life forms' is not a new one (here it is perhaps not quite the same as 'the sanctity of life', for it has to allow for death in the natural process of population control??); it is based on feeling, not thought. It can provide an ethic that appears to work and produces strong feelings (*e.g.* animal liberation groups, Save the Whale, etc.) – a

sure sign of the potency of the concept. And its time appears about right – the concept of rights, minority rights, etc. is in tune with our time.

It is hard to forecast how such a shift in the anthropocentric emphasis will change society's structure in the future, and probably also a fruitless exercise (working towards Utopias can be a dangerous operation – see Karl Popper's writings on this: it is best to react to existing faults in the system on an *ad hoc* basis, than to have grandiose plans for the future).

There are, however, many things that an individual can do to encourage the new ethic: things that are already being done by some people; for example:

- create habitats, protect habitats;
- ensure decent lives for domesticated animals;
- speak up for species; get maximum species protection;
- aim for strict planning controls;
- argue the case for nature conservation – not from man's viewpoint, but other species'; *e.g.* argue that nature reserves are for nature, not people; argue that a bog should not be drained; not for scientific reasons, but because *Sphagnum imbricatum* has as much right to existence as you or I;
- show as many people as possible the world through other species' eyes; *e.g.* the acclimatization approach to environmental education.

Heresy

The argument that there is no time for conservation, that people come first, is perhaps the main heresy current in the world today; it apparently presupposes the eventual coming of some golden age when we can all sit back, fully clothed, fed and watered, and have time to concentrate on such side issues as nature conservation. Unfortunately, when this time comes, if it ever does, there will be little left on this planet.

Thus other species are equally as important as mankind, and have to be conserved along with him, the new ethic will mean that decisions have to be taken to conserve species at the expense of mankind's material wellbeing

'Little' things, such as the creation of ponds, should not be disparaged: it is a sign that newts and lesser waterboatmen are important. If you manage to get, say, a bank manager to wonder at a pond and how its whole system carries on irrespective of what men are doing in the world above; to realise that waterboatmen care not what men are doing, that things do work without mankind's intervention; if you manage to shift his perspective just a bit, to use the pond for a more objective view of the world; then this is a start.

A pond and its life may appear small and insignificant, but it is the key to the way forward.

Note

1. See Fenton, J. (1985) Even more about the purpose of nature conservation. *ECOS* **5**(4), 38-41.

[Author's note 2007. I had probably just discovered Deep Ecology when I wrote this! In the fable, there is a third option I had not realised at the time: in addition to the choices of leaving nuclear waste for future generations or of leaving a legacy of global warming, there is a third option of developing all the wilder areas in order to extract every last kilowatt from natural energy flows.

The phrase in the essay 'animal rights groups are perhaps the leading edge of the new ethic' has always worried me – as I do not want to be associated in any way with the tactics used by some of these groups.]

Correspondence resulting from above essay:

From ECOS 8(2) 1987, pp.45-6

Animal Rights

Dear Sir,
James Fenton (ECOS 8(1)) put the case for the incorporation of animal and plant rights into the concept of conservation as well as I have ever seen it put. Nevertheless he was still utterly wrong. The idea that animals, and even plants, have rights equal to those of human beings – or as he puts it 'every organism's equal right to existence' – is in my view both ridiculous and dangerous. Let me explain why.

Moral codes have traditionally been based on what is perceived to be some form of divine revelation and/or some practical biological need. For example, murder taboos are virtually universal, make sound biological and social sense, and are usually conveniently supported by divine revelation. There are no sound biological or evolutionary grounds for suggesting that animal and plant species other than our own should be accorded rights by human beings; indeed quite the contrary is true. Nor is there any divine revelation which supports giving animals and plants rights. Christ, after all, drowned the Gadarene Swine and assisted in catching the Mighty Draft of Fishes, so he can hardly be portrayed as a supporter of animals rights let alone rights for plants.

If the sources of these sought-after rights are not the traditional ones where are their roots to be found? The likeliest explanation is the need felt by some humans for an ethical background for their desires and prejudices. Personally, my selfish desire not to see riverbanks laid bare by the Severn-Trent Water Authority is sufficient in itself to sustain me; and I am prepared to fight for what I want on the basis of practical science, profit and loss, and the highly subjective but extremely deferrable position that I don't want

things I love damaged. I do not feel the need to manufacture a new morality which enables me to portray my opponents as being in league with the forces of darkness. Conversely, it is obvious that others cannot be happy in the absence of an ethical safety net.

Mr Fenton's stated explanation for the existence of the new moral code is "to do with mankind's kinship – shared with all life forms – the unbroken chain of life to every living being". If man should not abuse a deer's right to life because we are kin, why should our kin the stoat abuse a rabbit's right to life? If we are all kin, why should we uniquely stop behaving naturally (as I call it), and start behaving as though we were not the centre of our own universe?

Mr Fenton makes it clear that our traditional anthropocentric ways are, in his opinion, wrong and must change. In this, he destroys his route to a new morality. None of our kin in the rest of creation would consider such a proposal for an instant. Foxes are and must always be vulpocentric, otters are lutocentric, and primroses are presumably primulocentric. Each species is the centre of its own universe. To suggest that humans should uniquely relinquish their own evolved conception of their universe demonstrates not kinship, but an unpleasant tendency to patronize other life forms.

To quote Mr Fenton: the proposed new ethic on which conservationists should work is that "every species, and individual of that species, has an equal right to existence as man; and a right to natural life".

At first sight this appears ridiculous but it gets much worse on closer examination. Taken literally (and there is no other way), this can only mean that an individual brown rat and an individual cabbage both have the same right to their individual existence as does Mr Fenton. From this we can only presume that Mr Fenton subsists entirely on fruit and carrion – the only foods available without infringing the rights he exhorts us to respect.

Furthermore, his proposed ethic must also mean that killing a

rabbit is on the same ethical plane as killing a self-employed ecologist. Neither of these conclusions bothers me unduly insofar as they apply to self-employed ecologists; but I would imagine that most reasonable and normally adjusted human beings will be both shocked and offended at the suggestion that their lives and the lives of their children are worthy of no more consideration than a clump of Sphagnum imbricatum.

A good test of any moral code is: "Will it work if everybody does it?" This test, "Thou shall not commit murder", or "Thou shall not steal", passed with flying colours. How does Mr Fenton's ethic fare?

For the general public, not at all. The most fundamental right, without which no other rights have any meaning, is the right to life. Being eaten is about as profound an infringement of your rights as can be imagined. Yet it happens to over a million chickens every day in the UK, not to mention hundreds of thousands of sheep, pigs and cattle. Heaven knows how many plants with "an equal right to existence" disappear down our throats per annum, *but it must run into billions. Clearly the new ethic has a little way to go.*

From the more restricted viewpoint of the conservationist, what effect would the 'new ethic' have? Unfortunately, for Mr. Fenton's ethic, the successful conservation of living things is not in practice about rights and blanket preservation. It is about value judgements and management. Without meat there are no meadows. Every practising conservationist is constantly faced with practical choices as to which species to support and which to suppress.

If we followed the new ethic, it would, for instance, be 'wrong' to replace an obviously ill-conceived stand of exotic conifers with a plantation of mixed indigenous hardwoods, because we would be infringing the rights of the individual trees concerned, each of which "has an equal right to existence as man". Nothing could be more ludicrous.

Those who seek to conserve our damaged and beleaguered natural resources have a difficult enough task without hanging the

albatross of animal rights (or, Heaven help us, 'plant rights') round their necks. Animals and plants are worth defending as species; they obviously deserve, as species, what can crudely be described as a right to exist. As individuals they can have no such rights.

We are not gods. We are human beings working in an unsympathetic world to save what we can of what we love. Telling people that a clump of Sphagnum *moss has as much right to life as they have is as good a way of putting the conservation clock back twenty years as can be devised by the wit of man.*

Yours faithfully'
Ian S. Coghill
Halesowen

From ECOS 8(3) 1987, pp.45-46

Animal (and Other) Rights

Dear Editor,
A reply to Ian Coghill's letter in ECOS *8(2): this is a large subject, and I can't answer all his points in this one letter.*

Most of what he says is logically true if you accept his a priori *statement/belief, which he himself states as "The most fundamental right, without which no other rights can have any meaning, is the right to life". Unfortunately the world is not quite so simple, for it is a fundamental biological law of nature (like it or not) that* all *the young of a species* must *not survive. It was Gary Snyder who provided me with this insight, and to quote him: "Millions of grains of grass-seed to become flour, millions of codfish fry that will never – and* must *never – grow to maturity: sacrifices to the food chain". (This quote is taken from Gary Snyder's notes to his poem 'Song of the Taste', and quoted in the book* Deep Ecology – living as if

Nature mattered *by Devall & Sessions; I would recommend anyone to read the poem and commentary [pages 12 and 13 of* Deep Ecology*] for an analysis of the paradox of respecting the 'sanctity of life' while at the same time 'eating it'.*

Put in a human context, all the potential young of humans must not survive; happily humans can get round this problem using contraception – contraception has taken the place of (essential) natural infant mortality.

Eating invariably means taking life: Gary Snyder would argue that all eating is a sacrament, and our respect for the devoured being be shown by saying grace beforehand. This can be expanded into a general principle: before the (necessary) destruction of any habitat or species you should say a prayer for the loss you will be imposing. This, of course, was the practice in certain primitive cultures.

In this particular instance I will put forward the extreme viewpoint that it makes no difference whether what you eat or destroy is plant or animal. Ian Coghill says in his letter: "Most human beings will be both shocked and offended at the suggestion that their lives are worthy of no more than the life of a clump of Sphagnum imbricatum" *– I would be more positive and put it the other way around and say "worth as much as". Why would humans be offended by this – are they arrogant ? Arrogance is perhaps the greatest sin. If, when looking around the world today, I saw more evidence that the man-centred ethic of the world was working I would be more convinced of Ian Coghill's arguments.*

Later he says "animals and plants are worth defending as species"; but, on his ethic, Why? What on earth is the use of a clump of moss?

A final point: how you put across your message is as important as the content. Telling someone that they were important as a clump of moss is the last thing I would tell them – people have to be led more gently than this. It would be an insight characteristic of a later stage of that person's personal development.

“What me? As important as that lump of moss? Tell me another!”

Yours faithfully

James Fenton

From ECOS 8(4) 1987, pp.28-33

The Ecology of Environmentalism: Some Ideas for Discussion

Any human society needs to have an ethical system giving the rules that govern:

- our relationships with other humans (Rule 1: *intraspecific relations*); this determines how we treat each other, *e.g.* do or do not kill, use violence, look after young, etc…
- our relationships with other species (Rule 2*: interspecific relations*); rule 2 determines how we treat other species, *e.g.* dominate/exploit them, treat as equals, etc…

The rules are generally determined by the religious culture in which we live (*e.g.* Islam, Christianity, Western Materialism, etc.), and most of the emphasis, not surprisingly, tends to be on Rule 1.

There are two approaches to Rule 2:

- an a*nthropocentric* (man-centred) ethic;
- a *biocentric* (nature-centred) ethic.

Western society has tended to be biased towards the anthropocentric approach – man is the 'central being' above all other creation; this has resulted in an exploitative/destructive approach to nature. However, the science of ecology is (re-)teaching us our dependence on nature, and has created (coincided with) the rise of 'western environmentalism'. At heart, the environmental debate is all about the conflict between the anthropocentric approach and the biocentric approach – the idea that nature has 'inherent worth'.

Ecology

Ecology as a science looks at the interrelationships between life and the environment – the links between plants, animals, soils, and

climate. It helps us unravel what are only now being seen as the incredibly complex links within ecosystems. For example it can show how, by turning on an electric heater in any home or driving my car, I help cause avalanches in Switzerland and also contribute to climatic change.

If all the impacts of our lifestyle are put together (acid rain, nuclear waste, rainforest destruction, water and soil pollution, loss of habitat and species, soil erosion, and so on), it can be seen what a major impact our lifestyle is having on the planet. As the revolutionary would say 'we are all guilty'.

Aware, therefore, that things cannot go on indefinitely the way they do now, many people are beginning to question the whole basis of our attitudes and lifestyles and our effect on the planet: people are realizing that in order to stop acid rain, or the carbon dioxide 'greenhouse effect', tinkering with details will only be a stop-gap measure – ultimately, to solve these and the many other problems, lifestyles and world views will have to change. Deeper and deeper questions are being asked about nature and our relationship to it.

Deep Ecology

The Norwegian philosopher Arne Naess is one of the many people who have been asking such questions; and in so doing, in 1973, coined the term 'deep ecology':

> The essence of deep ecology is to keep asking more searching questions about human life, society and Nature as in the Western philosophical tradition of Socrates.[1]

All questionings have to end somewhere, have to end with fundamental tenets which are *a priori*, *i.e.* which have to be taken on trust as true. What is the minimum number of these tenets needed, in which rational, scientific, western man can believe (*i.e.* which 'ring true'), and which encompass all the modern liberal ideals – individual freedom, equality of opportunity, a caring society (Rule 1) but also respect for nature (Rule 2)? Arne Naess has come up

with two basic tenets, or 'intuitions' as he calls them:

- *self realization* – the real work of becoming a whole person,[2]

but within a context of

- *biocentric* equality – the basic intuition that all organisms and entities in the ecosphere, as part of the inter-related whole, are equal in intrinsic worth.[2]

These two basic 'intuitions', also called 'ultimate norms', can be used on their own, or within the framework of a person's own 'religion' – deep ecology is eclectic, not dogmatic. They are the minimum necessary beliefs from which an ethical system, world view, and way of life can be built up (in the same way that Christians could argue that all of Christianity can be based on Christ's two commandments).

The first intuition, *self-realization,* is one that most people would subscribe to – the 'right' of every individual to grow and develop according to his or her own true self; hence the need for a caring society, a society where this is possible. But this first intuition has to be considered in the light of the second, *biocentric equality,* the right of every species – not just our own – to self-realization. This, in fact, is only taking to its logical conclusion what the nature conservation movement has been saying for some time; other animals and plants have a 'right' to exist and so have to be conserved. But this argument, that species merely 'have a right to exist' does not go far enough, otherwise, where possible, why not keep all species in zoos? Compromises will be the rule and nature will be restricted to packaged reserves, with their boundaries always being eaten into.

Deep ecology is, however, uncompromising – nature is *not* a resource to be managed and exploited by humans, but has a right to exist on its own without interference from man. Hence, one of the strongest points of deep ecology is the *absolute necessity* of preserving all the remaining natural areas of wilderness.

The proposers of deep ecology, Arne Naess and George Sessions, have articulated eight basic principles which can be logically derived from the two ultimate norms and which should govern our lifestyles and worldviews.[3] Basically deep ecology is saying that we have lost contact with nature; but there are many philosophies, traditions, and cultures, both past and present, eastern, western and 'primitive', that we can draw upon to help us find our way back. Working from the two ultimate norms of self-realization and biocentric equality, deep ecology challenges everyone to look at the world from a new perspective, and to analyze their own attitudes and lifestyles in relation to this perspective. In providing a firm foundation for belief, a house built upon rock and not sand, it gives one hope that the world can be changed, that both the environmental and social problems can be solved.

Communication

Deep ecologists would argue that most nature conservationists are arguing their case from a philosophical base different from that of their opponents – their opponents are arguing from an anthropocentric viewpoint, while conservationists (often unconsciously) argue from a more biocentric standpoint. It would appear, unfortunately, that conflict is inevitable.

A conservationist, deep down, may want to conserve a species because he or she believes that that species has inherent value (a biocentric viewpoint); in practice, however, he will tend to justify its conservation to others in anthropocentric terms – giving scientific and utilitarian arguments for its conservation. Although this may be necessary at times, every conservationist should be able to answer for him or herself the following questions:

- Do I use anthropocentric arguments for conservation because I honestly believe in them?
- Or is it because I am afraid to use what will be seen as non-scientific arguments?

- Or do I consciously use the same language as my opponents in order to communicate my message – a pragmatic approach?

The anthropocentric *versus* biocentric worldviews of land-use managers and environmentalists generally mean that they share little common ground and, as a result, they talk past each other. The basic philosophical differences tend to be obscured or deflected into discussions of technical issues; *e.g.* those who oppose aerial spraying of herbicides are trapped into arguing over research data of very technical studies of dispersion rates.[4]

Levels of Communication

In the conservation debate individuals are often arguing on different levels of communication. To communicate effectively, both sides must be on the same level. Figure 1 shows a model illustrating the content and quality of communication between individuals. As openness, trust, and objectivity increase between individuals as you get to know someone better, so also does the level of communication increase – people find it easiest talking to someone on the same level as themselves; the further apart you are the more difficult it is to communicate. Figure 1 also illustrates how people talking about nature conservation can be on different levels.

Levels of Concern for Nature

In the same way that communication can be at different levels, the 'level of concern for nature' of an individual can be at different levels. Figure 2 illustrates the different levels of concern that are possible, starting from an anthropocentric viewpoint at the bottom to a more universal concern at the top.

As well as reflecting the increasing 'awareness of nature' of an individual, the movement from top to bottom also reflects the history of the conservation movement.

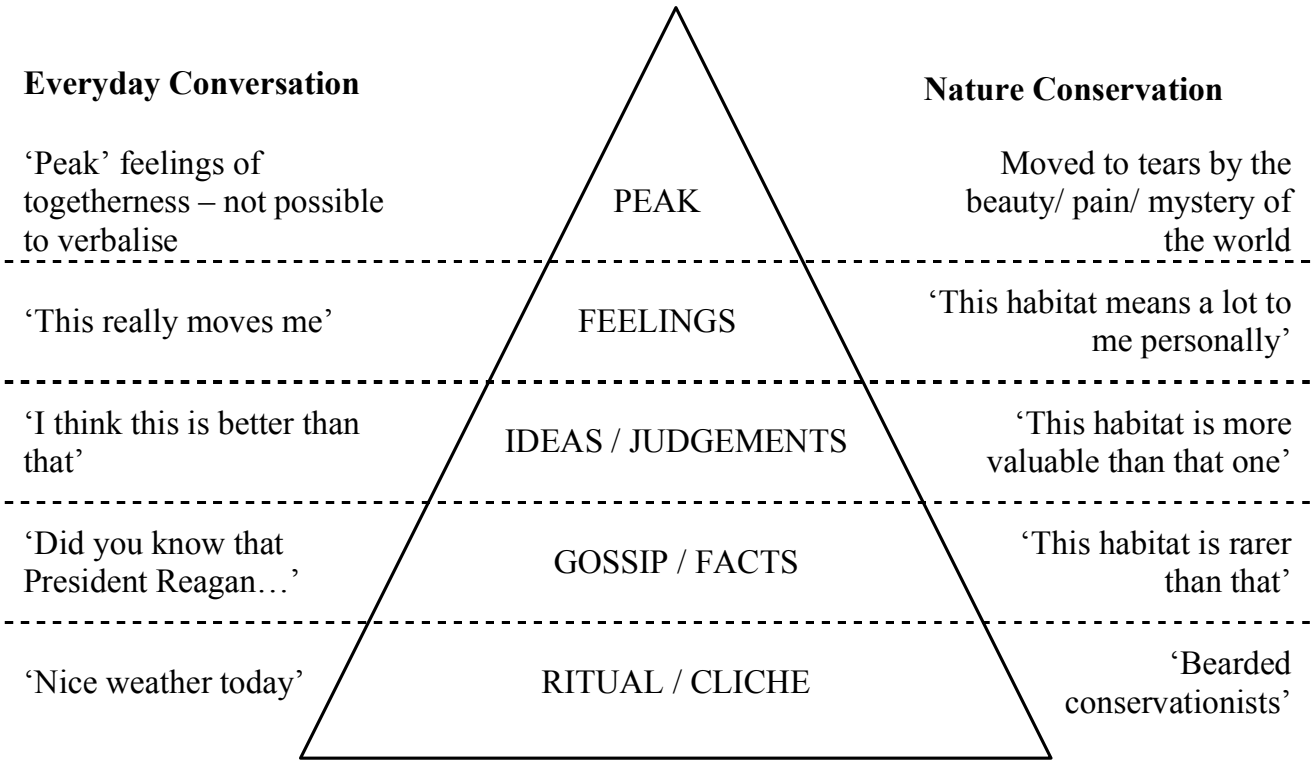


Figure 1. *Levels of communication in conservation between individuals; each level represents acceptance of greater inter-personal risk taking.'*

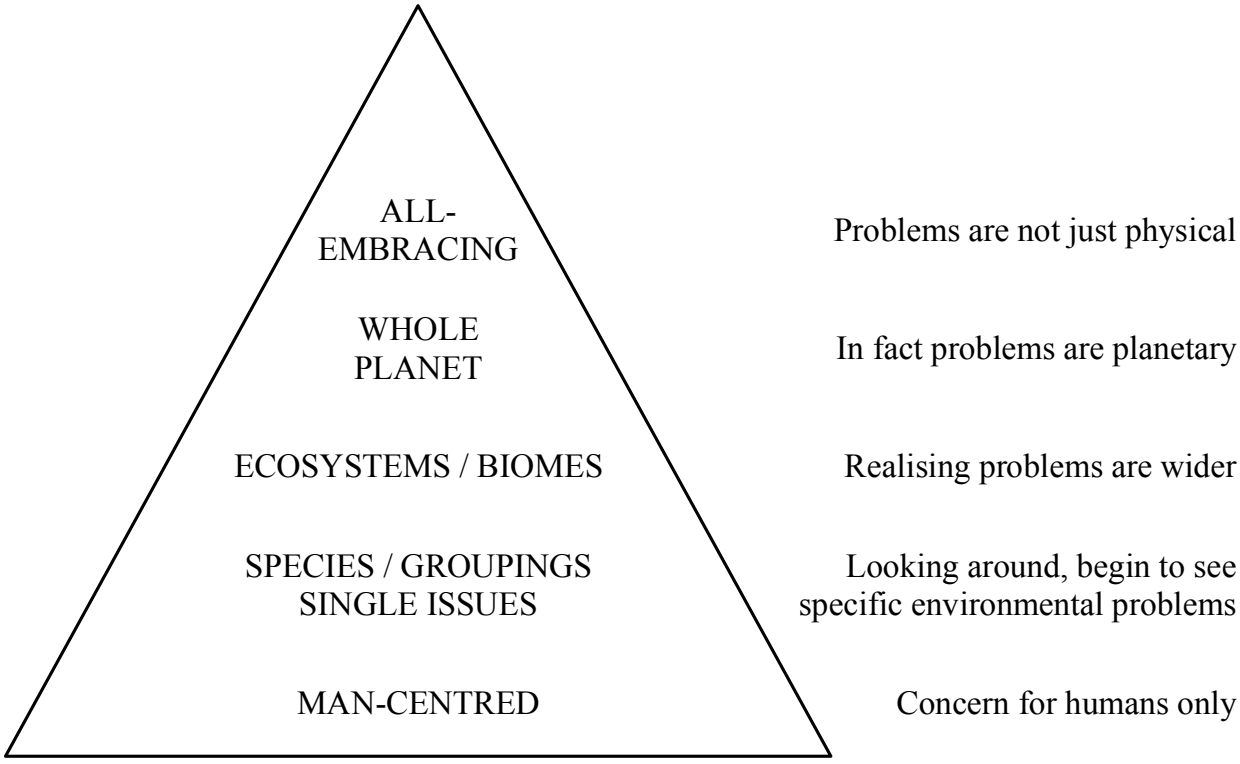


Figure 2. *Levels of concern for nature.*

The Ecology of Environmental Organizations

Many different organizations are concerned with our interaction with the natural environment. Taking the Highlands of Scotland as an example, Figure 3 identifies some of these. These organizations can be classified in various ways, for example by aim, structure or role. Figure 4 shows some of the classifications possible.

It is an interesting intellectual exercise to place these many environmental organizations (not necessarily the individuals within them) at the level they are working at, whether at the communications level (with respect to nature) (Figure 1) or 'concern for nature' level (Figure 2). In fact there is possibly some correspondence between the two (Figure 5).

It should be stressed that this classification is not judgemental – each level has its value, and specialists in each field are needed. However, as one moves upwards the all-importance, or relative value, of that particular level will diminish. Of course the boundaries are not sharp and there are problems: for example, forestry organizations – are they more interested in trees (2nd level) or the revenue from trees (bottom level)? Is the RSPB more interested in birds (2nd level) or is it moving towards a more general concern for habitat (3rd level)? Similarly the World Wildlife Fund: is it concerned with specific species, ecosystems, or the whole planet, or, after the Assisi conference, the more spiritual dimensions? And what about animal rights groups – strong emotional commitment, but to a single issue (or perhaps animal rights is not a single issue at all?).

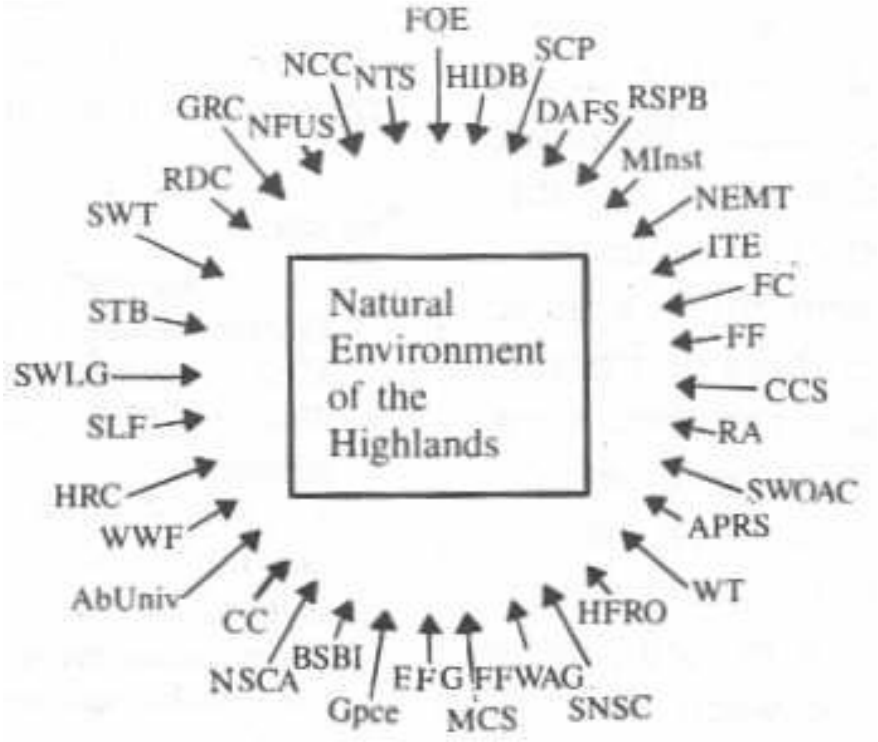


Figure 3. *Many of the organisations that interact with the natural environment of the Highlands.*

Explanation of Acronyms

AbUniv – Aberdeen University; APRS – Association for the Preservation of Rural Scotland; BSBI – Botanical Society of the British Isles; CC – Crofters Commission; CCS – Countryside Commission for Scotland; DAFS – Department of Agriculture and Fisheries for Scotland; EFG – Economic Forestry Group; FC – Forestry Commission; FF – Fountain Forestry; FFWAG – Farming Forestry and Wildlife Advisory Group; FOE – Friends of the Earth; Gpce – Greenpeace; GRC – Grampian Regional Council; HFRO – Hill Farming Research Organization; HIDE – Highlands and Islands Development Board; HRC – Highland Regional Council; ITE – Institute of Terrestrial Ecology; MCS – Mountaineering Council of Scotland; MInst – Macaulay Institute; NCC – Nature Conservancy Council; NEMT -North East Mountain Trust; NFUS – National Farmers Union of Scotland; NSCA – North of Scotland College of Agriculture; NTS – National Trust for Scotland; RA – Ramblers Association; RDC – Red Deer Commission; RSPB – Royal Society for the Protection of Birds; SCP – Scottish Conservation Projects; SLF – Scottish Landowners Federation; SNSC – Scottish National Ski Council; STB – Scottish Tourist Board; SWOA – Scottish Woodland Owners Association; SWLG – Scottish Wildland Group; SWT – Scottish Wildlife Trust; WT – Woodland Trust; WWF – World Wildlife Fund.

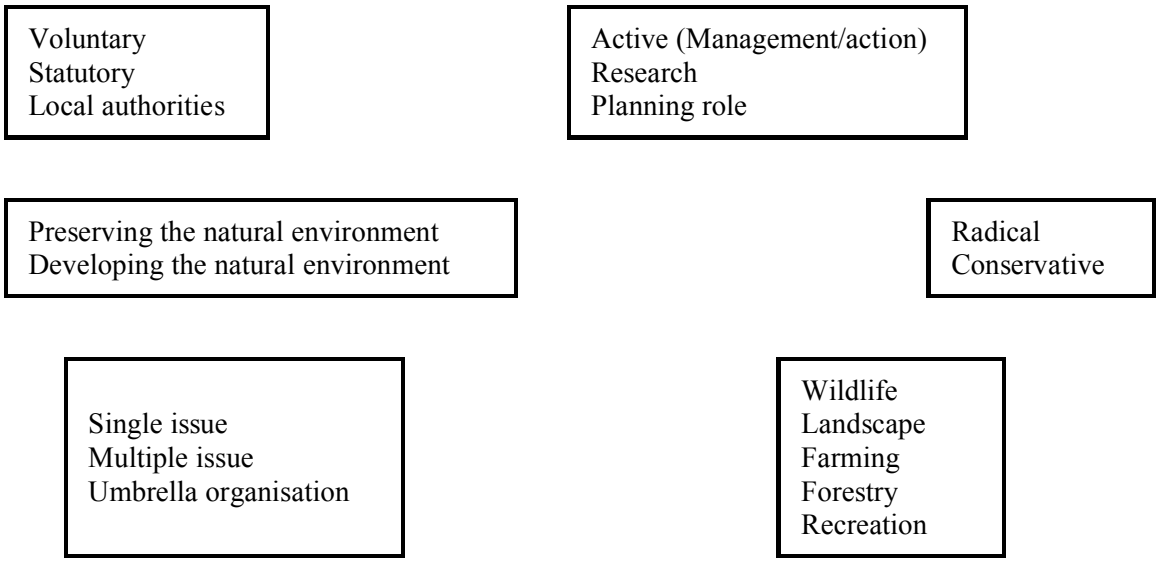


Figure 4. *Examples of different ways of classifying environmental organisations.*

Level of Communication	*Level of Concern for Nature*	*Typical Concepts*	*Examples of Organisations concerned with the Highlands*
Peak	All-embracing Spiritual	Gaia Deep Ecology	(Findhorn Foundation)
Feelings	Whole planet	Environmental Global resources	FOE, Greenpeace
Judgements	Ecosystems Biomes	Nature reserves	WWF, NCC, SWT
Facts	Species/Groupings Single issues	Preservation	RDC, FFWAG, RSPB, BSBI, NTS, SWT
Gossip	Man-centred	Use of resources	NFUS, DAFS, SLF, NSCA, SNSC, HIDB, CC

Figure 5. *Levels of concern for nature and levels of communication of different environmental organisations. Add other organisations where you think they fit best. This matrix should be seen as a model for discussion rather than a rigorous analysis – it is not possible to force complex entities into a rigid classification.*

To illustrate better what Figure 5 is trying to get across let us take an organization from each level and consider its attitude towards the *natural environment*:

- At the bottom level, the National Farmers Union may come up with a clichéd statement such as "All farmers care for the land".
- At the 2nd level, a factual statement "The Woodland Trust protects woods".
- At the 3rd level, a judgement from the Nature Conservancy Council: "We judge that this piece of land is more valuable than that in nature conservation terms".
- At level 4 there is movement to a more involved response: members of Friends of the Earth may actually put their arms round a tree to prevent it being felled.
- At level 5 organizations such as the Findhorn Foundation see nature conservation as part of a holistic, more spiritual relationship between life and the planet.

Conclusion

It has been stated earlier that people find it easiest to communicate with someone at the same level as themselves; this is because people tend to shy away from delving into and exposing their deeper thoughts. As a result, most communication tends to be confined to the lower levels. Most of the conservation debate, therefore, takes place at the 'lower' levels, and groups which try to operate at the 'higher' levels tend to be ridiculed or stereotyped: people who are afraid to delve too deeply tend to project their fears onto those who do. Attitudes change slowly, and, until such time as the general culture has accepted the general tenets of philosophies such as Deep Ecology, the conservation debate will be largely confined to non-threatening arguments of scientific fact.

Notes

1. Quotes are from *Deep Ecology* by Bill Devall and George Sessions (1985), Gibbs M. Smith Inc., Utah. Essential reading. This quote p. 65.
2. *Ibid.,* pp. 67-8. The basic principles are identified as follows:

   a. The well-being and flourishing of human and non-human life on earth have value in themselves (synonyms: intrinsic value, inherent value). These values are independent of the usefulness of the non-human world for human purposes.

   b. Richness and diversity of life forms contribute to the realization of these values and are also values in themselves.

   c. Humans have no right to reduce this richness and diversity except to satisfy *vital* needs.

   d. The flourishing of human life and cultures is compatible with a substantial decrease of the human population. The flourishing of non-human life requires such a decrease.

   e. Present human interference with the non-human world is excessive, and the situation is rapidly worsening.

   f. Policies must therefore be changed. These policies affect basic economic, technological, and ideological structures. The resulting state of affairs will be deeply different from the present.

   g. The ideological change is mainly that of appreciating *life qualities* (dwelling in situations of inherent value) rather than adhering to an increasingly higher standard of living. There will be a profound awareness of the difference between big and great,

   h. Those who subscribe to the foregoing points have an obligation directly or indirectly to try to implement the necessary changes.
3. *Ibid.,* These principles are listed on p.70.
4. *Ibid.,* p. 134.

[Author's note 2007. The book Deep Ecology *by Devall & Sessions was hugely influential on me at the time. Even though I say it myself, I have always thought this one of my more interesting essays!]*

From ECOS 10(2) 1989, pp.9-11

Democracy and Habitat Protection

What of responsibility where there is no freedom to help take decisions?

I do not know what the situation is in England, but in Scotland the message coming out loud and clear from those living in the country is for more democratic control of government agencies, whether they be the Forestry Commission, the Department of Agriculture & Fisheries for Scotland (DAFS), the Nature Conservancy Council, the Highlands & Islands Development Board, or the Countryside Commission for Scotland (CCS). Local people want to be involved in decision-making on land use, and strongly resent outsiders or 'office-based bureaucrats' coming along and telling them how the land is to be managed.

These statutory agencies are often responsible for major land-use changes: for example, what could be a bigger or more sudden change in land use than FC-approved deep ploughing and forestry planting? Incidentally, some people are saying that privatizing the FC would be the biggest and best democratization of land use that could take place – if, that is, the forests are sold to the local communities: this would give the communities vast tracts of land they could not otherwise acquire, and they could then decide themselves how to manage them.

Much anger in the Highlands is vented against the NCC, with Highland Regional Council in its Structure Plan singling it out for criticism.[1] This is hard to understand unless viewed in the historical context of the NCC being perceived as 'anti-development' and 'English-based' (with its Peterborough HQ) in an area that has suffered greatly under absentee landlords who often did little for local people, and who kept the land for themselves (the NCC being perceived as keeping land for a small band of conservationists).

Voluntary conservation groups are also accused (irrespective of whether it is true or not) of being 'urban-based', 'outsiders', or – the latest term of abuse – 'self-styled', when they comment on land-use decisions.

In all this, the message of nature conservation, which most people perceive as 'a good thing', gets lost. It is probably true also that some people are using the 'undemocratic NCC' argument purely to further their own ends of developing SSSIs. However, it is difficult to argue against the case for more democratic control of land. People feel strongly about land-use issues, and they currently have little say in how land is managed, so having control over the public agencies that influence it is the next best thing (most land is in the hands of relatively few people – Scotland, for example, has the most concentrated system of private land ownership in Europe)[2].

Democratic Dilemma

There is a major dilemma, though, for those who believe in more democratic decision-making, and who also believe in habitat protection. Take, for example, the hypothetical case of a local community wishing to fell an ancient woodland (an SSSI), and wanting to plant it with more productive conifers, and doing this through ignorance, indifference or greed. Who are we outsiders to stop them?

A real example is the Cairngorms: the local people, as expressed in the democratically elected local community, district and regional councils, wish to develop part of the Cairngorms for further downhill skiing development; this is in spite of outsiders viewing the area as of national/international conservation importance. On a larger scale, the Brazilian Government may be quite happy to see a large part of its tropical rainforest disappear, even though the rest of the world is against the idea. And who are we to tell them what to do?

The dilemma is that our belief in local democracy means that we should let local people make their own land-use decisions. But

on the other hand, we cannot let ourselves just stand back and allow them to destroy prime habitat. The long-term solution is better education, so that people appreciate the value of sites and do not wish to destroy them. This, though, is perhaps being too idealistic – community outlooks change with time and even though a community may be conservation-minded one year, the next year the local council or whatever could be dominated by pro-development groups (as is currently the case with Highland Regional Council).

Way back in the past, certain societies would have solved the problem with taboos – for example aborigines had sacred sites where hunting was forbidden; these were, in effect, nature reserves.[3] Our society needs some sort of 'taboo' system, and SSSIs could be seen as such (although this society is a long way from seeing them as sacred!). On the other hand, the fact is that SSSIs *have* been perceived as being 'taboo' areas where no farming or other activities are allowed, and 'progress' is stopped – which is another reason for their unpopularity.

The International Dimension

What conservationists are trying to do in the Cairngorms, and the Flow country, is to emphasize the national and international importance of the areas, with talk of "national and international responsibility", with the apparently unsuccessful aim of shaming local people into considering wider issues than their own short-term self interest. This approach, however, tends to be more successful at government level. After all, the Duich Moss saga on Islay only came to an end when the British Government was threatened with legal action because of a breach of the EEC Birds Directive.

One trouble with this approach is that people then turn round and say: "Okay; you say the area is of importance to conservation: if you think it so important then you'll have to pay us for not destroying it" – classic Thatcherite 'compensation for profits foregone' argument (cf. the Brazilian Government suggesting that the world community should help pay for tropical rainforest

protection).

Responsibility

How then can the national/international/moral duty/deep ecology importance of good habitat areas, and the need for their protection be squared with the belief in local community decision-making, without tremendous financial cost? This wider responsibility must be fitted into local decision-making. It is essential that the community has input from an agency with a national overview, which can bring to their attention the value that other communities give to particular sites. Conversely, it is essential that outside agencies are subject to democratic control so that they are not seen as 'self-styled custodians of the environment'.

There is still a need for a national site-safeguard system, but if the designated sites have been sanctioned or agreed by the local community, then this should act as a 'taboo' on their development. However there should be a place for appeal to a higher level of government if a community still wants to go ahead and destroy one of its sites.

There is a need for democratic decision-making in land use; but any new system will have to be careful to get the balance right between freedom and responsibility: freedom for local people to decide how the land is to be used, but in the light of a wider responsibility to the world community. One reason why SSSIs are being destroyed under the present system is that local people have not been involved in their setting up, and so do not value them highly enough: having no freedom, they have not exercised their responsibility. There is no better motto than the slogan: Think Globally, Act Locally.

References

1. Highland Regional Council (1988), *Draft Structure Plan Review,* p. 74.
2. Callander, R. (1987). *A pattern of land ownership in Scotland.*

Haughend Publications.
3. Milton, K. (1989). Anthropology: A conservationists' science. *ECOS* **10** (1), 29-33

[Author's note 2007. This was written near the end of the period of the 'great conservation battles' in the Highlands of Scotland – Creag Meagaidh afforestation, Duich Moss peat extraction and geese, Caithness peatland afforestation, Lurcher's Gully ski development – which brought the conservation-development debate to the fore, and resulted in the eventual splitting-up of the old UK-wide Nature Conservancy Council.]

From ECOS 13(4) 1992, pp.46-50

Wildlife Valuation

A sideways look at the economist's enthusiasm for a common currency in wildlife.

In March 1995 the Treasury decreed that all wildlife and wildlife sites must have a monetary value ascribed to them, so that their value could be assessed in relation to other competing land uses. The Government could then ensure that the consumer was getting value for money.

There follow extracts from the minutes of meetings of various organisations recorded during the year following this edict:

Joint Nature Conservation Committee, Wildlife Valuation Co-ordination Committee, May 1995

... Mr Hedges stressed that the overall aim of the committee was to ascertain the monetary value of wildlife in strictly *wildlife* terms. Thus, for example, the timber value of trees, or the agricultural value of grassland were not to be taken into consideration: it was the role of government to balance the timber and agricultural values with the wildlife values.

Mr Hedges said that the valuations of species and habitats were the responsibility of the various committees set up in different organisations around the country. It was the role of this committee to integrate all the monetary values into a coherent and integrated valuation of British wildlife...

British Bryological Society, Sphagnum *Valuation Sub-Committee, May 1995*

...The sub-committee decided to base its valuation on the amount of money that people would be prepared to pay to prevent a *Sphagnum* site from being destroyed.

Dr Ashworth reported that, on his meagre salary, he could only afford £450, explaining that he would want to keep an additional £50 for conserving the pale butterwort, a particular favourite of his. Of the £450 for *Sphagnum,* he said he would spend £150 for *Sphagnum lindbergii,* £200 for *Sphagnum majus,* £50 for *Sphagnum imbricatum,* £75 for *Sphagnum pylaesii*... Miss Biscombe pointed that *Sphagnum pylaesii* did not occur in Britain. Dr Ashworth replied that there was a possible record in Connemara, which he hoped to confirm. Even if he did not find it he would still like to set aside £75 of his money for *Sphagnum pylaesii.* Miss Biscombe noted that Connemara was not in the UK and that, in any case, although extremely rare in Europe it was abundant n North America, so should we be spending any of our money on it in Britain?

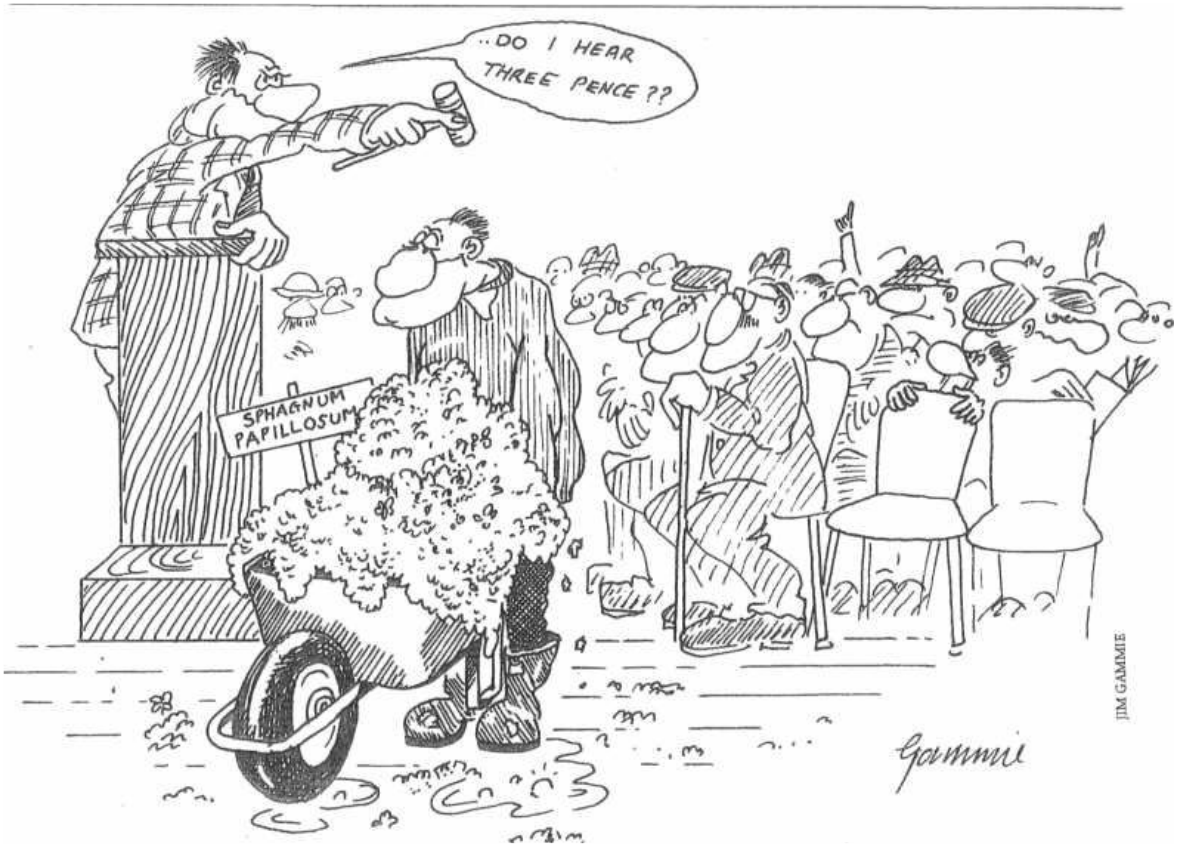
Dr Penpont asked whether Dr Ashworth's £450 would be a one-off payment, or whether he could afford £450 a year. Dr Ashworth replied that he had not considered the matter...

After adding up what each member of the sub-committee could afford, the amount of money available from them would be:

Sphagnum imbricatum	£339
S. *magellanicum*	£73
S. fuscum	£1,293
S. *quinquefarium*	£56...

Mr Smith pointed out that no-one seemed prepared to pay for the common species such as *Sphagnum palustre* and *papillosum.* This would make people think that these species had no value. The sub-committee agreed a quick whip round, and each member raised £1 for each of the common species. Miss Biscombe wondered whether a raffle could be held to raise more funds for *Sphagnum?*...

Dr Penpont said that he had calculated that there were 3,373 people in the UK who could identity at least two species of *Sphagnum,* but he doubted that there were more than 45 who could identify all UK *Sphagnum* species. Thus he did not have high hopes of raising the total monetary value of *Sphagnum* species to more than, say, 7 times what the sub-committee could afford. Miss



Biscombe said that there was always a chance of interesting a millionaire who, although knowing nothing about *Sphagnum,* might be willing to pay, as a worthy cause. In that case they had better act quickly in case the Moss (Acrocarpous) Valuation Sub-Committee or the Liverwort (Leafy) Valuation Sub-Committee got in first. Mr Smith wondered whether a monetary figure could be applied just to *Sphagnum* as a genus, rather than going to species level. Dr Ashworth, though, said that this was not sensible as Sphagnum species occupied such a wide range of sites, and species ranged from very common to very rare...

British Entomological Society, Coleopteran Valuation Sub-Committee, May 1995

...Jim Wilson said that one of the main problems was that the public would tend to value ladybirds highly, and pay a lot for their conservation, but be unwilling to pay for rare or unappealing beetles such as *Luperus longicornis.* He added that, even with ladybirds

there was a problem – would the public value all ladybirds equally, or just the 7-spot ladybird? John Harlaw added that the public might think that *Endomychus coccineus* was a ladybird when it was not.

Thomas Hyslop said that, with 4,000 British species of beetle, many of whose distribution was not fully known, it would take a long time to ascribe a monetary value to each species. In addition, would pest species such as pine weevils and woodworm be ascribed a negative monetary value? If so, would this be set against the positive monetary value of other beetle species? John Harlaw pointed out that some species might be ascribed a negative value in their larval stage for the damage they do, such as wireworms, but a positive value in the adult stage. If these values balanced out exactly, could a beetle have precisely no value?

Jim Wilson noted that some money need be set aside for beetle species not yet discovered.

The sub-committee agreed to adjourn to the pub.

British Trust for Ornithology Valuation Committee, July 1995

... All agreed that migratory species were a particular problem: should the UK share the monetary value of the birds with all the other countries which they visited? Dr Bruce said this would be difficult for birds which wintered over the open ocean.

Dr Bruce went on to say that the best valuation method was to ascertain how much people would be prepared to pay to go and see a particular bird. Mr Philip said that he had once spent £350 to travel from Aberdeen to the Scilly Isles to see an American tree swallow. John Kinshap noted it would have been cheaper to take a quick flight across the Atlantic to see the bird in the USA where it was very common. Mr Philip went on to say that he had calculated that, in an average year, he would spend £1,750 travelling around Britain to see birds. Mr Kinshap asked Mr Philip if he would pay any money to go and see a bird a second time? Mr Philip replied no. Mr Kinshap pointed out that in effect Mr Philip ascribed no monetary value to birds he had already seen...

Mr Jackson wondered whether the bridled guillemot should be valued separately from the commoner variety as he felt sure that people would pay more to see this variety. Mr Thompson, though, said the majority of the British public would not notice the difference and so ascribe no greater value to it. Mr Jackson said that if the public were better educated about it, they may then pay more. Mr Kinshap said that if the public were better educated they would question why they should have to pay *any* money to see birds...

Dr Bruce said that most people probably could not tell the difference between a pipit and a dunnock, and suggested a general category of LBJs (little brown jobs). This would mean that recognisable species such as sparrows would help boost the monetary value of birds such as the rock pipit which otherwise people would be unwilling to pay for...

Mr Jackson said that the simplest way to value birds in Britain would be to multiply the number of RSPB members by the annual

subscription, then divide by the number of bird species in Britain. This would give an equal monetary value for each bird, which could then be modified by a factor related to body size and colour. He added that he was currently working on a computer programme to do this. However Mr Kinshap said that he was not a member of the RSPB – he did support its work but, with so many other organisations to join, he could not afford it: there were probably many people like him, and so Mr Jackson's method might under-estimate the value of birds...

British Ecological Society, Habitat Valuation Committee, August 1995

Dr Robbins reminded members that at the last meeting the Committee had decided to use the National Vegetation Classification (NVC) as a basis for valuing habitats: each NVC community would be ascribed a monetary value based on the sum of the values of each component species. He added that the purpose of this meeting was to decide exactly how this was to be done.

Dr Andrews said that, as some habitats were rare and some common, might it not be necessary to treat each habitat type as an entity and ascribe monetary values to habitats *per se*? Dr Robbins responded by saying that rarer habitats would, in most cases, contain the rarer species so that a totting up of the individual species scores would ensure that rarer habitats had higher valuations.

Mr Wilson pointed out that rarer species did not necessarily have a higher monetary value because the public at large did not know about them, and so did not value them at all; in addition, there were not enough specialists familiar with rare species with enough money to significantly boost the value of rare species...

Mr Wilson asked whether the plant community valuations should include the animal species associated with each NVC community? Dr Robbins replied that it was the role of the Joint Nature Conservation Committee to integrate all the valuations and so come up with the final figures...

Dr Roberts pointed out that you could not just add up the individual species score for each NVC type as, within each community some species were common and some rare: each individual species score would have to be modified by a factor related to percentage frequency of occurrence of that species...

Dr Bruce agreed that the first stage would be to produce a list of the monetary value of all UK plant species: if these were entered into a computer it would be relatively easy to printout the monetary value of each NVC plant community...

Joint Nature Conservation Committee, Wildlife Valuation Co-ordination Committee, February 1996

Mr Hedges said that the Treasury was getting impatient and wanted the wildlife valuation completed by the end of next month. However, there were many problems still to be overcome: migratory species were proving particularly hard to value, and there were great problems with invertebrate valuation. The Freshwater Algae Valuation Committee had only just started; it had been pointed out that there was no valuation committee for aquatic phycomycetes. Mudflat and saltmarsh valuation had become bogged down in conflicting arguments between the Wader and Wildfowl Committee, the Marine Invertebrate Committee, and the Introduced Species (Marine) Committee. Some ecologists were unhappy at the decision not to attempt any valuation of bacteria.

However, Mr Hedges said that they were making progress and was confident that preliminary figures would be available for the Government in time...

Mr Gibbins reported that the first results had come in: the NVC plant community Calcareous Grassland (CG) 17 had been valued at £3,256, which when added to the value of fungi, invertebrates, birds and mammals generally associated with this community, gave a total value of £10,291. This compared with CG 16 which scored only £7,901 in total, and CG 18 which scored £30,021...

From ECOS 15(3/4) 1994, pp.22-26

25 Years of Change in Wester Ross

A personal view of how one area of Wester Ross, the Gairloch parish, has changed over the past 25 years.

It is easy to remember sudden large-scale developments in an area, but most countryside change is gradual. Like watching a child grow up, nothing seems to change and yet everything is changing. It is only when you sit back and take stock that you realise the cumulative effect of many small changes.

You need to be aware, though, that some 'changes' have never happened – it is only that *your awareness* has changed. For example, nowadays there seem to me to be many more red- and black-throated divers in Wester Ross, but this is probably only a result of my increased awareness of these birds. Another species, the heron, also looks to have increased in the area because there is now a heronry above my old house which was not there in my day. But has the number of herons really increased, or have they just moved their heronry to a new location? Even close observation cannot always reveal change. There is a patch of Himalayan knotweed which has been beside the road as long as I can remember and, although I always watch it carefully, I am still not sure if the patch is growing in size – something which could easily be tested if only, way-back, I had taken measurements or a photograph.

I am always very wary of accepting local people's view of how things have changed (so you will also have to take everything I am saying here with a pinch of salt!). Most people, in my view, are incredibly unobservant with regard to countryside change, and memories are short! Can you remember what the weather was like two years ago ? (Summers were always sunny in those days!).

When somebody tells me "There used to be much more/less of this in the past", I never believe them without supporting evidence.

And there is a danger of believing something because everyone says it is the case. For example, everyone says that bracken has spread dramatically in recent years, because this is the accepted dogma. Now, while I accept there has been some spread, I need convincing that it is spreading more rapidly than it ever has done. You only need to read about some of the problems with bracken in the 1930s to realise that it was a worrying issue even then.

Similarly, it is generally accepted that native woodlands in Scotland are all declining because of overgrazing. However, in this parish, I can think of no native wood that has declined in area over the past 25 years. Indeed, I have watched one particular wood expand dramatically in spite of heavy sheep grazing, and I have seen limited expansion or regeneration at many other woods. These are mainly low ground woods which are probably benefiting generally from less crofting activity (and hence fewer sheep), less muirburn, and few deer.

The tax incentives prior to 1988 encouraged large-scale commercial forestry *(i.e.* deep ploughing and Sitka spruce), but happily the Gairloch parish emerged relatively unscathed from this. There is, though, one horrific plantation just outside the area (on the road to Gairloch just east of Glen Docherty), where about fifteen years ago deep ploughs ripped through the whole landscape – it makes me shudder every time I drive past. How can anyone be so insensitive to the land as to drive such a great big plough roughshod through everything? I often wonder what the tractor driver was thinking as he did this: proud of a job well done, or indifferent and uncaring?

Of course, over the past 25 years everyone has acquired diggers, so the amount of damage that can be done by one person in a day is staggering. Short (or long), rough-hewn access tracks spring up everywhere, small quarries suddenly appear, and all roads now have deep ditches on either side. This makes the 'hand of man' generally more obvious in an area that consists predominantly of semi-natural vegetation.

You used to pass through the main forestry plantation, Slattadale, while winding along the old single-track road to Inverness. This provided a complete contrast to the predominantly open moorland, being dark and gloomy with massive trees. The comparison nowadays could not be more staggering – a brand new straight road, the trees all felled (but replanted), and a wide vista across Loch Maree. The road is built to the highest EC standards *(i.e.* over-engineered for the traffic flow); most road building in the Highlands has been EC funded, and I am told that they have to be built to these standards to receive the EC cash.

There was another stand of even bigger firs in Kerrysdale – grand trees (even if alien conifers), but they have mostly blown down and, being in a place too difficult to extract, now form a sad, untidy, mess. I know of nearby plantations dating from the 1960s where, although right next to the road, even if the timber were extracted it would be totally uneconomic to do so. There is also a hydroelectric pipe down this glen, and the trees the old Hydro Board planted to screen it (cypress) have finally grown big enough to form a sort of screen, but they themselves seem totally out of place to a modern, conservation-biased eye!

A long time ago I remember talking to one estate worker on the Letterewe Estate who was proud of having just single-handedly planted a whole forest of Lodgepole pine – and I admired him. Now, though, I see these trees as totally out of place in a sensitive landscape area, and would like to see them removed. It seems to be the case that I am finding so much conservation work nowadays in Scotland consists of undoing a lot of hard work put in over the past twenty-five years.

Sometimes, though, nature does the undoing. There are still one or two farms trying to make a living on the very infertile soils of the area. I have watched one area of moorland being 'reclaimed', *i.e.* ploughed and seeded with grass to make permanent pasture, and then watched all this hard work dissipate as rushes slowly took over.

Such reclamation of moorland will probably cease as it is no

longer grant-aided – heather moorland is now seen to have value in its own right. Indeed, it strikes me as very easy to send agriculture or forestry in any direction you like by changing the grant structure. It would appear, without exception, that action by farmers and foresters is directed solely by fiscal incentives *(i.e.* taxpayers' money in their pocket). People are now waking up to this, and hence all the talk of cross-compliance – money will only be made available if certain environmental conditions are met, and I hope this trend continues.

Another example of this is the headage payment for sheep, where farmers and crofters are given money based on the number of sheep on the ground – the more sheep, the more money. Certainly sheep numbers in Scotland as a whole have risen because of this. However, in this area the number of crofters who actually work the land has been decreasing over the years. All that they do now is to stock sheep on the land – but I cannot say whether the number of sheep has actually increased here. The lack of tillage of any sort means that all the old inbye land is going over to rushes. Climate and soils are so poor in this part of the world, and any inclination to work the land so lacking in the up and coming generation, that I can only foresee that agriculture will continue to decline. However, to contradict this, because of lack of other employment opportunities, there may be one or two dynamic crofters who try to make a living off the land and intensify their holdings.

Another thing that has declined is peat cutting. Coal used to be hard to come by and expensive, but a local man several years ago set up a coal business (and won an award for his initiative), and few people now bother to cut peat. This pleases me as, being keen on bogs, I see less threat to the many good quality bogs that still remain in the area – it is surprising how much the countryside has been altered by hand-cutting of peat over thousands of years. There is one area that has escaped this stripping that I know particularly well – or at least I thought I did; happily, it can still spring surprises, for the other day I discovered a superb, pristine patterned bog – full of the

Peat cutting has transformed the landscape of Gairloch *Photo J Fenton*

Rare brown beak sedge. In my view this site is certainly of SSSI quality, although whether Scottish Natural Heritage would designate it is a moot point – SSSIs smack too much of nature conservation! 'Partnership' and 'sustainable development' are the current buzz-words, and conservation has apparently got lost down the line (although the Habitats Directive may change all this).

Since the 1960s the previous population decline of the area has been reversed because of an influx of incomers – who have moved in because they like the area – which results in the typical mixed Highland community. Towns and villages have expanded, and new bungalows continue to replace croft houses. Crofters still receive very favourable grants for many of their activities.

One new source of employment has been fish farming, with fish cages springing up in both freshwater and sea lochs. I am not too concerned about marine fish farms as the cages are transitory structures which can easily be removed, and so do not result in permanent landscape change – although the jetties, tracks and shore bases associated with them are more permanent and add to the generally increasing human impact on the landscape. I cannot get too excited about the possible biological impacts of the fish farms in the sea, as the sea is a big place. On the other hand, if the decline in sea trout is due to lice infections from marine fish farms, and there

are few sea trout that enter Loch Maree now, then maybe I should take marine fish farms more seriously. However, fish cages have also sprung up in small oligotrophic freshwater lochs, and I am concerned about possible eutrophication of these. Fish farms do bring much needed jobs, but the sudden take-off of the industry seemed to have taken everyone by surprise and it expanded in the absence of any strategic planning framework. This has resulted in much debate and acrimony, although things have quietened down in recent years.

The influx of tourists has not increased significantly, and only in the last few years have numbers been up on what they were in the mid-70s. Over the last two years, though, there has been a significant downturn, and the pattern is changing, with fewer summer visitors and more autumn visitors. What has changed markedly is the general ease of access to the area by road – it no longer feels so remote. The new A9 north to Inverness, and dualling of single-track roads, have, as in most of rural Scotland, left it wide open to all the influences of the outside world.

In the late 1960s, almost the only guide book to the hills was that by Poucher, and I think I am right in saying that the Scottish Mountaineering Club used to have an enlightened policy of not publishing guidebooks for the far northwest of Scotland – in order to keep the area wild.

I have watched since then as guidebook after guidebook has been produced *(The Last Great Wilderness No 4, etc.),* so that everyone has now heard of, for example, the Letterewe Estate, and the recent 'Letterewe Accord'. We used to have a feeling that these were 'our hills', and so, to some extent, resent all the publicity and outsiders now coming to them. But this, I suppose, is inevitable, and you cannot drive past a layby below a Munro nowadays without at least half a dozen cars parked there.

This has all resulted in much talk of 'access' (something we used to take for granted), and 'visitor management', and 'conflict', and signs, and accords, *etc.* The landowning lobby is desperate to

show that public access and estate management *(i.e.* deer shooting) can go hand in hand, so I am sure more time will be spent working out and formalising agreed access codes.

What of the future? I think there will be more management of the wild land ("wild land cannot look after itself"), but it will take place in the absence of any strategic planning framework set up to conserve its landscape quality. The area has been suggested as a possible National Park since the 1940s, and it has been a National Scenic Area for many years, but this has not meant anything. It could, I suppose, become a Natural Heritage Area, but nobody quite knows what these will be. As a result it will continue to suffer from the cumulative effect of many small changes, each one in itself of no consequence.

Native woodland will continue to expand, both by itself and by fencing, although recent changes in the Woodland Grant Scheme have reduced incentives for this. 'Ecological restoration' will continue to be the buzz words, and there will be much discussion of what we want to restore and over what timescale. A new player on the scene will be wind farms, for the peninsula on the west side of Loch Ewe, and the coast south of Gairloch, must have some of the sites with the best potential in Scotland.

In conclusion? The Gairloch area has some of the finest semi-natural landscape in Britain. It has evolved slowly over the centuries, with change limited by what was possible with hand labour, and there was a general *laissez-faire* attitude to management of the land outwith the crofting townships. Now the population is increasing again, and the people in the area have as much right to 'development' as anywhere else in Britain. But maybe we are in too much of a hurry, of wanting to get on and *do* things, without stopping to think. Not so long ago the Highlands of Scotland were revered as great tracts of wild, natural land. Now the feeling seems to be that this is an artificial landscape which must be restored. But, being semi-natural, the current landscape does have an unbroken link back to its Utopian, fully-natural past and, although I am

broadly in favour of ecological restoration, I have a fear at the back of my mind that we might "manage it to death" – with something indefinable being lost.

[Author's note 2007. This essay predicted the coming of windfarms – although currently there are none planned in Wester Ross itself, owing to the distance from the National Grid and the designation of the area as a National Scenic Area.]

From ECOS 17(1) 1996, pp.47-49

Out of Site, Out of Mind?

Our inability to empathize with 'lower' life forms is a major obstacle to the conservation of marine and other life. This series of anecdotes questions the differences between Us and Them.

We all know how difficult it is to get the public to relate to animals that are not soft, furry and cuddly, and how this can make their conservation difficult: the gulf between us and the 'lowly' animals is perceived to be too great. But we are all animals together in this, the great miracle of life in an otherwise inhospitable universe – and are we really so different?

To most of us the sea is its surface, but beneath the sea there is, of course, literally a different world. Those creatures living underwater carry on their own life *indifferent* to what is going on above – the aerial world is probably as beyond their imagination as the underwater world is to ours. Sometimes, of course, the aerial world does affect them; for example, a gannet diving into a shoal of fish must seem like a being from outer space! Some underwater animals are so bizarre, that even someone writing the most far-out science fiction would not have thought of them: sea slugs with strange outgrowths on their backs, pycnogonids with no body and their stomachs in their legs, weird glowing plankton, beautifully coloured, but deadly, dahlia sea anemones, delicate brittle stars, and, of course, the amazing crustaceans – so complicated and yet so delicate with their numerous arms, legs, feelers, and other appendages too numerous to mention, that they look as though they have been designed by a committee. And the eyes of crabs are always so beady that it is as if they are observing you rather than the other way round!

Then there are fish. What a raw deal fish get from us humans: used in catch-and-release fishing as if mere playthings, crammed into cages, brought up suddenly from the depths and

allowed to suffocate in their millions, and boiled alive. They are surely too remote from us for us to empathize with them. And yet, and yet... I always remember visiting the Logan rock pool in Galloway where tame cod used to come up and like having their backs stroked! And skate, in a modern aquarium, eye us up and appear just as much on the lookout for food from us as any pet dog or cat.

I can, in fact, spend hours peering into rock pools by the sea, trying to get to grips with this other world, watching the various interactions between species. A particular favourite of mine is the hermit crab: at the slightest disturbance from me it retreats into its shell, and then hesitantly looks out to see if the danger is clear. If you repeat this a few times, its patience appears to wear thin, and it hardly waits at all before coming back out and setting off on its eternal wanderings.

It is not just sea-shore creatures that fascinate. I enjoy watching any lowly animal at work. One of my particular favourites is the water cricket that runs around on the surface of rocky streams. They appear to be very territorial, and enjoy interacting with each other – chasing their neighbour out of their patch before retreating back to the shore where they rest with one foot on dry land to stop themselves drifting away. I remember watching one water cricket get so carried away trying to catch some insect that had fallen onto the surface of a pool that it did not notice it was heading for a waterfall: suddenly it disappeared over the edge with its prey...

In the same way that I enjoy molesting hermit crabs, once, when observing the bottom of a sandy river, I was rather mean and turned onto its back one of the flat sand-cased caddis fly larvae (a *Molanna* species). It stretched as far as it could out of its case and tried to get a grip on the surface of the river-bed to right itself. But, because the case overhung its entrance hole, it could not reach the ground while still anchored in its case. So it got out of its case altogether, crawled back into its hole the wrong way round, and came out of the back end of the case: sticking out the back of the hole it could now easily reach the ground, and turn the whole case

over. Then it emerged from the hole again, and got back in the right way round. This looked very like thought-out problem-solving to me; or are these insects turned on their back often enough for this exact behaviour to have evolved? How much latitude for creative thought is there in a genetically-programmed insect?

However, the lower animals do appear to have fixed behaviour patterns, a fixed psychology If you like, so that they cannot act out of character: all members of a given species will act the same way in similar circumstances. For example, a worker wasp will always act the same way as any other worker wasp. But, as we move up the scale, a greater range of behaviour is possible within a species. Take a litter of puppies, for example: one puppy will be shy, another adventurous, one active and another lazy. These behaviour patterns, though, appear fixed in that animal throughout its life: a puppy that is shy when young will tend to turn into a shy dog – you can't teach an old dog new tricks! However, it could be argued that, when you come to humans, we each have the potential to become anything – our psychology, if you like, is less fixed by our genes.

By relating individual species to individual human beings, life underwater can be used as a mirror on human society. Once when I was tutoring a personal development course with a group of young business managers, we went pond dipping. We came back with a good collection of wigglies (pond beasties), and watched them for a while. I asked each member of the group to separate out that species which they thought appeared most similar to themselves. Thus one member of the group identified herself with the whirligig beetle, always rushing around at great speed while not getting anywhere; another thought the freshwater shrimp more like himself, scurrying along, hiding under things, but always looking for something; another chose the damselfly nymph, slow and still, and always thinking carefully before moving; another the snail and so on... This exercise was, in fact, a non-threatening way of getting people to look at themselves, "to see ourselves as others see us", to help them with their group and social skills. It was, I think, one of the most

successful tutorial sessions I have ever conducted. There is, though, nothing new in this approach: there are many everyday expressions that relate us to invertebrates such as “snail’s pace”, “busy as a bee”, “lazy slug”, and “hornets’ nest”.

But this does show that perhaps our psychology has much in common with that of the lowly animals. Indeed, I often marvel at how much we animals have in common. Take a sense of colour, for example: why are flowers colourful and perfumed? Is this just for our benefit? Of course not, butterflies see colours too: a whole raft of insects, and hummingbirds, have been taken advantage of by plants because these animals prefer bright colours and strong smells. And, of course, birds, particularly the females of the species, love colour too, otherwise why are there so many bright and colourful birds? And colour signals can be the same throughout the animal kingdom: wasps have a yellow colour, and ladybirds a distinctive red colour – both warning signals, similar to our warning colours (traffic lights or lifejackets, for example). We also share other behavioural traits with animals: a cry of pain is the same whether coming from a human, dog or rabbit; and even insects writhe.

However, we should not judge animals out of their natural context: to say, for example, that fish are stupid or unintelligent is nonsense. In terms of coping with their own, biologically determined life (foraging, feeding, breeding) their intelligence admirably matches their need. Which reminds me of one story about a researcher studying pigeons. He concluded that pigeons were not very bright because they could not be trained to tell the difference between a square and a triangle. However, this turned out to be the wrong question to ask, for, when asked to distinguish between the silhouettes of different trees, they could do it almost blindfold.

Thinking of certain animals as not being very bright is a common tactic used by us humans to treat them badly. For example, phrases such as “chickens are stupid animals anyhow” or “fish are stupid enough to be caught” are often heard. Until we can respect animals, which in practice means empathizing with them, we are not

going to bother to conserve them. And you cannot really empathize with them unless you take the trouble to study them – to look at them with your eyes open. .What has always struck me as strange is that, although there are many ‘conservationists’, there are few ‘naturalists’. It is as though many people think ‘conservation’ is a Good Thing in general terms, but have not really made the effort to find out what they want to conserve! It is easy enough, of course, with some animals such as ‘Saving the Whale’, for everyone knows what a whale is. But a ‘Save the Pycnogonid’, or ‘Save the Marine Nematode’ campaign would likely fall flat, for hardly anybody knows what these are, let alone why we should be concerned for them.

Hence the conservation of sea life is an uphill struggle. Not only do we not respect marine creatures, we would not recognise half of them if we saw them. But there are some hopeful pointers to the future. The many modern marine aquaria which are designed as major tourist attractions do bring in the masses (including the children), and do give a glimpse into a wide range of underwater life. Their popularity shows that people *are* interested in marine life. This is the beginning of a long process of education and awareness raising, which is the heart of the environment movement.

From ECOS 17(2) 1996, pp.12-18

Wild Land or Wilderness – Is There a Difference?

What do conservation groups mean by wilderness and wild land?

How many times have you read recently, particularly in the outdoor press, that such-and-such a place is the Last Great Wilderness (LGW)? How many LGWs do you know? Should LGW become an official landscape designation? Seriously, though, this label does imply that wildernesses are seen as important, indeed attractive, to people. In nature conservation circles there is also much talk of allowing nature reserves and other protected areas to manage themselves by letting them 'go wild'.

However, at a recent seminar on wild lands and wilderness in Scotland,[1] there was little agreement as to what constituted a 'wild area' or 'wilderness', and there appeared also to be a wide range of possible 'wilderness experiences.' One main conclusion was that 'wilderness is a culturally-derived concept'. But, what concept is not culturally-derived?

Core concepts of wilderness

In Scotland people wanting to conserve the environment are afraid to use the term 'wilderness' at all, preferring the term 'wild land'. Wilderness has a bad press (as it nearly always has had – Anthony Smith tells us that the word wilderness is used in the Bible 300 times and all its uses are derogatory[2]; however, did not Christ's 40 days and 40 nights in the wilderness strengthen him for his later mission?). The argument in Scotland goes that, because there were once people living in what are now lands empty of people, indeed often cleared of people in the Clearances, these empty lands are not a true wilderness for there should be people living there; and a wilderness cannot have people living in it.

In addition, the Highland landscapes themselves have been

largely modified by human activity – they are not 'natural' landscapes – the implication being that wildernesses should be natural.[3]

However, this does introduce two of what everyone agrees are core concepts of wilderness – emptiness (of people) and naturalness. The two are, of course, related: an area of land empty of people, and especially one having had no historical occupation, is likely to be natural *(i.e.* not influenced by man and his activities). And even once-occupied areas can in many cases revert to natural vegetation. Conversely, a natural area is likely to be one with minimum human intervention, *i.e.* unoccupied.

But wildernesses are not wastelands. A wasteland is a place that has been ecologically devastated by human activity. A wilderness can be rich in life.

Arguments against the wilderness concept

The concepts of naturalness and emptiness can be pushed too far, and can lead to sterile arguments about the nature of wilderness. One such argument is that, because we are part of nature (which of course we are), then all our activities are natural, thus making the whole concept of naturalness irrelevant, and undermining the idea of wilderness. However, following this reasoning, if you argue that everything is natural, then the word 'natural' loses its meaning completely: such a word only has meaning in relation to its opposite – artificial. And 'artificial' is a useful concept: to separate our creations (whether a table, a car or a designed landscape) from 'natural' creations does help us make sense of the world.

Another argument against the wilderness concept is that mankind has been modifying the surface of the world almost ever since we evolved: we have made, for example, the woolly mammoth extinct over most of the northern hemisphere, as well as many other large mammals, which will have modified the overall grazing patterns in these areas, and so affected the vegetation cover. Similar extinctions have been caused by aboriginal populations the world

over, *e.g.* in New Zealand and Australia. There never has been a Golden Age of man in harmony with nature.[4] There have also been very few areas of the world without indigenous human populations – only Antarctica, Svalbard, and a few remote oceanic islands come to mind.

Nowadays even previously unpopulated areas such as Antarctica have had their ecosystems changed through our activities, whether destruction of the great whales causing a changed food chain *(e.g.* more penguins), or human-induced climate change affecting the whole globe. Hence, there is nowhere left on earth that is completely 'natural' and therefore no such thing as true wilderness anymore.

Strictly speaking, I suppose, the above argument is correct. However, there are degrees of wilderness. Maybe there is no true wilderness left on earth, but there are still some pretty good approximations. And perhaps the more recent concept of wildernesses being places where 'natural processes' are to the fore, rather than being natural *per se* is more useful.

Wild land *versus* wilderness

And there is also the question of scale; do wildernesses have to be large? If 'natural processes' is a more useful concept than 'natural', then there are numerous small areas where natural processes predominate, where mankind is not in charge, where nature is taking its course – mini-wildlands if you like. For example, what goes on underwater in a small pond, or even a gutter – the complex of food chains and food webs – is totally outwith our control. Similarly, the nettle patch at the bottom of your garden or the overgrown urban gap-site is a wild area that is generally unplanned.

However, I think it is useful to introduce a distinction between 'wild land' and 'wilderness'. A good definition of wild land would be "an area where natural ecological processes are paramount."

Wilderness is more than just wild land: it is an area where there is a lack of obvious human activity, and which is remote from

civilisation – a place where you can abstract yourself, hermit-like, from society. This makes wildernesses necessarily larger than the minimum for wild land. Natural processes can be predominant in an area any size (although if we want to conserve some of the larger species on this planet, we do need large areas of wild land for them to roam about in). However, it is difficult to feel remote in a small area.

Human artefacts detract from wilderness. Nature's creatures and plants, on the other hand, care not a whit whether human artefacts are present, or care not how big the area is as long as they can live out their natural lives. They are quite capable in themselves of reverting a previous civilised area to a wild, natural area.

Attributes of wilderness

It is in fact more difficult to define wilderness than wild land, for wilderness has more attributes. The attributes of wilderness are listed in Table 1.

Table 1. Basic attributes of wilderness

OBJECTIVE REALITY	***SUBJECTIVE REALITY***
VEGETATION TYPE	Perceived naturalness
ANIMALS	Perceived naturalness Fear
SIZE	Feeling of remoteness Feeling of isolation
ARTEFACTS	Perceived non-naturalness (Visibility)
CLIMATE	Comfort/Discomfort
↓ WILDERNESS AREA	↓ WILDERNESS EXPERIENCE

It is useful to separate out the objective aspects of wilderness, which relate to objectively measurable traits on the ground, from the

subjective experience of these traits. Obviously the subjective experience will differ from individual to individual while the objective traits remain constant.

Table 2. Subdivision of attributes that add to or detract from wilderness

OBJECTIVE REALITY	*SUBJECTIVE REALITY*
VEGETATION TYPE	
– Natural/Semi-natural (biblical "barrenness", uncultivated, natural processes, indigenous)	Perceived naturalness
– Artificial (cultivated, plantation, non-indigenous)	
ANIMALS	
– Domestic	Perceived naturalness
– Wild	
– Extinct (human-caused)	
– Large carnivores (man-eating)	Fear
SIZE	
– Geographic size	Feeling of remoteness
– Distance from inhabited areas	Feeling of isolation
– Crowdedness	
ARTEFACTS	
– Vegetated (indistinct)	Perceived non-naturalness
– Unvegetated (distinct)	Visibility
– Modern	
– "Archaeological"	
CLIMATE	
– Equable	Comfort
– Extreme	Discomfort

In practice this means that a given area of land can result in different wilderness experiences for different people: for example, a person who believes he or she is in a natural landscape will have more of a wilderness experience than a person who realises that the landscape is artificial, or at least semi-natural. You may enjoy a wilderness experience in, say, a Sitka spruce forest in Britain if you

did not realise you were in a plantation of non-indigenous trees. Similarly, you may enjoy viewing a sycamore tree as part of the natural landscape in Britain if you did not realise it was an alien species and so not part of the natural landscape.[5] As your awareness increases, so does your perception of landscape character.

Not everyone who enters a wilderness will necessarily have a 'wilderness experience': to some extent you have to be receptive and have to have a feeling for the land.[6]

The basic attributes of wilderness as listed in Table 1 can be subdivided as shown in Table 2, with some of the attributes contributing positively to wilderness and some negatively. These attributes can also be used to characterise different types of wilderness (Table 3). As already discussed, ecologically wild land (Table 3.1) may or may not be a wilderness, but a true wilderness is necessarily ecologically wild (Table 3.2).

A true or primary wilderness can thus be defined as an area with the full range of its natural (indigenous) flora and fauna, large in area, and possessing no people or artefacts. A secondary wilderness is less pristine but shares the characteristics of primary wilderness in being an area little affected by current civilisation, where nature and natural processes are in charge, and where people can isolate themselves.[7]

It will be seen in the tables that climate is also given as an attribute of wilderness (although it is not relevant in defining ecologically wild land), and a true primary wilderness is shown as possessing an extreme climate. It maybe debatable as to whether climate should be an attribute. However, it would appear that experiencing an extreme climate increases a 'wilderness experience': this is probably because it increases the 'beyond human control' element of the experience. It is harder to envisage a wilderness experience in a warm, sunny equable climate.

An attribute that is missing, because it is not deemed to be relevant, is the shape of the land. For example, mountainous areas are often the source of wilderness experiences. But it is not the

Table 3.1. Variations on wilderness: Wild Land
(Showing the attributes that define different wilderness types)

Necessary elements of "Wild Land"
↓ (Ecologically Wild Land)

VEGETATION TYPE	Artificial	Semi-natural	Natural
ANIMALS	Domestic	Wild	Large carnivores*
SIZE	Small Crowded	Medium Uncrowded	Large No people
ARTEFACTS	Many visible	Some visible	None visible
CLIMATE	Equable	(Variable)	Extreme

*if indigenous

mountains *per se* that result in the experience, but the attributes here listed in the tables: it just happens mat mountains are ecologically more difficult to cultivate and tame than other areas, so they tend to contain more of the attributes of wilderness. Wilderness experiences can be had in flat areas such as the Sahara desert or an Arctic tundra.

Primary and secondary wilderness

Of course there is not much primary wilderness left in the world, although much secondary wilderness can approach true wilderness (Table 3.2). And there is no reason why wilderness areas could not be re-created in certain areas, with currently cultivated areas reverting through secondary wilderness to primary wilderness. This will often need human intervention, whether in the removal of artefacts or in the reintroduction of species. There may be some

Table 3.2. Variations on wilderness: necessary elements of Primary & Secondary Wilderness

VEGETATION TYPE	Artificial	Semi-natural	Natural
ANIMALS	Domestic	Wild	Large carnivores
SIZE	Small Crowded	Medium Uncrowded	Large No people
ARTEFACTS	Many visible	Some visible	None visible
CLIMATE	Equable	(Variable)	Extreme
		↓	↓
		SECONDARY WILDERNESS	PRIMARY (TRUE) WILDERNESS

philosophical discussion whether, because a wilderness area is consciously re-created, it itself becomes an artefact, but most people would argue that the predominance of natural processes (out of human control once the starting conditions have been initiated) does make it natural rather than artificial.[8]

There are as many kinds of secondary wilderness as there are shades of grey. Table 3.3 shows some of them, comparing, for example, the core mountainous areas of the English Lake District with those of the Scottish Highlands.

However, because there are so many shades of grey, it should not be attempted to too rigorously squeeze the different types of wilderness into this relatively simplistic classification system. This

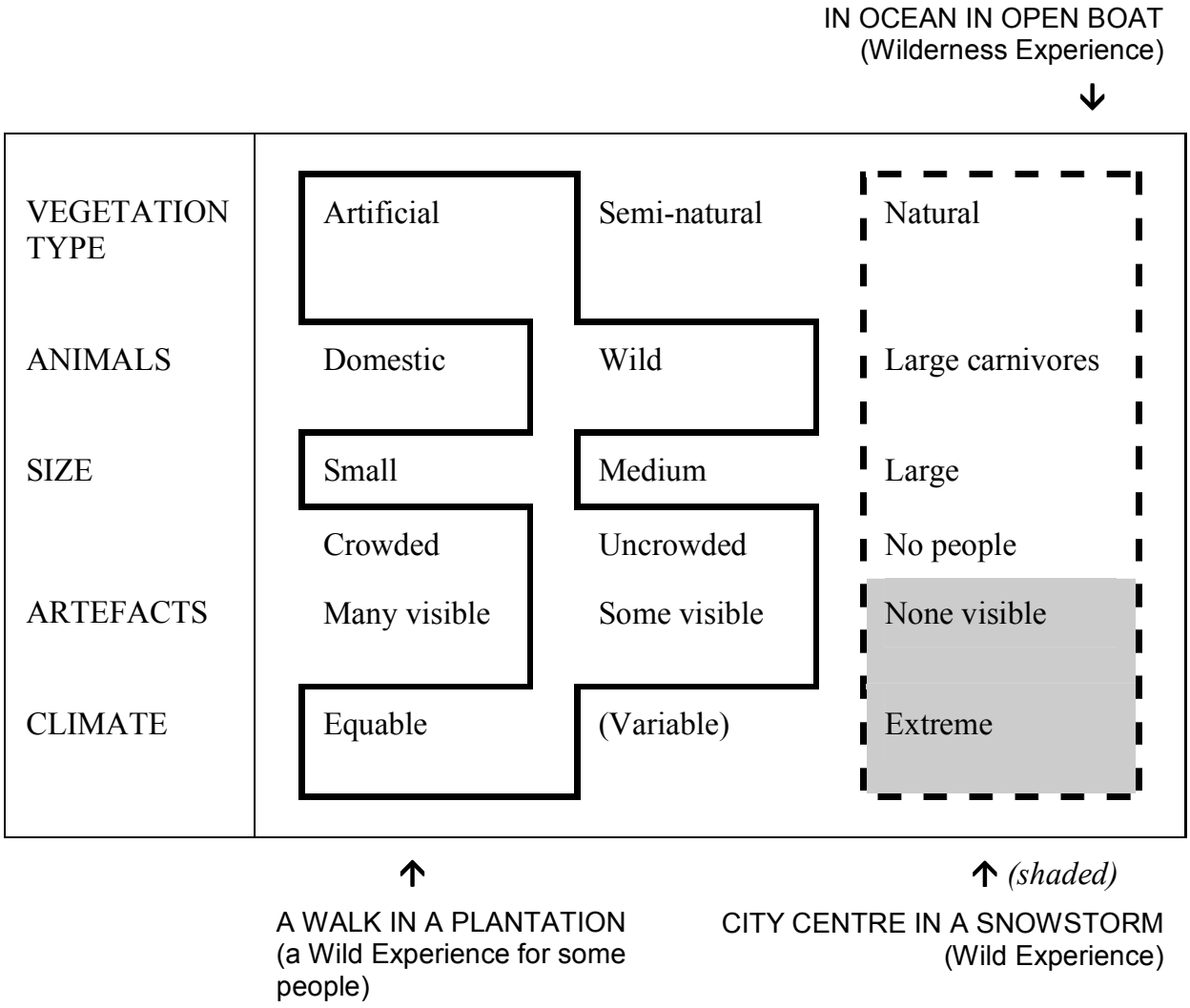
Table 3.3a. Variations on wilderness:
UK Wildernesses – Lake District

VEGETATION TYPE	Artificial	Semi-natural	Natural
ANIMALS	Domestic	Wild	Large carnivores
SIZE	Small	Medium	Large
	Crowded	Uncrowded	No people
ARTEFACTS	Many visible	Some visible	None visible
CLIMATE	Equable	(Variable)	Extreme

Table 3.3b. Variations on wilderness:
UK Wildernesses – Scottish Highlands

VEGETATION TYPE	Artificial	Semi-natural	Natural
ANIMALS	Domestic	Wild	Large carnivores
SIZE	Small	Medium	Large
	Crowded	Uncrowded	No people
ARTEFACTS	Many visible	Some visible	None visible
CLIMATE	Equable	(Variable)	Extreme

Table 3.4 Variations on wilderness: Marine & Other Experiences



system is merely a useful aid to understanding the wilderness concept.

Wild *versus* wilderness experiences

It is useful to distinguish 'wild experiences' from 'wilderness experiences' (Table 3.4). A wilderness experience is one that occurs in a wilderness. A wild experience could potentially occur anywhere. For example, fighting your way through a blizzard is a pretty wild experience, and can be experienced both in the remote Arctic or in a city centre. In the Arctic, the remoteness from civilisation makes it a wilderness experience as well, whereas in the

city centre it is merely a wild experience as shelter is always nearby. Climbing a remote cliff face would be part of a wilderness experience, whereas climbing a block of flats would be merely a wild experience.

It will be noted that the term 'wild' has here been used in two different contexts – as in 'wild land' and in 'wild experience', although ultimately their meaning is the same: wild equals not tame (not domestic). Hence, 'wild land' is here used to mean land that is ecologically wild – where domestic species take second place to wild species, and natural processes take precedence over artificial processes. And a 'wild experience' is here used to mean an experience that is not tame and domestic: one that is brought about by exposure to natural forces, which may or may not occur in wild land or a wilderness.

Wild experiences can be had at sea (especially in areas which could not be called wilderness – in the Thames estuary, for example). However, being in the open ocean in an open boat could here be defined as a wilderness experience.

Concluding remarks

In conclusion, the attributes here ascribed to wilderness attempt to provide a distinction between wildernesses and merely wild areas; they do help differentiate between wilderness areas themselves and the experience of wilderness; and they show that there is a difference between a wilderness experience and a merely wild experience.

There is a great need to protect the remaining wildernesses on this planet, as well as the need to re-create wild land.[9] We in Europe cannot argue for the retention of large areas of wilderness and wild land in other parts of the world if we are not prepared to put aside some ourselves (and this also means leaving room for our large carnivores which we so want other parts of the world to do). And we cannot really set aside wild land and wilderness areas if we do not understand what they are!

Summary of definitions

WILD LAND: An area where natural ecological processes are paramount (can be of any size).

WILDERNESS: An area little affected by current civilisation, where nature and natural processes are in charge, and where people can isolate themselves from other people.

PRIMARY WILDERNESS: An area with the full range of Its natural (indigenous) flora and fauna, large in area and possessing no people or artefacts.

SECONDARY WILDERNESS: An area of semi-natural vegetation where wild animals predominate over domestic stock, medium to large in area and possessing few people or artefacts.

WILD EXPERIENCE: An experience brought about by exposure to natural forces (which may or may not be in a wilderness).

WILDERNESS EXPERIENCE: The experience of being in a wilderness area.

Notes and references

1. This essay was written after attending a Forum on the Environment seminar at Battleby (Perth) in January 1996 on 'Wild Lands in Scotland'. I wish to thank the participants for helping me to crystallize my thoughts.

2. The role of wilderness in society is discussed in Fenton. J (1984) 'Even More about the Purpose of Nature Conservation.' *ECOS* **5**(4), 39-41.

3. These themes are developed in Hunter, J (1995) *On the Other Side of Sorrow: Nature and People in the Scottish Highlands.* Mainstream, Edinburgh.

4. This theme is developed in Diamond, J (1991) The *Rise and Fall of the Third Chimpanzee.* Radius, London. A summary, and its relevance to conservation in Britain is given in Fenton, J (1992) 'Man's Relation to Nature.' *John Muir Trust Conference Proceedings*.

5. See Fenton, J (1986) 'Alien or native?' *ECOS* **7**(2), 20-23. For a philosophical analysis see Foster, C. (1992) 'Aesthetic disillusionment: environment, ethics, art.' *Environmental Values* **1**(3). 205-215.

6. Levels of receptiveness to the environment are discussed in Fenton, J (1987) 'The ecology of environmentalism: some ideas for discussion'. ECOS **8**(4), 28-33.

7. Peter Taylor provides an alternative classification of wilderness in 'Whole ecosystem restoration: re-creating wilderness?' *ECOS* **16(**2), 22-28. The term 'primary wilderness' here would to some extent relate to his 'Wilderness of nature', secondary wilderness to his 'Wilderness as the wasteland' and 'Wilderness of the elements', and wild land to his 'Wild garden.'

8. The difference between artefacts and nature is discussed in Ratz, E (1993) 'Artefacts and functions: a note on the value of nature'. *Environmental Values* **2**(3*),* 223-32.

9. It is not the intention of this paper to justify why we need wilderness. There is a huge literature on this subject, and a good introduction to is given in Devall, B and Sessions, G (1985) *Deep Ecology:* Chapter *7* 'Why Wilderness in a Nuclear Age'. Gibbs M Smith, Utah.

[Author's note 2007. Arguments about the differences between 'wild land' and 'wilderness' perhaps only apply to Scotland, where there are particular sensitivities; however this essay does discuss issues relating to wilderness generally. There is often much confusion in debates about wildness because two separate concepts are involved:

1. *Ecologically wild land (i.e. nature in charge, area can be any size);*
2. *Remote land (i.e. distant from artefacts and people)*

I was also influenced at this time by Jared Diamond's book The Rise and Fall of the Third Chimpanzee*, which suggests that there has never been a Golden Age when mankind was in tune with nature – we have been making species extinct ever since we evolved!]*

From ECOS 17(3/4) 1996, pp.72-73

Letter

Political Correctness Strikes Ecology

Dear Editor,
In the current issue of ECOS *you bemoan the absence of letters to the magazine. Well, herewith a contribution.*

I see that political correctness has finally arrived in nature conservation circles: anyone reading the essays in ECOS *17 (2) by John Pollock, Paul Evans, George Barker and Trevor Lawson would realise that not only can we not use the very useful term 'biodiversity' because the public do not understand it, but also that it is at heart a xenophobic concept – conserving indigenous plants and animals discriminates against alien species!*

"Down with Ecological Imperialism!"

"Let us have some democracy in species conservation" is the cry. "Let ecosystems become more cosmopolitan!"

"Let us throw science out of the window (at least negative science, whatever that is), and bring in poetic description!"

"Let us get rid of the term biodiversity, which only refers to plants and animals, and bring back the all-embracing word Nature – which the public understands."

What a load of twaddle! I hope that it is only a lack of a scientific education that is resulting in all this nonsense! If not, than the situation is indeed dire in conservation circles, and it is back to navel-gazing while the species extinction-rate accelerates.

It's a nice idea, though: bring all the world's species together and admire the cosmopolitan diversity. Watch the lion sit down the lamb. I suppose that when North America collided with South America all those aeons ago, the more primitive South American mammals welcomed their North American cousins in with open arms: "Hello chaps, nice to see you. Let us partition our niches off

equitably, and all have a jolly good time together!"

Since Godwanaland split up, and the various parts drifted away, species diversity increased on this planet because there were more disjunct land masses for evolution to work on; i.e. species diversity is at an evolutionary high point. Bringing together species that have evolved in geographically isolated places almost without exception results in an overall loss of species. For example, introductions of species to oceanic islands has been an unmitigated disaster in terms of biodiversity. It is probably impossible to predict in advance which introduced species will become invasive.

If we carry on moving species round the world with gay abandon, then the result will be the dominance everywhere of a few opportunist species: cats, goats, corvids, seagulls, rats, etc. If we take Scotland as an example, if no action is taken, in a century or two, all native woods will be a uniform mix of Rhododendron ponticum, Japanese knotweed, giant hogweed, Himalayan balsam, Sitka spruce, pink purslane, leopard's bane Pernettya and Gaultheria, with grey squirrels, mink and sika deer as the large mammals. All our native flora and fauna will have been outcompeted. The commercial woods would all be Sitka spruce plantations, and the arable land would all be cereals – no different from any other part of Europe. Scotland will have lost its ecological distinctiveness.

Conserving biodiversity is really only about conserving local biodiversity. I find it a very useful word and a very useful concept. My definition would be: "Conserving biodiversity means conserving the full range of plants and animals indigenous to an area." It has nothing to do with maximising the number of species: part of the distinctive biodiversity of Scotland is the lack of certain species; for example, Scottish native woods (and hence its biodiversity) are characterised by a low number of tree species compared to their European counterparts.

In practice this can only be done by conserving the habitats natural to that area. If this action is carried out all over the world,

then our alien species would be being conserved – in their natural ecosystems. And, unfortunately, in the current political climate, bureaucratic costed Action Plans are the main way forward – nothing poetic about that!

Yours faithfully,
James Fenton

[Author's note 2007. It is a bit embarrassing now to read my dismissive attitude to other people's views! However, it probably expresses my concern at the move away from the scientific basis of nature conservation – in my view, we can only conserve all the species on this planet if we have a sound, scientific knowledge of ecology.]

From ECOS 20(2) 1999, pp.67-69

Scotland: Reviving the Wild

Scotland has always, simplistically, been two countries, the Celtic, Gaelic-speaking Highlands and the Anglo-Saxon, Scots-speaking lowlands. Perhaps really three countries, if you include the Norse-influenced Orkney and Shetland where people still talk about 'going to Scotland.' I will, though, keep to the simplistic Highland/Lowland divide for it is here that the main tensions arise.

Our gameplan for the lowlands

Perhaps I should go back a bit, and start by welcoming the broad acceptance of nature conservation in land-use circles, so much so that some agricultural grants can now be dependent on which National Vegetation Classification communities you have on your land. To have agricultural advisers arguing over the niceties of plant community classification would have been unthinkable only a few years ago! And it is not only farmers, but estate owners as well who have accepted conservation – if only as an excuse to restrict access, or control birds of prey (no, I know that's not fair!).

It is the lowlands, the intensively farmed-landscape, that needs nature conservation most, simply because there are no natural habitats left. We should not be surprised if common birds, bees, butterflies and buttercups have disappeared as there is nowhere for them to live. Gardens have the potential to be refuges for some of this wildlife, but if you see the amount of chemical hardware available in garden centres, it would appear that the amateur gardener needs as big a cultural shift in their attitude to wildlife as the arable cereal-baron.

However, there is now the knowledge to improve lowland habitats, from conservation headlands to new woodland planting; and some of this is happening. Perhaps if a lot more of it happens, combined with areas free of insecticides, herbicides and fungicides,

then there is hope for our lowlands. A particularly insidious modern chemical, though, both in the lowlands and uplands, is the anti-worm Ivermectin. This sterilises animal droppings with a knock-on effect to a host of other species, and an environmentally-friendly alternative is desperately needed.

Upland landscapes – the competing claims

However, I think we know how to improve the lowlands, and all we need to do to achieve this is to make all agricultural grants dependent on there being minimal areas of habitat created or maintained on each farm.

In converse, I would argue that we have not a clue as to what we should be doing to our uplands – but in spite of this we are doing it! I get very depressed when driving round the Highlands these days, as the amount of 'management', of landscape change, that has taken place in my lifetime is probably as great as since the last Ice Age. The worthy principle of intervention management to achieve desired conservation targets in the lowlands – this is being applied to the Highlands – we want to do something, to take on board the message of conservation, and go out there and save the planet!

However, I subscribe to the rather unfashionable view that much of the Highlands does not need 'saving', indeed that by 'saving it' we are reducing its overall value, and I largely, and possibly unfairly, put it down to Frank Fraser-Darling for starting the rot by calling the Highlands 'a wet-desert' and 'a degraded landscape'. Though I say it myself, recent work by Stirling University on woodland history in the Highlands supports my contentious view that much of the Highlands, but not all, are treeless through natural climatic and edaphic factors.[1] In other words, the Great Wood of Caledon is largely a myth, at least in the last few thousand years, and does not need putting back! The Highlands, indeed all of Scotland, are of course very heterogeneous, so I am making gross generalisations.

The 'designer uplands'? No thanks

Some large-scale new native woodland schemes are being put in place as I write, in some of the most sensitive landscapes in Britain, but I am afraid I greet all these schemes with horror. At the heart of my concern lies the fact that these upland landscapes, although they have been used (in that humans have modified the natural factors of grazing and burning), they have never been *designed* (although I am possibly excluding here some of the eastern grouse moors). No-one has ever consciously sat down and said, "we want wet heath there, a flush here, grassland here, and a woodland over there," and such undesigned landscapes are becoming increasing rare in Europe, if not the world. By planting trees, even in an ecologically sound manner, we are, in effect, converting a wild landscape into a designed one. And this concerns me, although it is a hard argument to justify in a rational world.

In fact the issue of wild land is coming more to the fore in the Highlands,[2] but probably too late to save large tracts of land from management. Even I, for example, can remember a time when you could travel large tracts of Scotland without ever seeing a fence. To some extent, though, it is neither here nor there whether the landscape is naturally or artificially deforested, whether it is a natural or cultural landscape – and we are going to hear a lot more about whether we are aiming for natural or cultural landscapes in the coming millennium. What we are losing is *wild land,* a unique landscape.

I do find the single-minded obsession with trees that is stalking the country very worrying. I might go so far to as to say that tree-obsessed people are imposing an alien culture on the people of the Highlands for, unlike much of England, there has not been much woodland in Scotland, lowland or upland, for hundreds or even thousands of years. Did not Samuel Johnson get excited by the one tree he saw between Edinburgh and Aberdeen at the beginning of the eighteenth century? No, our culture, upland and lowland, at least until the widespread advent of coal, has been peat and stone-based.

The once vast lowland peatbogs of Scotland have long since gone, and as they cannot be put back, we may as well plant trees as a creative conservation effort in the lowlands. But our uplands? We should certainly give any existing woodlands a chance to regenerate if they want to, but not be too concerned if they do not. We should value the wild, semi-natural, at least, wide-open moorland of wet and dry heaths, grassland and peat bog, which is the world headquarters, the core global area, for such species as *Calluna*, cross-leaved heath and bog asphodel. As for pine and birch – they are amongst the commonest species in the northern hemisphere!

References

1. Fenton, J (1997). Native woods in the Highlands: Thoughts and observations. *Scottish Forestry* **51** (3).
2. Fenton, J (1996). Wild land or wilderness – is there a difference? *ECOS* **17** (2).

[Author's note 2007. I would probably now add that the eutrophication of lowland Britain can make conservation here very difficult.]

From ECOS 25(1) 2004, pp.2-5

A New Paradigm for the Uplands

The Oostvaadersplassen in Holland, where large herbivores are left to roam free, is widely accepted as visionary conservation thinking, and we in Britain are actively discussing how to create our own 'Oostvaadersplassens'. But maybe, without realising it, we have them already in the uplands – and are now losing them owing to 'conservation action' arising from the mindset that grazing is a bad thing and the climax vegetation should be woodland.

'Wild' – the Dutch or English models?

As part of a recent conservation conference at Lancaster University, we went on a field trip to the Pennines where staff of English Nature proudly showed us an experiment in the 'wilding' of the eastern flanks of Ingleborough. To them being 'wild' meant removing all grazing and planting some trees. The next day we were back at the University to hear inspirational thinking from Frans Vera about returning wild nature to Holland – at the Oostvaadersplassen – and we heard even grander plans to create large-scale wildlife corridors from there to Germany and France.

The essence of these Dutch schemes is the reintroduction of wild herbivores. Being 'wild' in Holland does not mean excluding *grazing,* but the introduction of a range of large herbivores, in this case wild cattle, horses and red deer, and seeing what happens. These animals, of course, have a major impact on the vegetation pattern, the only constraint on their numbers being the amount of forage available in winter.

Is woodland the climax vegetation of the UK uplands?

Frans Vera argues convincingly in his book *Grazing Ecology and Forest History*[2] that large herbivores have always been part of the natural ecosystems of Europe, with the result that the natural

vegetation of temperate lowland Europe would not have been closed high forest but a mosaic of forest, parkland, scrub and grassland: grazing prevents woodland from regenerating under its own canopy, which thereafter cycles to grassland and thence to thorny scrub. Trees can only regenerate in this thorny scrub, which subsequently reverts to woodland. This theory is fine for fertile, lowland Europe, but what happens if you apply the same principles to the infertile uplands of north and west Britain, where the thorny scrub species of hawthorn and sloe are rare or absent? What is there to protect the trees from grazing?

Another recent book *A Highland Deer Herd and its Habitat*[3], which looks at the impact of deer on the Letterewe Estate in Wester Ross, argues that there is no such thing as 'overgrazing' where wild herbivores such as red deer are concerned, because grazing levels are naturally constrained by the winter availability of forage. Likewise, on St Kilda, where there have been feral Soay sheep for centuries, if not millennia, sheep populations go through a four-year cycle, with high mortality when numbers exceed winter food supply.

Although there are pockets of native woodland, upland Britain is largely treeless, and the general mindset to date has been that, as woodland is the climax vegetation, the uplands must have become treeless through human activity, and remain largely treeless through 'overgrazing'. Hence a lot of current conservation effort in the uplands is devoted to reducing grazing levels and planting trees. In the Scottish Highlands, for example, it is argued that a grazing level of four red deer per square kilometre is needed in order to achieve natural regeneration of woodland, although this low figure is considerably less than that which the vegetation can support.

Is moorland the climax vegetation?

If, on the other hand, it is a general principle that the number of herbivores is limited to what the vegetation can support, then perhaps, in upland Britain, we need to remodel our whole mental landscape: we need to get away from the 'woodland as climax'

model. Maybe our upland landscape is relatively natural in terms of vegetation pattern, albeit natural grazing by red deer having been replaced by domestic sheep in many places?[4] And lack of winter feed will still have limited the number of domestic stock on the hill (as did the presence of wolves in the past).

Hence there is a possibility that the current vegetation pattern of the unenclosed areas of upland Britain is within the range of possible natural variation.[5] Pollen analysis indicates that there were more trees in upland Britain in the distant past, but natural soil deterioration over the past few thousand years (leaching, iron pans, lack of worms, mor soils, etc.) has perhaps made conditions less suitable for tree regeneration, so that even a relatively low grazing pressure will keep the landscape open.

Woodland can still be a component of upland vegetation, particularly on crags and in gullies where soils are better and grazing less. Likewise, Wistman's Wood on Dartmoor and Keskadale Wood in the Lake District, and a much greater range of examples in Scotland, indicate that woodland can regenerate in the presence of grazing; and, in any complex upland landscape, grazing will vary temporally and spatially, giving some opportunities for localised woodland. For example, in some areas of the Lake District oak can be seen regenerating in bracken, and, in Scotland, rowan and birch can be seen regenerating in gorse and oak and birch on slopes of deep heather. Hence, even with heavy grazing, trees will persist in at least some upland landscapes, but perhaps our mistake is to expect lots of them!

If there has been anthropogenic woodland loss, it is most likely to have taken place on the steeper, well-drained valley sides, but even here can we be certain that any anthropogenic loss has changed the natural endpoint of a mostly treeless landscape? As peatland and mor soils spread over much of the flatter ground, herbivores tend to become restricted to the remaining better soils, resulting in a direct competition between woodland and animals. In other words, if, instead of a 'woodland as the climatic climax model', the 'natural

decline' model fits the facts better, humans may only have locally accelerated an existing trend.[5]

Are the uplands our ' Oostvaadersplassens'?

At the conference referred to above, there was much talk of how to create our own Oostvaadersplassens in Britain. But maybe in much of upland Scotland at least, we have had our Oostvaadersplassens all along – large tracts of land with significant numbers of indigenous herbivores, resulting in a relatively natural vegetation pattern. Maybe, we have them throughout upland Britain, the only difference being that sheep have replaced red deer. It is a common observation in Scotland, that, if sheep are taken off a hill, red deer come in – perhaps confirming the perfectly reasonable theory that forage availability determines grazing levels.

However, if we already have our upland Oostvaadersplassens, we're also in very real danger of losing them, as the demand from conservationists is to reduce *grazing* to very low levels, and large-scale native woodland planting schemes have been created that fragment the predominantly open landscape.

At the Oostvaadersplassen there are wild cattle and horses in addition to deer. However, what is not certain is the range of natural herbivores upland Britain would naturally support, for the Oostvaadersplassen has very fertile soil whereas much of upland Britain is infertile and may not be able to hold such a range of species. Likewise, it is hard to say whether, in general, carnivores keep herbivore numbers down to below the vegetation's carrying capacity. In Yellowstone Park, for example, both wolf and red deer numbers are going up simultaneously![6] There were wolves in upland Scotland until 300 years ago, and the landscape has been largely treeless since way before then, which suggests that the presence predators has not kept the grazing to a low enough level to allow woodland to be the dominant vegetation.

Norway is often given as a model of what the UK uplands 'should be', but that country has a complex landscape and a

different ecology; for example, unlike oceanic climates, the presence of winter snow-cover both protects vegetation from grazing and keeps herbivore numbers down.

A new paradigm for the UK uplands?

Moving away from the idea that woodland is necessarily the climax vegetation on our unenclosed hills opens up whole avenues of new thinking. It also means we would have to rethink our conservation action: if the vegetation pattern of our hills is relatively natural, then maybe there is little short-term conservation action that is needed – other than ensuring that grazing continues and burning is within the bounds of natural variation; long-term there are possibilities of reintroductions of native large mammals, although we need to be careful that the ecological conditions are right.

There may be some areas where grazing is obviously way above the natural ecological carrying capacity (*e.g.* parts of Wales or western Ireland), but on the whole perhaps we should let our uplands be wild, and let the vegetation pattern develop under the influence of grazing, and concentrate our action on areas that really need more wildlife and are fertile enough to take it – the lowlands. And the current large-scale plans for Wicken Fen and Epping Forest give us cause to hope that the lowlands of Britain can be made wild.

For the uplands, though, we need to stand back and rethink their whole ecology, so as to ensure that well-intentioned 'restoration' does not end up making them less wild and turn them into designed landscapes. Letting our hills be wild means having no predefined outcomes, but letting nature decide the vegetation pattern – under the influence of grazing which is ideally from indigenous herbivores, but in their absence maybe sheep are as good a species as any.

References

1. See, for example, Special issue "Grazing and Grazing Animals". Vakblad NATUURBEHEER, 41 jarrgang, May 2002.

2. Milner, JM, Alexander, JS, Griffin, AM (2002). A Highland Deer Herd and its Habitat. Red Lion House, 2002.
3. Vera, FWM (2000). Grazing Ecology and Forest History. CABI Publishing.
4. See, for example, Fenton J (1997). Native Woods in the Highland: Thoughts and Observations, Scottish Forestry Vol. 51. And Fenton, J (2001). Native Woods in the Highlands: Doubts and Certainties. Scottish Woodland History Discussion Group: Notes VI, 2001.
Fenton. J (2003). Deciding on the Balance Between Moorland and Woodland in the Scottish Uplands: an overview at the landscape Scale. La Cañada No 17.
5. Levy, S (2002). Top Dogs. New Scientist 2 Nov 2002.

This essay was one of three in ECOS 25(1) 2004 on the theme of *Wild Thoughts.*

The other two were:

Self-Willed Land: Can nature ever be free?

by Mark Fisher (pp.6-11)

To Wild or Not To Wild: the perils of 'either-or'

by Peter Taylor (pp.12-17)

The same issue then had a follow up discussion, of which James Fenton's contribution is given below. Mark Fisher's can be found in the same issue, pp.21-22, and Peter Taylor's pp.23-24.

From ECOS 25(1) 2004, pp.18-19

Wild Thoughts Followed Up

I agree with Peter Taylor[1] that palaeoecological studies are essential in understanding the nature we have today: Jared Diamond in *The Rise and Fall of the Third Chimpanzee* argues that there never was a Golden Age when humans were 'in balance' with nature, citing the extinctions of large animals that took place when humans colonised new areas. Thus, as Peter argues, we can never return to a pre-human complement of species, or distribution of vegetation.

The argument of what is 'natural' is basically a semantic one: humans have coined the word 'natural' as a contradistinction to 'artificial' – it is a useful way of looking at the world to separate that which is given a *priori* and of which humans are not in charge (*i.e.* nature), and artefacts. If the world 'natural' is used to include humans, then everything we do is, by definition, natural – even making species extinct – and no consistent rationale for conservation will be possible (this is not to deny that we have not evolved from nature, and there will have to an arbitrary cutoff point as to when humans became a species). I find it a very useful word, as it helps us make sense of the world: before humans existed, everything was natural – now there is a mix! And, of course, it is rarely black or white: I might create a pond, for example, *i.e.* an artefact, but its ecosystem could be natural (*i.e.* is identical to a natural analogue). If the word 'nature' is dodgy, as Peter states, then all of us involved in nature conservation might as well give up and go home!

Additionally, one needs to be very careful with the word 'natural processes': nutrient cycling and chemical pathways, for example, are natural processes, although the origins of the chemicals can be anthropogenic; *e.g.* loss of species by adding fertiliser (eutrophication) is a 'natural process', as is global warming from increased anthropogenic CO_2 emission. On analysis, what is meant

by ‘natural processes’ becomes synonymous with ‘processes with no human involvement’, which, in my view, becomes synonymous with ‘wild’ – letting nature be in charge’.

If we are to let nature be in charge in certain areas, *i.e.* be wild, we have to mean what we say, and get rid of our preconceptions of how the system should operate: we must have ‘undefined outcomes’ with respect to habitat and species composition. As indicated above, we cannot return to an earlier ‘natural pattern’. This is not to say, though, that we should not be seeking an understanding of natural systems, so we can get an idea of how natural systems operate: I was arguing that such an understanding leads to the perfectly reasonable hypothesis that, in the infertile uplands, natural successional trends (in the presence of grazing) lend greater credence to ‘the natural decline’ woodland model, than the alternative models of ‘woodland as climax’ or Frans Vera’s ‘cyclical model’ (although all will have validity at a given location). Lee Klinger, for example, has argued that peat bogs are often the endpoint of succession as they are more self-buffered against environmental change (although there is evidence that blanket peat itself has a limited life time).

I would thus argue, in contradiction to Mark[2] and Peter[1], that much of upland Britain, particularly in the far north and west, are the ‘wildernesses’ that they say we do not have in this country (albeit lacking some of the mammals, although this has not affected the vegetation pattern): it is just that their preconception, or mental image, of the ‘wilderness as woodland’ is incorrect – at least in infertile upland Britain. And such infertile areas (low potential biological productivity) will not support such a range of species, including large mammals, as in lowland Britain. Hence one must be very wary of generalising across the UK. My fundamental point for upland Britain is that, even if humans have modified the natural processes of grazing and burning, the uplands would look much the same even if they had not: *i.e.* the current vegetation pattern lies within the range of natural variation.

Likewise, in Scotland, and naturally (through chance) their

natural species complement would vary: some may have had large herbivores, some predators, some none, etc, so we cannot say "the system should have this or that complement". Perhaps letting things go wild means getting rid of the word "should"? However, the fact that Scottish moorland vegetation appears pretty uniform, regardless of its history, implies that the general successional trend has been towards open moorland. Also, I do not think size is always relevant, as Mark suggests: some of our most perfect 'wildernesses' could be very small off-shore islands that have never experienced human impact (other than global warming and input of air-transported anthropogenic chemicals). Likewise, I have created pond in my garden, but I am not in charge of the underwater ecosystem: the balance of amphibians, invertebrates, plants, *etc*. in it is probably indistinguishable from a nearby natural pond, and is, in effect, a wilderness! (I have been watching pond skaters on my pond, and their social system appears to be a more liberal democracy than, say, ants or bees. However, the great diving beetle appears to have eaten them or chased them away, which shows how liberal democracies can be upset by bigger, violent bullies!)

I do not think either Peter or Mark are willing to fully let go, or 'let nature be in charge': they assume that 'having nature be in charge' will automatically mean more species and diversity: this may or may not be the case at a given locality. Allowing nature to be in charge may well result in bracken invading a species-rich sward, or foxes and crows being more common than other species: we have to get rid of value judgements – accepting things we do not like as much as things we do like. This, though, is where size does become important: the bigger the geographical area, the more scope for conserving the full range of species.

Peter states that "deer numbers suppress vegetation and eat regeneration." I would argue strongly that different grazing pressures result in different vegetation patterns, and generally, in upland Scotland, evidence suggests that the greater the grazing level the greater the number of vascular plants (which is not to say they

will all be flowering as, for, example in a Yorkshire hay-meadow, which is perhaps a cultural artefact and the wrong model to hold in one's mind!). Deer have been around for millions of years, and have always been eating trees, and trees just have to put up with it! If they cannot, they become rare! It is a difficult to answer the question "what is the natural grazing level", as people argue either way that predators affect herbivore numbers. I prefer the theory that grazing is limited by forage availability in the limiting season (*e.g.* cold or dry). Perhaps the only way to find out is to stop managing and see what happens, adding missing species where possible: culling deer because we perceive there are too many to me appears the opposite of letting nature be wild!

In upland Britain, my fear is that we already have a (relatively) natural, wild network of moorland core areas, that we are replacing with woodland corridors – based on a dubious reading of the ecological history. Woodland corridors are also ideal conduits for the spread of introduced species like grey squirrel and sika deer: our approach to alien species, though, deserves a whole new debate, but in my view, conserving biodiversity means conserving the full range of species and habitats indigenous to an area.

I have been arguing for a long time that nature conservation is a broad church, and that different approaches are necessary in different places (see, for example, my article in *La Cañada* No.l7, spring 2003). The three main approaches relate to:

1. Wild areas: those with no predetermined ecological outcomes;
2. Nature reserves: prescriptive, with defined outcomes;
3. The rest of the countryside: nature has to fit in around humans.

I believe that in wild areas or wildernesses, we have to let go our preconceptions, as well as nature!

Notes

1., 2. References are to the articles in *ECOS* 25(1) mentioned at the end of **A New Paradigm for the Uplands** above.

From ECOS 27(1) 2006, pp.14-16

What is Natural?

A response to Mike Townsend's 'Who said people are unnatural?' in ECOS *26 (2*

In his short article 'Who said people are unnatural? – Tree planting or natural regeneration?' *(ECOS* 26 (2) 2005 pp 96-8) Mike Townsend raises again the issue of what is meant by natural. It seems to be common nowadays to argue that humans are part of nature, and to deduce from this that our actions are natural; however, although the former is true in a limited sense (in that we, as entities, together with our human nature, are given *a priori)* it does not logically follow that our creations and actions are natural.

Natural, unnatural, and artificial

As a species we classify the world to help us make sense of it, and we have chosen to classify two classes of object in this world, *viz.* natural objects, which are given *a priori* (*i.e.* not created by humans) and artificial objects, which are created by humans (my dictionary defines 'artificial' as 'not natural'). Hence most of the universe is natural, but in our little corner there are a lot of things created by us – increasingly so, as the years go by. Following from this, actions or processes which we are not in charge of we call 'natural' and those we are in charge of we call 'artificial'.

The word 'natural' only has meaning in relation to its opposite, 'artificial', in the same way that 'good' only has meaning in relation to 'bad' or 'quick' in relation to 'slow'. If we define everything as natural the word loses its meaning: all our actions become natural, including destroying wildlife and making the planet sterile; indeed, it becomes impossible to produce a rationale for nature conservation because everything we do will by definition be 'natural': the developer destroying a wildlife site will argue that his is a natural

action, or it would be logical to argue that a rampaging alien species is a result of natural causes!

The otherness of nature

No, we have to take a firm stand and argue strongly that nature is apart from us, and that nature conservation is fundamentally about conserving this 'apartness', about conserving what we have inherited *a priori*. We ourselves are natural, having evolved from nature, and we depend on nature, but our actions and creations are, by definition, artificial. As an aside, to say that we depend on nature is true but somewhat meaningless: of course we could not exist without a planet to live on and we rely on some natural processes, but could do without others!

Hence, in response to Mike Townsend's second question, planting a tree is an artificial action, us humans deciding what species to put where and, in effect, creating a designed landscape: planting is imposing our will on nature, for we cannot be certain that nature would have 'planted' the same number or type of trees, or be certain that nature did not 'want' a clearing in that particular location, or, indeed, we cannot be certain that nature would have wanted trees as opposed to an open landscape. By contrast, with natural regeneration, it is nature, not us, deciding on the planting pattern. Hence there is a fundamental difference, although, as Mike points out, it is not always as black and white as this because natural regeneration itself may be dependent on human intervention. But planting, by definition, is always 'unnatural'.

Human decisions or nature's?

I would agree with Mike that whether planting or natural regeneration is the best approach to woodland creation depends on the particular circumstances: one is not intrinsically better than the other. Although everything we do is unnatural this does not make it "invariably wrong". The classification of the world into both natural entities and artefacts does not imply any value judgement, *i.e.* any

implication that one suite of entities or actions is ‘good’ and the other ‘bad’. From a nature conservation perspective, in some locations action will benefit nature and in others not. For example, we will need intervention in the first instance to expand the current area of Wicken Fen. However, a very positive development of recent years is the emergence of the concept ‘rewilding’, whose essence is about humans pulling back and letting nature make the decisions. I was heartened to hear at a recent Wildland Network seminar that the Wild Ennerdale project has no defined endpoint for the landscape: this lack of defined endpoint is the essence of wilding and wilderness (unless you believe that nature is teleological!). It is not us who will decide the vegetation pattern but nature.

Mike, and others, argue that allowing such non-intervention can be defined as “intervention of a sort”. To me this makes a nonsense of language! Although we may make a decision for an area to go wild (become natural), by definition ‘doing something’ is not the same as ‘not doing something’. Black does not equal white!

Entities and artefacts

I often feel that a course in logic and semantics would benefit conservationists! We are ‘apart from nature’ by definition: it was our ancestors who decided this, but separating us out from nature helps us to make sense of the world! I find it useful to classify this keyboard I am using as an artificial entity and the flies who are trying to hibernate in my window frame as natural entities! Likewise, my table is an artefact, albeit natural entities have been used in its creation. I would like to live on a planet where some areas are artificial but also where many areas are natural; I see the need for both Natural England and for English Heritage (or their equivalents) – this separation of functions illustrating how, in the everyday world, and whatever Mike argues, people at large realises that there is a distinction between natural entities and culturally-derived entities, between natural and artificial.

Although it is relatively easy nowadays to make this distinction,

it is interesting to wonder at what time in human evolution did it become meaningful? Hours of debate are possible here, although it will be a bit like trying to determine when does black become white or a species become conscious!

[Author's note 2007. I seem to have spent a lot of time over the years arguing that natural means not artificial!]

From ECOS 27(1) 2006, pp.16-19

What is Natural? A Reply

From Mike Townsend

As James says we classify the world in order to make sense of it. These classifications are often oppositional, natural to unnatural, native to alien, good to bad. Generally their meanings are socially constructed, that is they have no fixed reference in objective realism, but are culturally and temporally situated and produced through a process of linguistic evolution and contested debate (a bit like the one we are having here). Thus whilst it may be that most people will have a sense of what is natural, this will not be identical for any two people and need not be static over time.

Superior to nature?

Whether as a result of Cartesian dualism or the theological doctrine of the 'Great Chain of Being', western humankind has come to see itself as separate from nature and, perhaps more significantly, superior to it. This is not a unanimous doctrine now or at other times. Many eastern religions and indigenous cultures would take a very different perspective of our relationship with the rest of the natural world. I make this point not as a naive and nostalgic evocation of other cultures or an appeal to 'new-ageism', simply to suggest that a view of the separation of man and nature is neither

universal nor timeless.

The dualism of oppositional pairing frequently also expresses a hierarchy of values. My concern that triggered the initial article is that the use of the term ‘natural’ has become conflated with ‘good’, which, by opposition, suggests that ‘unnatural’ or artificial is ‘bad’. Natural has become more that just a descriptive term for that which is not artificial or not by human agency, it has come to connote a wider sense of the ‘good’ and the ‘right’. The problem is that it represents more than just a useful way of classifying the world in order to understand it, it becomes a shorthand, or worse an irrefutable dismissal, of underlying arguments; thus my concern over the (oppositional) nature of the tree planting versus natural regeneration debate. James is absolutely right; tree planting can be viewed in no other way than an action of human agency. But because it is made oppositional to ‘natural’ regeneration, which by connotation is ‘good’, planting is viewed as ‘bad’.

To suggest that if we consider humans as part of nature we thereby give licence to all human acts to be considered ‘natural’ and therefore permissible would be to abandon all sense of moral distinction purely on the basis of the oppositional characteristic of ‘natural’ and ‘artificial’. As I made clear in the original article, it is not the same to say, “... If we regard everything we do as natural, everything we do is morally justifiable”.[1]

Moral considerations

If a developer destroys wildlife habitat, I oppose this not on the basis that it is ‘artificial’ but that it is morally wrong. In my view it takes no account of the moral significance of the non-human life forms it destroys. Hedgerows are artificial but I don’t therefore regard them as a bad thing and insist they are all ripped out, on the contrary I would think this a morally wrong act. I might even intervene to repair the damage of modern agriculture by planting or gapping-up hedgerows; an artificial action, an act of human agency, but not therefore one that, simply on the basis of not being ‘natural’,

is therefore right or wrong.

Indeed if the developer were genuinely to argue that his/her actions were 'natural' he/she would by implication, have to accept a position in which, with humankind in nature, the moral community would have to be expanded to include other forms of non-human life. As Aldo Leopold puts it "a land ethic changes the role of *Homo sapiens* from conqueror of the land-community to plain member and citizen of it. It implies respect for his fellow members, and also respect for the community as such".[2] The developer would have to give due moral consideration not just to the instrumental value of the habitat to serve human ends, but to its intrinsic value and that of the life it supports. Under these circumstances protection is more likely, rather than less. The current practice, developed from a utilitarian position, weighs the value of the benefits (to humankind) of the development, against the costs (to humankind) of the loss of wildlife habitat. Playing by these rules has already led to the loss of significant areas of habitat and the wildlife it supports.

Weighing up nature's services

I agree with James that to say we depend on nature is true but meaningless, which is why I didn't say it! However, whilst it is also probably true that we rely on some natural processes but could do without others, this is a nice distinction to make. The developer might argue that the loss of habitat is fine on the basis that we don't need its services. It contains nothing of immediate or obvious utility other than the satisfaction it brings to conservationists. Its value can be compensated by suitable reparation or the creation of habitat elsewhere, or simply 'trumped' by the greater net social value of the development. Environmental history is littered with examples of actions that were taken on this basis and which had unforeseen consequences. To think we can decide which natural processes we need and which we can do without is, I believe, illusory, or at least has a high degree of uncertainty.

Exploring 'what matters?'

The point I attempted to make in the short article on tree planting v. natural regeneration was that we should set aside the arguments about relative naturalness and allow debate about what actually matters in each particular situation. In what way are our actions morally defensible or desirable, how do we decide when to intervene and when not, what is it that makes our inevitable impact on the planet reasonable or otherwise?

I agree with James that planting is demonstrably artificial in the sense he defines it, but so is natural regeneration as it is practiced. It does not follow that both are equal. In general and by choice, I would regard a process with less intervention as preferable, but not always and not without consideration of the circumstances. The raising of seedlings in yogurt pots by school children, later to be planted in a small wood in their school grounds, is the sort of activity frequently, and regrettably in my view, summarily dismissed by many in conservation. Yes it's an imposition of humankind, and planting a human artefact, but I wouldn't simply dismiss it on this basis. There are occasions and circumstances when tree planting might be regarded as the 'good' choice and others when it might be regarded as the 'bad' choice.

Deciding or not on the end points

In response to the comment about logic, it is not clear to me that I have transgressed, although my poor phrasing may have made my intent ambiguous. My point is that within the context of the UK, a landscape that is overwhelmingly a human artefact, owned, managed and monitored, the adoption of the technique of' non-intervention' requires a conscious decision. 'Non-intervention' is an action, often requiring the removal of livestock or the cessation of some management regime. Even where it is adopted with no deterministic end point, which I applaud, there is usually a get-out clause relating to invasive 'alien' species or the control of deer numbers. In this respect non-intervention is not a 'not doing

something' option but at one end of the spectrum of' doing something' options. None of which argues against an enthusiasm for re-wilding of the sort James describes at Wicken Fen and Ennerdale, and which I share.

I maintain my position that humankind should be regarded as within nature. This does not cause me an identity crisis. I can still perceive the non-human world as different, I can still believe we have faculties which other species do not possess, just as the reverse is true. While viewing humankind embedded in nature I can still take a view on whether I believe something is a human artefact and whether I believe this, morally, to be good or bad. Like James I can still tell my keyboard from a housefly, and like most people I can still hold a sense of what is natural and what is an artefact without it troubling my belief of humankind embedded in nature.

In the praxis of daily life we inevitable lean heavily on the assumptions and definitions that allow us to make sense of the complexity of the real world. We also, regrettably, succumb to the compromises of the system within which we live. This does not preclude us from occasionally challenging these assumptions. The world changes and our assumptions must occasionally change with it. Just, as James says, at some stage our ancestors decided we were to be separate from nature, we can choose to view ourselves within nature.

References

1. Townsend, M. (2005) 'Who said people are unnatural? – Tree planting or natural regeneration?', *ECOS* **26** (2), pp. 96-98
2. Leopold, A. (1966) *A Sand Country Almanac and Sketches Here and There,* Oxford University Press, pp.43-53

EPILOGUE
January 2007 [Not previously published]

Nature and Religion

An essay on the 'nature of nature' – covering a lot of ground in a short space!

There have been many articles in *New Scientist* recently on the origins of religion, but, to me, they all somehow miss the point, not quite getting to grips with the complex and mysterious psychology of the God/man relationship as demonstrated, for example, in the Bible. Perhaps Robin Dunbar is on the right track when he asks what kind of mind is required to hold religious beliefs (*New Scientist* 28 January, p.32), identifying that at least second-order intentionality is required. It would seem plausible, though, that religion arose at the same time as reflective consciousness evolved, at the same time that humans began to become self-aware and to ask the 'why' question.

For, looking around, early humans would have noticed, and reflected on, the following paradoxes of nature (nature here being defined as an entity or process that is given *a priori*, *i.e.* as found, not in human gift):

Life depends on death: this is particularly true for animals as no animal can survive without destroying part or all of another living being.

A large proportion of young of a given species are destined to die before gaining maturity ('sacrifices to the food chain' to quote Gary Snyder).

Nature can be both predictable (*e.g.* tides, seasons) *and unpredictable* (*e.g.* storms, avalanches, disease).

Nature can be both discriminating and undiscriminating.

Nature can be beautiful; nature can be dreadful (nature is beautiful, nature is dreadful). There are those perfect days when it great to be in the outdoors, there are those dreadful days when home is but a far-off dream.

Water or sunshine can be life-giving and life-destroying; snow can be soft and gentle or hard and dangerous.

Life is full of joy and energy; life is full of death and decay. A dog running with joy, tearing apart a rabbit.

The above can be called 'the nature of nature' or, for want of a better term, 'the psychology of nature'; it is certainly not something that humans have invented, but represents abstract concepts that would only become apparent to a being with a reflective consciousness.

Scientific understanding of the mechanisms behind the above 'truths' does not make them go away: indeed the psychology of nature is something we are stuck with, like gravity or electromagnetic radiation. The concept of 'opposites' seems to be part of this nature: fast or slow, light or dark, heavy or light, predictable or unpredictable, positive or negative, alive or dead… and certainly these adjectival opposites only have meaning in relation to each other: for example, the concept slow has no meaning except in relation to fast. Indeed, the essential symmetry of opposites is something we intuitively seek in nature. It is interesting to speculate whether a universe could exist where a 'triality' is the norm rather than a duality! But I digress.

It is hard to pin down what this psychology of nature actually is, but it would seem to have been termed 'God' by our ancestors. In certain religions God has the same dual or paradoxical nature as 'nature' itself, comprising, to quote Carl Jung in his inspiring book *Answer to Job*, a 'totality of opposites': for example, the goodness of God in the Gospels compares to the dreadfulness of God in the Book of Revelation; the compassion of Allah to the believers compares to his lack of compassion for the sinners.

Perhaps this psychology of nature is something that Richard Dawkins, as a physicist, is not aware of or dismisses too readily in his ejection of God. However it can explain some rather puzzling actions common to many religions such as that of sacrifice: sacrifice is merely mirroring what people see nature doing and, as such, is sympathetic magic. Incidentally, although given the lie by Sir James George Frazer in his book *The Golden Bough*, sympathetic magic still holds a powerful sway over many people and is responsible for the continuing decline of many species: for example, collection of what is seen as the virile part of virile animals to promote virility in humans, has almost led to serious decline of rhinoceros species. But I digress again!

There is a complex and mysterious psychology at work here as pointed out by Jung, but which does make logical sense. Jung explains how God, in unfairly punishing Job, had to make retribution to mankind by sacrificing his only Son: in the end, though, God could not cope with this attempt at complete goodness as evidenced in the Book of Revelation.

But Jung points out that, while God is omnipotent, he does not possess or use reflective consciousness: in effect, as nature, he is amoral, all goodness and all badness (Satan, surely, can only be the other side of God's nature). Hence, when he wrongs Job, this gives moral superiority to mankind: the Word was made flesh, God becomes man.

This can only happen once humans gain their reflective consciousness, or the brain has become sophisticated enough to realise this unconsciously, and nature is seen as unfair: perhaps, as social biology tells us, the concept of fairness is essential to ensure the survival of an intensely social and conscious species such as ourselves. Perhaps we see 'good' as something that promotes social unity and 'bad' as something that breaks it down. It is seeing nature as 'unfair' that gives us humans moral superiority over nature: both the beauty and cruelty of nature are real, but we humans believe the good to be better – we have added a moral dimension. However,

there is nothing we can do about this essential unfairness and this can grate with us, although we can use science and technology to mitigate it as much as we can.

We humans, who are in effect ‘nature made conscious’ (what else can we be?), who are ‘made in God’s image’, the ‘microcosm of the macrocosm’ to use mediaeval language, exhibit the same paradoxical and contradictory nature as nature itself: for example, we seem to be psychologically incapable of being good all the time! Incidentally, we find it hard to cope with this burden of consciousness which is perhaps why we at times try to escape through using psychoactive drugs. Maybe we also try to rationalise this unfairness of nature by codifying nature into dogma (mainstream religion), thereby gaining psychological security, although perhaps causing nature to lose its numinosity and mystery.

Science may explain the essential unfairness of nature, whether natural catastrophe or the lottery of genetics and health, but this will never stop us as seeing it as unfair! Nature, as something independent of us will always exist (after all, it has the whole universe to play with), so perhaps God, with his paradoxical nature, will always be with us.