

Protecting Nature

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Humanity has evolved over millions of years in an intact nature and it continues to depend on an intact nature for its future development. But humanity also depends on nature as the provider for its needs. Maintaining the intactness of nature and exploiting her contain contrasting, even mutually exclusive elements. Only a carefully balanced compromise, based on scientific knowledge and on insight, can disentangle this Gordian knot.

There is a rapidly growing necessity for protecting nature from increasingly excessive impacts due to the activities of one of her millions of species that has relatively recently entered the scene: *Homo sapiens*. What drives *H. sapiens* to invest considerable thought, work and money into responding to that necessity? Which are the forces that incite our intentions for protecting nature?

In essence there are 2 different types of such forces. The first type is primarily based on egocentric perspectives. It focuses on how we can maximise and sustain the exploitation of nature for human ends. The second type is primarily based on eco-centric (altruistic) goals. It focuses on how we can protect nature for nature's ends.

The egocentric forces are very strong. They are based on the powerful drives that characterise all forms of life: exploitation of opportunities and maximisation of advantages. They place human interests at the centre of their ideas and actions. A thought-provoking book documenting, evaluating and discussing aspects of utilising nature for human ends has recently been presented by Ray & McCormick-Ray (2004).

The eco-centric forces are still very weak. They reflect rare potentials of humanity: insight and ethics. Eco-centric forces place the intactness of nature at the centre of their thoughts and actions. For a significant compilation of papers addressing primarily eco-centric aspects consult the ESEP Books authored by Cairns (2002, 2003).

In the long run, egocentric forces can be successful only if the eco-centric forces are allowed to attain more weight. Essentials of the compromise sought have received attention in 2 articles by myself (Kinne 1997, 2003).

In the following text I briefly consider 3 basic fields that are characteristic of our attempts to protect nature:

conservation, environmental protection and endangered species research.

Conservation concentrates on the protection and sustainable use of nature's resources for human utilisation. Such utilisation requires scientific knowledge, practicable jurisdiction, and effective rules of management. The major aims of conservation are to further natural products and to reduce their damage or neglect, and thus to support human well-being. Curiously, the natural products concerned are usually considered possessions of *Homo sapiens*—predominantly of the present generation.

Environmental protection is frequently interpreted and implemented in a biased way. It is concerned too much with protecting those aspects of the environment that are essential or beneficial to a single form of life: *Homo sapiens*. The consequence? Egocentric environmental protection tends to increase the overall environmental debt.

Both conservation and environmental protection, as presently practised, embrace more anthropocentric elements than is often realised or admitted, and more than can be considered adequate for an unbiased assessment of natural ecosystem dynamics. Hence they may fall short of contributing significantly to protecting nature in the long run.

For long-term health and development of nature and for maximising her capabilities to support human life, nature needs, first of all, to be relieved from increasing impacts caused by ourselves. Human-deformed ecosystems will recover best if left alone. But such a hands-off policy can be applied only in special situations (protected areas, reserves). Usually, more complex (and less effective) human help is on the agenda. Such help often requires more in-depth knowledge than is available and it faces several obstacles: It is not easy to prove and quantify the effects of human impacts, to define and implement restorative measures, or to find the necessary funds—especially in the presence of conflicting interests. In addition, relieving nature from human impacts is often not rewarded by immediately visible benefits for humankind. Rather, such benefits are likely to take considerable time to manifest themselves.

A generally acknowledged fact is that human demands grow exponentially and thus tend to exceed ecosystem carrying capacities. And let us not forget:

Today's human societies still live to a considerable extent on the products of a past, intact nature—a nature now rapidly losing its intactness and richness. Hence a reduction of human impacts becomes a *must*; it can be expected to yield more benefits for nature and for long-term human survival than any other measure presently executed or advocated. The alternative—to manage man-altered ecosystems—is a dubious concept because we do not know enough about ecosystem dynamics to safely conduct large-scale experiments in nature. The potential costs of healing sick ecosystems are likely to spiral and to soon become impossible to pay for.

Building up the considerable energy and willpower necessary for achieving a reduction in human impacts on nature requires: (1) A new concept of ethics. The Eco-Ethics International Union (EEIU) presents and practises such a new concept: eco-ethics (for details consult www.eeiu.org). Since its foundation in 1998 the Union has grown impressively and is now operating in all parts of the globe. Eco-ethics includes the development and implementation of stewardship for nature and her constituents. (2) A strengthening of foresight capacities. (3) The creation of a strong public perception that can—together with scientifically proven facts—facilitate the overcoming of political inertia and the formation of a new political will. (4) The translation of the insight gained into concerted international action.

Endangered Species Research (ESR), the title of our new journal, highlights specific aspects of the situation addressed above. ESR focuses on species whose existence is threatened by human influences and on investigating ways in which these life forms can be saved. Protective measures include: changes in human awareness and behaviour, creation of protected areas, habitat care (protection or restoration of existing habitats; creation of new habitats), establishment of reserves, reduced hunting or collecting pressures, breeding and release of offspring and thus support for the species' reproductive potential and its chances of survival.

What is so tragic about the disappearance of an endangered species? We know that species come and go. They have a limited life span (even though some of them are known to have populated earth for millions of years). Practically all species that existed in the distant past have become extinct. Without such extinction present-day life could not have evolved.

The tragedy is that the rate of extinction has begun to increase at an alarming rate and that this increase is largely a consequence of human activities. The tragedy is that we are failing to compensate for our faults. Each extinction marks an irrevocable loss of a special genetic construction, of a specific form of life, of something that has evolved over thousands or millions of years. Each species is unique, its loss an irreparable pauperisation of nature.

It is here that Endangered Species Research can help to turn the tide: by sounding an alarm while there is still time for action; by finding ways of protecting and assisting endangered species; by initiating and organising specific rescue measures. Simple examples of what can be done with a lot of enthusiasm but limited resources are presented in the first articles published in this journal (Kinne 2004, Kinne et al. 2004a,b).

I do not wish here to elaborate further on the many ways in which Endangered Species Research can fulfil an important function in protecting nature. But I do wish to say that I am convinced that this journal will quickly become a very important source of knowledge needed for healing the wounds that *Homo sapiens* has inflicted and continues to inflict on nature.

Conclusions. *Homo sapiens* is the only species that can inflict severe damage on nature and is the only species that can develop ethics aimed at protecting nature. Development and implementation of eco-ethics is the key for long-term human survival. It should be a basis for all our considerations and actions of how to utilise nature for our own ends.

A human-undisturbed nature does not need protection. A nature suffering from perpetuated heavy human disturbances becomes difficult, if not impossible to protect. In the relationship between nature and humanity, the latter must adapt to the requirements of the former, not vice versa.

Protection requirements grow as a function of disturbance intensity. At present, the need for protection is increasing dramatically. The point of no return, at which the requirements can no longer be met and hence the damage becomes irreversible, is close if not already surpassed in many cases.

Each human-caused species extinction is a witness against us, an eternal document of our failures.

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