

# Bioethics in the zoo from an Italian perspective

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## ABSTRACT

A review of bioethics as applied to Italian zoos is presented. Considering how strong are animal rights arguments in Italy, it is crucial zoos defend the cultural and ethical value of live animals in captivity. Although improvements in captive husbandry should be a long-term development, we maintain that if zoos fail to inform public opinion about the current critical environmental situation in the 'wild', they are not achieving their main mission.

Key words:

Oscar de Beaux, animal welfare, conservation education, biodiversity.

## RIASSUNTO

*La bioetica negli zoo italiani.*

*Viene presentata una sintesi circa lo sviluppo della bioetica, con particolare attenzione alla sua applicazione nei giardini zoologici italiani. Considerata la forte presenza di argomenti filosofici legati ai 'diritti degli animali' nella società italiana, sembra cruciale che gli zoo difendano il valore culturale ed etico del mantenimento di animali vivi negli stessi. A tal fine, insieme al sempre necessario miglioramento delle condizioni di vita degli animali mantenuti in cattività, è necessario che gli zoo informino in maniera incisiva l'opinione pubblica sulla sempre più critica situazione degli ecosistemi e della biodiversità globale. Solo in questa maniera è possibile aspirare a raggiungere i loro obiettivi di conservazione biologica.*

Parole chiave:

Oscar de Beaux, benessere animale, biodiversità.

The culling of a young male giraffe at the Copenhagen Zoo in March 2014, his public autopsy and subsequent feeding of his meat to lions raised vociferous protests all over the world. In Italy as elsewhere the decision of the Danish zoo was heavily criticized by animal right groups and zoo people. However, the issue of population management was scarcely discussed. Most zoos, especially in North America, generally rely on chemical fertility control or physical sexes separation, as is also sometimes done by wildlife managers and 'sanctuaries', to limit population growth. However, there is great concern regarding the behavioral and physiological consequences of breeding suppression for both welfare and conservation reasons (Penfold et al., 2014).

Culling of overabundant animal populations is a common management tool, as is the control of pest species such as rats and mice. The fact that also several zoo populations suffer overabundance problems is a good news from a conservation perspective. As a solution, surplus individuals can be sent outside the breeding programs without any guarantee regarding their future welfare. Many zoos prefer to sell surplus individuals to dealers and utilizing the income to maintain their institution and

collection. Apart from ethical considerations, this kind of solution only removes the problem elsewhere. The recent escape and death of a young giraffe sold from a Czech zoo to a circus in Italy highlight the kind of problems that may arise. The merit of the Copenhagen choice has been those of informing public opinion about an overabundance issue in successful zoo breeding programs. Ironically, animal rights advocates had traditionally attacked zoos because of their – presumed - dependence from wild animals.

## BIOETHICS BIRTH AT THE ZOO

It is useful to stress that bioethics concerns toward the natural world was firstly explicitly theorized by an Italian zoologist and zoo-man, Oscar de Beaux (de Beaux, 1930; fig. 1). de Beaux had worked at Stellingen Tierpark in Hamburg between 1911-1914 and later, as director of the Natural History Museum in Genoa, he created a municipal zoo in the Nervi Park (Gippoliti, 2006).

The first concern for de Beaux in his booklet "Etica biologica" (de Beaux, 1930; fig. 2) was the respect for any life form at the species level and below (as he cites specifically several threatened 'subspecies' such as the Maremman wild boar or the Italian roe deer).



Fig. 1. Oscar de Beaux (1879-1955) director of Museo Civico di Storia Naturale "G. Doria" and founder of the Municipal Giardino Zoologico in Genova-Nervi.

He must be considered a precursor of biodiversity conservation (sensu Wilson, 1992) while Aldo Leopold a few years later stressed, in agreement with the different history of North America environments, the ethical mission to preserve ecosystems integrity and 'wilderness' (Leopold, 1933).

Interest toward conservation of wildlife and species diversity has been named 'speciesism' from animal rights groups and severely criticized. However, interest for wildlife preservation, species protection laws and the establishment of protected areas represent an important step toward current awareness of the fragility of planetary 'web of life'. Furthermore, biodiversity conservation is also a social and political goal, as, at least in the long-term, ecosystem services provide tangible benefits to local human communities. So, while animalism is often depicted as encouraging a modern attitude to other living being, it can also be considered a development typical of affluent societies with several unclear aspects (Herzog, 2012). Thus it is highly questionable that animal rights could be a reasonably ethical basis for environmental work in most of today's biodiversity hotspots through the world (see Capoccia, 2013 for influences of animal rights philosophy in wildlife conservation in Kenya). Further, the trends of human population growth gives very few hopes to biodiversity (Gerland et al., 2014) even if the issue has been removed by the environmental agenda.

## ETHICS IN THE ZOO

According the view of Oscar de Beaux, animals in zoos must primarily accomplish an educational goal, as other institutions such as museums and botanical gardens. According him, the zoological garden is "an efficient school of bioethics, i.e to respect the existence of life units, to respect of life, an almost safe index of the civility level reached by a nation" (de Beaux, 1933). His opinion has been shared by other zoo men and conservationists, such as Bronzini (1953, 1998), Cassola (1988), Gippoliti (2011). All these authors believe that a lack of education, 'awareness' and 'familiarity' was at the basis of lack of appreciation and respect towards animals and biodiversity in general. It is thus believed that 'sacrifice' of a few individuals can have a much greater benefit for a much larger number of individuals in the wild, and ultimately, on our own species. The biographies of some relevant Italian conservationists such as Longino Contoli and Fulco Pratesi (in verbis) seems to support de Beaux's arguments, even if we should not ignore other variables such as family education.

In early years, great losses were often encountered in the capture and transport of wild individuals (Kawata, 2014). Yet it is clear that species such as the Prezewalski horse (fig. 3) owe their continue existence to those early days capture expeditions

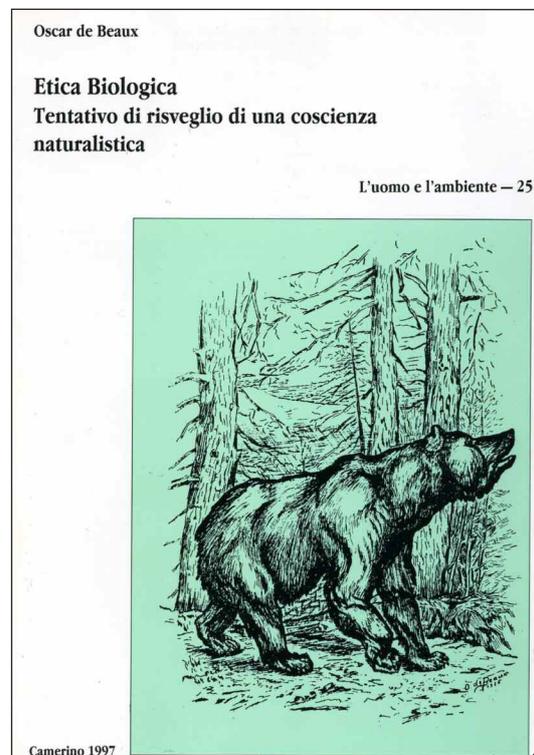


Fig. 2. Cover of "Etica Biologica" in the re-edition of 1997, edited by Franco Pedrotti.

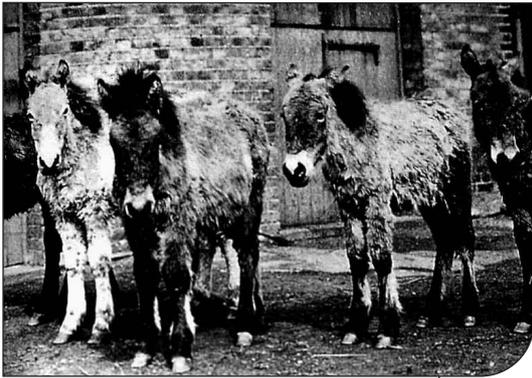


Fig. 3. Newly captured foals of Przewalski's wild horse at the Zoological Society's Gardens (1902). These are among the founders of the captive stock that saved the species from extinction.

(Boyd & Houpt, 1994). On the other hand, wildlife suffered extensive persecution well before zoos were created. In the Near East domestication of animals and plants in the 'Fertile Crescent' was accompanied by a severe reduction of wildlife (Ponting, 1992). Closer to our days, first explorers of the Black Continent, such as Vittorio Bottegò, were enthusiastically welcomed by local populations when meat of elephants and other large mammals was made available to them (Bottegò, 1895). Furthermore, we should not forget that ivory and slaves were historically two of the primary reasons for Arabic and European expansion in Africa through nowadays Southern Sudan in the second half of XIX Century (Gray, 1961; see also Conrad, 1902, for the exploitation of ivory in the Congo Basin). Nowadays, we should be aware that most conservation problems have social roots (fig. 4). Going back to zoos, it is obvious that captive individuals should be treated according their biological needs.

According to Bronzini (1975), isolation from other conspecifics should be against the 'biological ethic'. Coherently, in early 1950's he expressed a negative opinion regarding the maintenance by the Rome Municipality of a single wolf in a tiny cage below the Capitolium in Rome (Gippoliti, 2014b). According to Hediger (1970), the father of zoo biology, culling of surplus is a preferable option that breeding control for wild captive animals. It is unlikely that a unique solution may be applied to all organisms from great apes to mice, yet it seems reasonable that zoos maintain a focus toward populations and species long-term conservation, including behavioral competences.

Zoos have been accused of encouraging an anthropocentric view of the world (i.e. document of Italian psychologists), but this has been long rebutted by Bronzini (1975) who consider anthropocentrism one of the reasons for our

misunderstandings of animal needs. It seems that zoos simply invite us to recognize human responsibility toward the whole biosphere and try to encourage public opinion to care for wildlife and ecosystems, in full agreement with modern environmentalism.

Initiatives to prohibit the maintenance of some species in captivity (as cetaceans) seems largely born from an emotional basis only, an understandable but largely futile reason as seen from a cetacean perspective. In a 25 year period (1981-2005) the number of bottlenosed dolphins *Tursiops truncatus* stranded along the Italian coasts was 694 (Bearzi et al., 2008). Would it not be better to ask ourselves if the circa 25 *Tursiops truncatus* currently held in captivity in Italy should play a greater role in the understanding of physiology, behavior and diseases, or in public educational awareness as an aid at least some of hundreds individuals that die for direct or indirect anthropogenic (pollution, fisherman bycatch, etc.) causes along our coasts?

## CONCLUSIONS

Biological ethic as generally utilized, recognize that species and lineages are the primary concern for biologists and conservationists. This means that

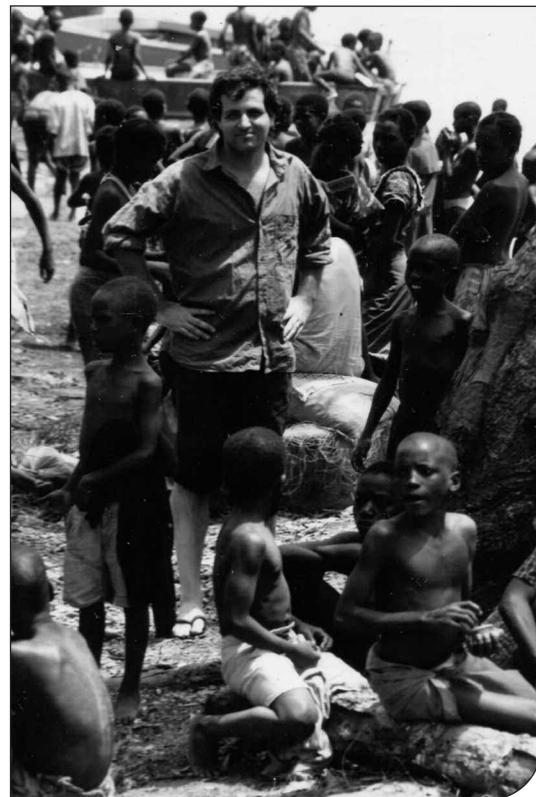


Fig. 4. The present author during a pause in primatological fieldwork (Cantanhez Forest, Guinea-Bissau, 1994). Most of conservation work has to deal today also with human needs and welfare.

individuals cannot be the focus of education and conservation programs. That said, zoo biologists have long recognized the intellectual properties of individual animals (Knottnerus-Meyer, 1925), yet their modus operandi must be to follow species' natural history as benchmark to objectively evaluate welfare issues in wild animals (Gippoliti, 2014a).

Despite the fact that most 'zoos', as well as natural history museums, include conservation education as one of their primary goals, there are few attempts to deal with specific environmental issues of local or international relevance, and to evaluate the results in an objective way (Pearson et al., 2014). Possibly, the assumption of a more active role in conservation represent the real ethical must for modern zoos and aquaria.

No paradise exists outside zoos, today less than ever. Zoos and other cultural institutions have an ethical mission to fight a reductionist view of the environment that is totally focusing on the fate of few individuals while species and ecosystems leave the planet one by one.

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