

## The Management of Crocodilians in Australia — Introductory Comments

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IN THE 1984 America's Cup yachting challenge, off Rhode Island, USA, Australia showed itself as a slow starter but a powerful finisher. In the matter of crocodile management, we appear to be following that same pattern.

It is an area where in the past we have been subject to criticism both at home and abroad. Some of this was perhaps justified. For example, in the early days there was insufficient consultation with Aboriginal landowners, who have title to vast tracts of land containing crocodiles, and who, in some areas, have totemic relationships with crocodiles. However, most criticism was utter nonsense and highly misleading to those outside the country. For example, it was claimed in a report to CITES by the IUCN Crocodile Specialist Group that Australia was holding skins of the saltwater crocodile (*Crocodylus porosus*) in storage, awaiting the change from Appendix I to Appendix II of CITES!

But that is all history now. The Northern Territory of Australia has developed sound management programmes for its crocodiles, which incorporate limited utilisation, and the experiences gained will hopefully assist both Western Australia and Queensland in the future.



Fig. 1. A 5.2 m *Crocodylus porosus* caught in a popular fishing area in the Finnis River, N.T.

It is often difficult for people from other countries, and even for residents of Australia, to understand the complex relationships between the Australia States and the Federal Government under our Constitution. Yet these have a bearing on the evolution of conservation and crocodile management programmes in the country and will continue to do so in the future. The control of wildlife is a State responsibility, and the Federal Government has no legal powers to stop trade or the shipment of wildlife between States. However, the export from Australia of wildlife, or products derived from them, is a Federal responsibility.

Historically, during the late 1940's through to the mid-1960's, when crocodile hunting was at its height in Australia, most conservation services as we know them today were non-existent or embryonic to say the least. There was no specific Wildlife Department at the Federal level (responsibility lay with the Department of Primary Production), and there was a general lack of co-operation and co-ordination between State Wildlife Services. A group of State and Federal officers met sporadically at what was termed the "Faunal Authorities" conferences, to discuss various issues, but the meetings were up to four years apart and as a policy making body, it had no teeth.

Wildlife management was in the hands of each State or Territory, who acted for the most part quite independently and sometimes in opposite directions. The powers that the Federal or Commonwealth Government had over the export of fauna and products derived from them, were often simply delegated to State authorities. For example up to the early 1960's, there were no officers of the Commonwealth Department of Primary Industry stationed in Darwin and only a small cell of the Customs Department there.

During this period concern about the environment and conservation were not active public or political issues. No non-government conservation organisations as we know them today were

operating, and crocodiles were very low on anyone's list of priorities — except of course for the shooters.

Western Australia should be given the credit for the foresight it demonstrated when it included freshwater crocodiles (*Crocodylus johnstoni*) on its protected species list in 1962. In 1964 the Northern Territory followed suit with "freshies", which were included within the first comprehensive wildlife legislation in the Territory. But the sole biologist in the Northern Territory at that time resided in Alice Springs, in the desert, and was concerned mainly with kangaroos and arid zone fauna.

In the late 1960's, the Australian Fauna Authorities recognised that heavy crocodile hunting had depleted the populations of saltwater crocodiles, to the extent that the industry had virtually cut its own throat. Moves were made, again first in Western Australia (1969) but followed closely by the Northern Territory (1971), to give full legal protection under State law to "salties". Soon afterwards the Commonwealth Government exercised its overriding constitutional powers to ban the export of crocodile skins from Australia, and the Queensland Government joined in the legal protection of crocodiles at the State level (1974).

In the early 1970's, only fifteen years ago or less, several things happened which have had great significance to the conservation and management of crocodiles in Australia. Roughly in chronological order, but not necessarily in order of importance, these were:

1. Sydney University, led by Harry Messel, embarked on a comprehensive survey of saltwater crocodile populations in the rivers of northern Australia;
2. The State and Commonwealth wildlife authorities organized themselves into a formal Council of Nature Conservation Ministers (CONCOM) advised by a standing committee of the Departmental Heads of the various wildlife authorities. A spin-off from this move was a strengthening of most wildlife services throughout Australia;
3. Public interest in environmental issues increased significantly and non-government conservation organizations expanded in number and influence;
4. Australia began taking increased interest in international conventions, particularly those relating to the conservation of natural resources, such as the International Wetlands Agreement, Migratory Birds, CITES, and World Heritage Sites;
5. Aboriginal issues came to the forefront. Edward River Crocodile Farm was one of several projects designed for the economic benefit of Aboriginal

communities, and the Commonwealth Government introduced legislation conferring title of substantial tracts of land (including extensive areas of coastline in the Northern Territory) to Aboriginal traditional owners.

By the late 1970's, the surveys carried out by Sydney University had begun to produce some hard data on northern Australia's crocodile populations. The Northern Territory Parks and Wildlife Commission, now the Conservation Commission of the Northern Territory, had embarked on its own crocodile research programme, with emphasis on "freshies" in the first instance. Within the Northern Territory, we began to understand the nature of the management problems posed by crocodiles, many of which we suffer in common with other countries, and to address them in a rational way. Responses have included:

1. A major expansion of the research effort;
2. More vigorous pursuit of enforcement strategies;
3. Attention to habitat through the reservation of suitable crocodile country (greatly aided by the declaration of greater Kakadu National Park by the Commonwealth Government) and through the joining with the Department of Primary Production and the Commonwealth Scientific and Industrial Research Organization (CSIRO) in a feral animals control programme within the wetlands;
4. Close consultation with Aboriginal land councils and the commercial fishing authorities in order to resolve mutual problems with crocodiles;
5. The initiation of an intensive public education programme on how to co-exist "safely" with crocodiles;
6. Support for ranching and farming ventures which we believe will place crocodiles and their habitats in a new and better light, as well as giving the developing Northern Territory a new industry consistent with World Conservation Strategy guidelines; and,
7. Last, but not least, the 1984 application to CITES, which presents a plan through which the long-term conservation of saltwater crocodiles in the Northern Territory can be assured.

Since protection crocodiles have fortunately been "doing their own thing" — courting, copulating and consolidating their position. The populations have grown in strength and the average size of individuals has been steadily increasing. However, the recovery of the crocodile populations has been exceeded by the growth of the human population in what was previously a remote, sparsely populated, underdeveloped region.

Inevitably the increasing numbers of people will lead to increased pressures on the wild crocodile populations. It is happening now. Conflicts of interest have arisen and will continue to do so in the

future. Only with co-operation between all parties genuinely concerned with crocodile conservation, and with comprehensive conservation programmes, such as that outlined in the Australian application to

CITES and those included in the various papers presented at this conference, can the long-term needs of both crocodiles and people be satisfied in an amicable way.