## JUST MY OPINION: A COMMENTARY ON ZOOS AND THE PRIVATE SECTOR

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Recently, I was asked by one of the GHS board members (Bill Brant) to respond to some of the criticism leveled at zoos by members of the private sector. I was reluctant at first, owing to the unreasonably strong opinions some individuals hold in regard to zoos, but after meeting "Sleazeweasel" Morgan at the International Herp Symposium (IHS) in New Orleans and seeing that he was still intact, I decided it would be a copout not to respond. The opinions expressed herein are solely my own and may not reflect those of my colleagues.

Most of the negative sentiments expressed by members of the private sector are based on economics and not on a clear understanding of the position of zoo professionals. For instance, some individuals criticize our reluctance to participate in captive reproductive programs with private herpetoculturists. This is not entirely true, for there has been, and continues to be, some very productive, collaborative efforts between zoos and some private breeders. However, the needs of these two groups are not always conducive to parallel efforts. It would be naive in the economically strained environment of today to say that some decisions made in zoos are not based on economic incentives. However, most of our motives are not driven by financial gain. In fact, the reptile department at the Dallas Zoo has given away well over \$100,000 worth of animals over the past 10 years or so. In addition, we have placed hundreds of other specimens out on breeding loan during the past several decades. Many of these animals were not just sent to other zoos, but universities, private herpetoculturists and institutions that have exhibited reasonable stability in terms of animal management programs.

Some private breeders complain because we don't release Australian species (i.e., *Aspidites* sp.) into the market. We have been asked by Aus-

tralian officials who have provided these herps to us not to commercialize in Australian animals, including captive-hatched offspring. While selling these animals may not directly violate Australian laws, our institution has an agreement with Australian officials to distribute these captively generated animals gratis to accredited institutions or universities. We may not jeopardize our relationship with the Australians for the benefit of financial gain.

Beyond the above points, one of the overriding considerations taken into account when our staff is solicited for herps by a member of the private sector is: When has this individual or institution offered any support for our research, education, or conservation programs without attaching strings? The answer, with few exceptions, is not very often. We are under no obligation to sell animals to anyone and if we choose to do so, it is only to those institutions or individuals we implicitly trust and that have historically proven that they are not just interested in personal gain. Selling captive offspring has not contributed to my pay check or the overall financial condition of the department as a whole, because funds generated from these sales are placed in the general zoo society fund, so there is little incentive for us to tolerate any amount of hassle or risk. In other cases, the decision not to deal with some individuals or institutions (including other zoos) has either been based on past experience or ethical considerations. Many zoos refuse to deal with some of the larger importers because of their questionable business practices. For example, during the past few years, moderate numbers of wild-caught green tree monitors (Varanus prasinus) have been showing up on price lists around this country. This is a protected species in Indonesia (Wildlife Protection Ordinance No. 134, 1931 and Wildlife Protection Regulation No. 266,

1931, Annex 1) and export permits are usually only issued for scientific or educational purposes. Some exporters have been circumventing this problem by calling these animals V. kordensis on permit applications which they may or may not know to be an invalid name. It is conceivable that some importers are aware that this is an invalid name not supported in scientific literature, yet they continue to bring these specimens in anyway. Whether or not importers agree with these regulations is irrelevant as we simply cannot afford to become involved with institutions that either don't know the laws or choose to ignore them. Beyond the questionable legal practices of a few well-known dealers, there are ethical concerns that we must take into consideration as well. A good example of a poor ethical stance is the present situation in Madagascar where large numbers of indigenous herps are being exported worldwide. Some of these species (i.e., Phelsuma standingi, P. guttata, P. flavigularis, Uroplatus henkli, Zonosaurus quadrilineatus, Chamaeleo balteatus, Mantella cowani, Brookesia perannata [Brygoo et. al., 1973; Glaw and Vences, 1992; Klaver and Bohme, 1986; Nicoll and Langrand, 1989]) have limited ranges and we have no idea how they, and other Malagasy animals, are being impacted by this massive collecting.

Don't dealers that benefit financially from these animals have some responsibility to help fund research efforts to make this determination? If exporters and importers don't make some attempt to police themselves, it is conceivable that many of the species from this area may be elevated to CITES Appendix I, making it difficult to obtain many species we see commonly today. A valuable source of income for many people in that country will be impacted if a partial or total ban of exportation is enacted. This is clearly a case where short-term economic gains have become more important than the long-term consequences to the wildlife in that beleaguered country and it is inappropriate for us or anyone else to support this trend in any way.

A second question I am commonly asked is: What is a zoo's function? Some individuals in the private sector contend that zoos provide little more than entertainment. I must admit this is true in some zoos, but it is narrow-minded to apply this definition to all zoos. While, out of fiscal necessity, entertainment is certainly a part of a zoo's function, we also make some unique and tangible contributions in other areas. Zoos traditionally justified their existence through educational programs and by claiming to be "arks for the future." However, recent studies indicate that the ways in which zoos have traditionally approached education needs reevaluation (Marcellini and Jenssen, 1988; Murphy and Mitchell, 1989; Serell, 1978).

The Dallas Zoo recently installed 11 prefabricated hands-on educational modules in our reptile building (Reptile Discovery Center) designed in conjunction with the National Zoo and Zoo Atlanta. The design of these modules was based, in part, on the above-mentioned studies. Visitor interviews conducted at all three zoos, before and after installation of the modules, indicate that they have had a positive impact on the visitor experience. Not only did the average time spent in the building increase, but, according to visitor interviews, visitors were more sensitive to herps, meaning that at the very least these people would be more tolerant of these animals in the future. As part of this program, small school groups (20 to 30 students) are isolated in the reptile building for several hours with trained volunteers. Access is limited to the general public, so as not to distract the groups. The children are then encouraged by the volunteers to explore the hands-on modules along with some written material provided by our education department. A puppet show, with a herp theme, is currently being developed as part of this project to make it easier for younger children to relate. In addition, according to a recent phone survey conducted by staff members at the Dallas Zoo, we receive an average of 6000 phone calls each year from the general public (D. T. Roberts and L. A. Mitchell, pers. comm.). A large percentage of these calls were questions concerning husbandry, local reptile identification and general natural history information. Obviously education is an important part of what we do, but we still have a great deal to learn in this area. Captive reproduction in support of conservation has also been used as a clarion call for zoos. This is usually based on the premise that in some cases captive hatched offspring could be reintroduced to augment decimated wild populations. This idea may have some legitimacy in the future, but it has only been implemented on a small scale in a few instances (i.e., the golden lion tamarin and Arabian oryx) and we still have a great deal to learn about this process. Some private herpetoculturists have also tried to link captive reproduction with conservation (i.e., "conservation through commercialization"). Their contention is that captive reproduction reduces pressure on wild populations, and by placing value on certain species, there will be more incentive to save them from extinction.

There is little evidence to support either of these notions and an examination of one of the many dealers' lists available today suggests the opposite may be true. According to CITES, over 68,000 ball pythons (*Python regius*), 11,000 savannah monitors (*Varanus exanthematicus*), 7,000 *Phelsuma lineata*, 4,500 *Phelsuma madagascariensis*, and an additional 7,000 unidentified *Phelsuma* were exported in 1990 alone. These are just a few examples, but numbers for many other surveyed species are just as high. Numbers of exported specimens for each species listed above dramatically increased over the previous five years. These numbers do not include specimens taken for the skin trade.

Captive reproduction programs have made some important contributions, but in an area unknown to most people. As an example, captive-hatched/born naive (inexperienced) specimens offer many opportunities for research. Zoo personnel have traditionally focused their efforts on applied research. More recently a few zoo people have begun to utilize these living resources, in collaboration with academic colleagues, for behavioral research with broader implications. Behavioral studies can provide insight into some aspects of natural history, and only through understanding can we hope to make an impact on conservation.

I spent some time in the private sector before moving into the zoo field and continue on a limited scale to produce captive offspring at home. While I understand that many individuals simply maintain private collections because they enjoy reptiles, I also fully appreciate the economics of herpetoculture. It is not my intent to condemn anyone for making money, although I wish I were, but only to point out that there is more than just one side to this issue. There are certainly justifiable criticisms that can be leveled at zoos (no doubt that I will hear some in the near future), and I have tried to outline a few above. Lack of space does not allow me to discuss all aspects of this complex issue here.

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Reprinted with permission from the Gainesville Herpetological Society Newsletter, Volume 11, Number 1. Winston Card is senior reptile keeper for the Department of Herpetology at the Dallas Zoo. He is currently studbook keeper for Asian forest monitors kept in North American collections, and also writes a column for the bi-monthly herp hobbyist magazine The Vivarium. In addition, he has published a variety of technical papers in the Journal of Chemical Ecology, Journal of Herpetology and Herpetological Review, as well as numerous articles for several popular herp hobbyist magazines.

