

Aviculture: An Underestimated Conservation Tool?

by Laurella Desborough, President,
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Historical records of the development of human civilization indicate that aviculture—the keeping and breeding of birds in captivity—has been practiced for thousands of years. Ancient Indian and Eastern manuscripts depict Indian Ring-necked Parrots (*Psittacula krameri*) and African Grey Parrots (*Psittacus erithacus*) being kept as pets and relate stories of the “remarkable talking ability” of these birds. The ancient Chinese often kept singing birds such as Pekin Robins (*Leiothrix lutea*) as caged birds. Archaeologists report that Meso-American cultures kept and even bred macaws in captivity for the production of feathers to be used for trade purposes and ceremonial uses. The present day domestic chicken, derived from the captive breeding of the Red Jungle Fowl (*Gallus gallus*) in ancient times, is seldom recognized as a direct and positive result of aviculture.

Traditionally birds have been kept in captivity for a variety of reasons—utility purposes, aesthetic appreciation, as companion animals or as sources of amusement or study of their interesting and unusual behaviors. Indeed, the study and keeping of birds in captivity has contributed much to man's understanding of nature and the world around us—a Darwin's Finch (*Geospiza magnirostris*) and the concept of evolution, the Graylag Goose (*Anser anser*) and Konrad Lorenz's studies into the understanding of animal behavior, and the use of the domesticated Homing Pigeon (*Columba livia*) as one of the earliest developed forms of “rapid communication.” The keeping and breeding of birds in captivity is not a new concept and the practice of aviculture as a human endeavor has a lengthy established history. Although seldom

acknowledged, aviculture has, in many ways, had a tremendously positive impact on mankind and the quality of life as we know it today.

Aviculture Offers Benefits

You are no doubt wondering what this has to do with CITES and endangered species? A lot, both directly and indirectly. While aviculture is not a truly recognized science, aviculture offers a wealth of benefits to the sci-

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entific and conservation communities. To the scientific community in generating knowledge, information and understanding, the very fundamental quest of all science. And to the conservation community in providing basic and fundamental understanding of avian requirements under controlled conditions including many useful insights, technologies and other benefits to *in situ* efforts for threatened or endangered species. Established avicultural protocols and husbandry techniques can provide direct benefits to the long term support of wild populations. How?

Direct Benefits to Conservation

First, the establishment of long term self-sustaining captive populations can provide a positive contribution to the global conservation effort in assuring a readily available supply of captive bred avian specimens for the international trade. In this context, captive breeding can dramatically reduce pressures on wild populations. The international trade has been identified as one of the primary factors negatively impacting wild populations of a number of species, particularly parrots.

Second, the establishment of long term self-sustaining captive populations can provide a source of captive bred specimens to augment wild populations. While this conservation strategy remains in its infancy and there are many hurdles that must be overcome to make this a real and viable applied concept, the use of captive bred specimens to replenish or rebuild wild populations has already been done successfully—the Peregrine Falcon (*Falco peregrinus anatum*), the Whooping Crane (*Grus americana*), and the California Condor (*Gymnogyps californianus*). More can be done in this area if this concept is effectively and comprehensively studied, refined and developed. Ill-fated release programs to date, have more often than not, been the result of ill-fated planning and lack understanding with virtually no input or support from the avicultural community. To categorically dismiss the potential contributions from the avicultural community in establishing long term sustaining captive populations to this end, is not in the interest of a broad based conservation arsenal.

In balancing the “conservation equation” all elements of a comprehensive conservation strategy should be included. The utilization of captive

breeding is a vital component in this equation. There are numerous instances of avicultural techniques serving as valuable conservation tools.

Furthermore, the breeding of birds in captivity, in general, does not represent end-stage usage as does commercial breeding of many other animal species for skins, pelts, etc. Onerous and over-zealous regulation of trade in legitimately produced captive bred birds may radically alter and negatively impact the role of the international avicultural community in serving the interest of the global conservation effort.

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Indirect Benefits to Conservation

Indirectly, aviculture benefits avian conservation efforts in providing an armory of technical support in an array of products and services that would not otherwise have been readily available, e.g., sexing techniques, incubation techniques, veterinary diagnostics and services, etc. In addition, a significant benefit that often totally overlooked or ignored is that captive bred exotic birds act as good will ambassadors for the cause of avian conservation. Individuals who have little or no exposure to wildlife or the wonders of the natural world, often have little understanding or concern about the urgent need for habitat preservation and wildlife conservation. Aviculture introduces avian species to many individuals who might otherwise fail to develop a conservation commitment and sense of caring and understanding. The keeping and breeding of birds in captivity, therefore, helps provide an opportunity to broaden the

base of support for the cause of avian conservation both in the wild and in captivity.

AFA's Mission Statement

The mission of the American Federation of Aviculture is to promote the advancement of aviculture through educational activities. These activities are developed specifically to increase avicultural knowledge, skills and awareness, and to support conservation and research projects that benefit avian species.

The American Federation of Aviculture supports the scientifically valid efforts of CITES in protecting and preserving threatened and endangered species. Good science is the best foundation upon which to build a body of regulations and controls that are truly beneficial to the subject species. The American Federation of Aviculture strongly advocates the use of valid scientific data in the formation of any proposed international trade restrictions issued through CITES.

The American Federation of Aviculture has participated as an NGO in the CITES conferences since the mid-eighties. This year the American Federation of Aviculture presented documents to COP 10 for consideration by the delegates regarding: (1) trade in captive bred specimens (2) DNA fingerprinting technology and (3) the facilitation of international shipments of animal tissues suspended in formalin for bio-medical evaluations and disease diagnostics.

The American Federation of Aviculture has provided this publication in the interest of improved understanding of our organization's support of and commitment to conservation issues and to better clarify the positive contributions that can be made by private sector participation in avian conservation efforts. The potentials of the private sector are enormous and should be acknowledged. More birds are bred in captivity each year by private aviculturists around the world than in all the zoos and research facilities combined. Many avian species adapt well to captivity and, in certain instances, the numbers bred in captivity each year are believed to be far greater than the total existing wild populations. ➔

The American Federation of Aviculture's Red Siskin Project

(AFA RSP)

by Yvonne Patterson, Kansas City, MO

The Red Siskin (*Carduelis cucullatus*) is an endangered finch from Venezuela. Its vermilion red and jet black coloration is the primary reason for its appeal and subsequent demise in the wild. This colorful finch has been commonly kept by local peoples for many years, in addition to being captured for export to Europe and the U.S. for cross breeding with the common canary to produce brighter colors in canaries.

In 1985 the Venezuelan Audubon Society's Conservation Committee sent a plea to the AFA for help in saving the Red Siskin. Since the late eighties, an AFA breeding consortium run solely by dedicated aviculturists, has worked to help save this endangered species. In order to be accepted into the AFA Red Siskin Project one must have previously worked successfully with some of the difficult to breed finches.

The participants in the AFA RSP come from a variety of professions: they include scientists, a physicist, certified public accountants, psychologists, and many others all of whom are dedicated aviculturists.

The project participants cover the costs of cages, food, disinfectants, electricity and all other expenses, with the exception only of necropsies and shipping fees, which are reimbursed by the project. At eight to nine days of age all siskin chicks are closed banded. The

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project breeders are meticulous about the timing of this procedure because birds at an older age have feet too large to be pulled through the metal