

the  
accreditation standards and  
related policies

2010 edition

**ACCREDITATION STANDARDS  
and Related Policies**

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***IMPORTANT NOTES REGARDING THESE STANDARDS:***

**Accreditation and certification:** These standards are for accreditation applicants and certification applicants alike. In the case of certification, an education program is not required, nor are standards directly related to the presence of the visiting public. However, if the facility has an education program, and/or hosts public groups on a regular basis, all related standards must be met.

**Order:** Placement of items in this document has no bearing on importance to accreditation processing as *all* areas are considered pertinent for the operation of a professional institution.

**Subjectivity:** Due to the large number of variables existing between institutions, some standards necessarily allow for certain levels of subjectivity by both the Visiting Committee and the Accreditation Commission.

**Visiting Committee:** The Visiting Committee is an arm of the Accreditation Commission. The Accreditation Commission is the final authority in interpreting these standards.

**CEO/Director:** The person with the authority and responsibility for the operation of the institution: other titles may include president, chief executive officer, superintendent, supervisor, manager, or other similar title.

**Governing Authority:** The agency which has authority for governing the operations of the institution: such may include city, county/provincial, or federal government bodies, or private corporation, foundation, society, or other similar entities.

# Accreditation Standards

## ***PREAMBLE***

Zoos and aquariums accredited by the Association of Zoos & Aquariums (AZA) are continuously evolving. Standards are constantly being raised, ensuring that animals in AZA institutions are receiving the best possible care from highly qualified staff, in modern facilities that represent the state-of-the art in our industry. 21st century AZA accredited institutions and certified related facilities are expected to be leaders in the field and to embrace the highest quality facilities, programs, and staff available. Animals must be well cared for and displayed in naturalistic settings that provide an educational experience for visitors and an appropriate enriching environment for the animals, including proper social groupings. The species included in the collection must be managed on a regional basis to ensure long-term genetic viability of the species, which means careful planning of resource allocation, ex-situ breeding, and ex-situ/in-situ conservation and research.

The phrase “modern zoological practices and philosophies” refers to practices and philosophies that are commonly accepted as the norm by the industry. The word “practices” represents the tangible while “philosophies” refers to an overall perspective. AZA accredited institutions and certified related facilities must be incorporating modern zoological practices and philosophies as basic tenets.

Primarily, AZA standards are *performance* standards (i.e., measuring the level of achievement considered acceptable to fulfill a performance characteristic, and choice in method for meeting the goal). This differs from *engineering* standards, where exact and precisely measured steps are required to fulfill an engineering characteristic, with little or no variation in method for meeting the goal.

## **1. ANIMAL COLLECTION**

### **General Considerations:**

**Institutions that have contact areas should develop a written policy regarding protection for the animals in the area and safety for the visiting public. (See pages 37 - 39 of these standards for further information.)**

### **1.1. Local, State and Federal Wildlife Laws**

- 1.1.1. The institution must comply with all relevant local, state, and federal wildlife laws and regulations. It is understood that, in some cases, AZA accreditation standards are more stringent than existing laws and regulations. In these cases the AZA standard must be met.

### **1.2. Animal Care Manuals**

- 1.2.1. As available, the institution must have copies of all approved AZA Animal Care Manuals (ACMs) for species within their collection, and ensure that all animal care staff has access to them.

Explanation: It is recommended that institutions regularly review the guidelines and suggestions within the ACMs, and tailor their animal care programs and exhibits accordingly.

### 1.3. Documents and Policies

- 1.3.1. The institution must have an Institutional Collection Plan (ICP). The ICP should be re-evaluated and updated at minimum every five years.

Explanation: The ICP should include a statement of justification for all species and individuals in the institution's planned collection. The ICP should consider such criteria as: •status in the wild, •status in zoos and aquariums, •existence and priorities of cooperative management programs, •ability to maintain the species in both a physically and psychologically healthy environment, •exhibit value, •exhibit suitability (may include climatic considerations), •need for husbandry and other research, •recommendations stated in AZA TAGs' Regional Collection Plans, and •any other issues specific to the institution's mission and vision

- 1.3.2. The institution must have a written acquisition/disposition policy that, at minimum, incorporates all requirements contained in AZA's acquisition/disposition policy. (See pages 57 - 61 of these standards for further information).

Explanation: Animal acquisition/disposition policies (including breeding loans) should be continually reviewed to keep them current with all local, state/provincial, regional, national, and international wildlife laws. Such policies must also incorporate all rules/regulations/resolutions adopted by AZA regarding hunting ranches, animal auctions, research, pets, participation in SSPs, TAGs, and CAPs, and other issues involving the acquisition and disposition of wildlife.

Records must be maintained for all transactions involving acquisition and disposition of animals to and from the collection and must include the terms of the transaction. In making the decision to surplus an animal(s) to a non-AZA accredited facility, the institution must ensure that the receiving institution is willing and able to provide proper care for the animal(s) and that the disposition is done in accordance with AZA's Acquisition & Disposition Policy.

Copies of all relevant permits, importation papers, declaration forms, titles, and other appropriate documents establishing a paper trail of legal acquisition must be maintained whenever possible. When such information does not exist (the institution's maintenance of confiscated wildlife) an explanation must be provided regarding such animals.

### 1.4. Records

- 1.4.1. An animal inventory must be compiled at least once a year and include data regarding acquisitions and dispositions in the animal collection.
- 1.4.2. All species owned by the institution must be listed on the inventory, including those animals on loan to and from the institution. In both cases, notations should be made on the inventory.
- 1.4.3. Animals must be identifiable, whenever practical, and have corresponding ID numbers. For animals maintained in colonies or other animals not considered readily identifiable, the institution must provide a statement explaining how record keeping is maintained.
- 1.4.4. Animal records, whether in electronic or paper form, including health records, must be duplicated and stored in a separate location.

Explanation: A complete and up-to-date set of animal records should be duplicated and stored in a separate location. Regardless of the record-keeping system used, all

institutions should maintain at least one complete set of animal records in a fireproof container. Electronic systems are acceptable.

- 1.4.5. At least one set of the institution's historical animal records must be stored and protected. Those records should include permits, titles, declaration forms, and other pertinent information.
- 1.4.6. A staff member must be designated as being responsible for the institution's animal record-keeping system. That person must be charged with establishing and maintaining the institution's animal records, as well as with keeping all animal care staff members apprised of relevant laws and regulations regarding the institution's animal collection.
- 1.4.7. Animal records must be kept current, and data must be logged daily.

Explanation: Records must be kept for at least one year. Prior to disposal of any animal record files, all pertinent information must be transferred to the animal's permanent historical file.

- 1.4.8. The institution must have a record-keeping system that provides sufficient detail to enhance husbandry, breeding, conservation, and medical health advancements to move forward the critical knowledge of the species through permanent and retrievable documentation.

Explanation: ISIS participation is recommended (not required) for all species, and especially for all endangered, CITES I, SSP, and studbook species in the animal collection.

#### 1.5. Collection

- 1.5.1. The animal collection should be representative of the mission statement of the institution.
- 1.5.2. Animals should be displayed, whenever possible, in exhibits replicating their wild habitat and in numbers sufficient to meet their social and behavioral needs. Display of single specimens should be avoided unless biologically correct for the species involved.
- 1.5.3. If animal demonstrations are a part of the institution's programs, an educational/conservation message must be an integral component.
- 1.5.4. A written policy on the use of live animals in programs should be on file. Animals in education programs must be maintained and cared for by trained staff, and housing conditions must meet standards set for the remainder of the animal collection, including species-appropriate shelter, exercise, social and environmental enrichment, access to veterinary care, nutrition, etc. Since some of these requirements can be met outside of the primary enclosure, for example, enclosures may be reduced in size provided that the animal's physical and psychological needs are being met.

Explanation: As stated in the AZA Program Animal Policy, the management of program animals requires special consideration. Although the housing conditions for program animals may look different to those provided to exhibit animals, institutions must ensure that similar social, physical, behavioral and nutritional opportunities are provided to program animals. Providing program animals with control over their environment is essential to ensuring effective care and management.

- 1.5.5. For animals used in offsite programs and for educational purposes, the institution must have adequate protocols in place to protect the rest of the collection from exposure to infectious agents.

Explanation: Animals taken off zoo grounds for any purpose have the potential to be exposed to infectious agents that could spread to the rest of the collection. The institution

must have adequate protocols in place to avoid this. One option is to keep these animals separated from the collection or quarantined for at least 30 days.

- 1.5.6. Institutions which include elephants in their collection must follow the AZA Standards For Elephant Management And Care. (See pages 28 - 37 of these standards for further information.)

- 1.5.7. The animal collection must be protected from weather detrimental to their health.

Explanation: Animals not normally exposed to cold weather in their natural habitats should be provided heated enclosures. Likewise, protection from excessive heat should be provided to those animals normally living in cold climates.

- 1.5.8. The institution must develop a clear process for identifying, communicating, and addressing animal welfare concerns within the institution in a timely manner.

Explanation: It is recommended that a committee or some other process be identified to address staff concerns for animal welfare within the institution. The committee or process should include staff with the experience and authority necessary to evaluate and implement any necessary changes. Examples of Institutional Animal Welfare Processes can be provided by AZA.

- 1.5.9. The institution must have a regular program of monitoring water quality for collections of fish, pinnipeds, cetaceans, and other aquatic animals. A written record must be maintained to document long-term water quality results and chemical additions.

Explanation: Monitoring of selected water quality parameters will provide confirmation of the correct operation of filtration and disinfection of the water supply available for the collection. Additionally, high quality water enhances animal health programs instituted for aquatic collections.

- 1.5.10. Temporary, seasonal and traveling live animal exhibits must be maintained at the same accreditation standards as the institution's permanent living collection.

- 1.5.11. Animal transportation must be conducted in a manner that is safe, well-planned and coordinated, and minimizes risk to the animal(s), employees, and general public. All applicable local, state, and federal laws must be adhered to.

Planning and coordination for animal transport requires good communication among all affected parties, plans for a variety of emergencies and contingencies that may arise, and timely execution of the transport. At no time should the animal(s) or people be subjected to unnecessary risk or danger.

Explanation: Safe animal transport requires the use of appropriate conveyance and equipment that is in good working order. The equipment must provide for the adequate containment, life support, comfort, temperature control, food/water, and safety of the animal(s). Safe transport also requires the assignment of an adequate number of appropriately trained personnel (by institution or contractor) who are equipped and prepared to handle contingencies and/or emergencies that may occur in the course of transport.

## 1.6. Enrichment

- 1.6.1. The institution must have a formal written enrichment program that promotes species-appropriate behavioral opportunities.

Explanation: It is recommended that an enrichment program be based on current information in biology, and should include the following elements: goal-setting, planning and approval process, implementation, documentation/record-keeping, evaluation, and



subsequent program refinement. Further information on the establishment of an enrichment program is available from AZA.

- 1.6.2. The institution must have a specific staff member(s) or committee assigned for enrichment program oversight, implementation, training, and interdepartmental coordination of enrichment efforts.

### 1.7. Commercial Collectors

- 1.7.1. Institutions dealing with collectors of aquatic specimens must determine that the collection procedures used do not cause environmental abuse (e.g., cyanide poisoning and reef blasting).

Explanation: The institution is encouraged to pursue and develop environmentally friendly and responsible working relationships with all of its collection suppliers.

- 1.7.2. Institutions dealing with commercial collectors must determine that the collectors are properly permitted to conduct legal collections of animals (including aquatic animals) from the wild.

Explanation: The institution must be proactive in ensuring that any commercial collectors utilized are properly permitted to conduct legal collections of animals from the wild.

## 2. **VETERINARY CARE**

### **General Considerations:**

**The institution should adopt the guidelines for medical programs developed by the American Association of Zoo Veterinarians.**

[\[http://www.aazv.org/associations/6442/files/zoo\\_aquarium\\_vet\\_med\\_guidelines.pdf\]](http://www.aazv.org/associations/6442/files/zoo_aquarium_vet_med_guidelines.pdf)

### 2.1. Staff

- 2.1.1. A full-time staff veterinarian is recommended. However, the Commission realizes that in some cases such is not practical. In those cases, a consulting/part-time veterinarian must be under contract to make at least twice monthly inspections of the animal collection and respond as soon as possible to any emergencies. The Commission also recognizes that certain collections, because of their size and/or nature, may require different considerations in veterinary care.
- 2.1.2. So that indications of disease, injury, or stress may be dealt with promptly, veterinary coverage must be available to the animal collection 24 hours a day, 7 days a week.

### 2.2. Pharmaceutical

- 2.2.1. Written, formal procedures must be available to the animal care staff for the use of animal drugs for veterinary purposes, and appropriate security of the drugs must be provided.

Explanation: Such procedures should include at least the following: those persons authorized to administer animal drugs, situations in which they are to be utilized, location of animal drugs and those persons with access to them, and emergency procedures in the event of accidental human exposure. Outdated drugs must be marked as such and stored separately from all other drugs. All controlled substances must be stored in a securely locked container of substantial construction appropriate for the types of drugs in the inventory. Carfentinel, Etorphine hydrochloride (M99), and Diprenorphine (M50-50) must be stored in a safe or steel cabinet equivalent to a U.S. Government Class V security container. [NOTE: Underwriters Laboratories (UL) listed burglary-resistant safe (UL-TL

15, TL 30, or TL 45 with a Group 1-R lock). The safe or steel cabinet shall have the following specifications or the equivalent: 30 man-minutes against surreptitious entry, 10 man-minutes against forced entry, 20 man-hours against lock manipulation, and 20 man-hours against radiological techniques.]

2.2.2. The use of drugs in aquariums or aquatic exhibits must comply with FDA Guidelines.

Explanation: The AZA has established an agreement with the Food and Drug Administration (FDA) resulting in a statement from the FDA indicating that it has no objection to the use of drugs in public aquariums under the supervision of a licensed veterinarian. The AZA agreed to implement measures designed to address specific concerns raised by the FDA regarding drug use and possible diversion to use with food fishes and the pet industry. The AZA membership appreciates the fact that the FDA understands that our institutions are primarily education and conservation organizations and that we require the use of drugs to keep our animal collections healthy. This agreement has been reviewed by AZA Institution directors, curators, and veterinarians and resulted in the procedures on page 52.

2.3. Equipment

2.3.1. Capture equipment must be in good working order and available to authorized, trained personnel at all times.

2.3.2. Hospital facilities should have x-ray equipment or have access to x-ray services.

2.4. Preventative Medicine

2.4.1. The veterinary care program must emphasize disease prevention.

Explanation: Vaccination and preventative medicine programs (including TB testing where appropriate) must be in force for the entire collection and under the direction of qualified support staff.

2.4.2. Keepers should be trained to recognize abnormal behavior and clinical symptoms of illness and have knowledge of the diets, husbandry (including enrichment items and strategies), and restraint procedures required for the animals under their care. However, keepers should not evaluate illnesses nor prescribe treatment.

2.5. Necropsy

2.5.1. Deceased animals should be necropsied to determine the cause of death. Disposal after necropsy must be done in accordance with local/federal laws.

2.6. Nutrition

2.6.1. Animal food preparations must meet all local, state/provincial, and federal regulations.

2.6.2. A formal nutrition program is recommended to meet the behavioral and nutritional needs of all species and specimens within the collection.

Explanation: Nutrition programs should be developed using the recommendations of appropriate AZA TAGs or SAGs, and the AZA Nutrition Advisory Group [http://www.nagonline.net/feeding\\_guidelines.htm](http://www.nagonline.net/feeding_guidelines.htm).

2.6.3. Animal diets must be of a quality and quantity suitable for each animal's nutritional and psychological needs. Diet formulations and records of analysis of appropriate feed items should be maintained and may be examined by the Visiting Committee. Animal food should be purchased from reliable sources that are sustainable and/or well managed.

Explanation: Diet formulation criteria should include individual history and natural history, feeding ecology and behavioral needs of the animals. Meat processed on site

must be processed following all USDA standards. As appropriate, diets should be regularly tested for nutritional analysis and suitability. Records of such testing should be maintained.

- 2.6.4. The institution should assign at least one person to oversee appropriate browse material for the collection.

Explanation: If the institution uses browse plants as part of the diet or as enrichment items for the animals in its collection, the items must be identified and reviewed for safety. It is recommended that the responsibility for approval of browse items and oversight of the program be assigned to at least one qualified individual. The program should identify what plants are safe to feed and to which species, which parts of the plant are safe, whether the browse plants have been treated with any chemicals or if they are near any point sources of pollution. If animals have access to plants in and around their exhibits, there should be a staff member responsible for ensuring that the collection is not exposed to toxic plants.

- 2.6.5. If not in separate buildings, animal food preparation areas must be physically separated from other functions such as the animal hospital (including animal treatment, isolation, holding, deceased animal storage) and employee lounges.

### 2.7. Quarantine

- 2.7.1. The institution must have holding facilities or procedures for the quarantine of newly arrived animals and isolation facilities or procedures for the treatment of sick/injured animals.
- 2.7.2. Written, formal procedures for quarantine must be available and familiar to all staff working with quarantined animals.
- 2.7.3. Quarantine, hospital, and isolation areas should be in compliance with standards/guidelines adopted by the AZA (see pages 21 - 27).

## 3. **CONSERVATION**

### **General Considerations:**

**Conservation efforts have been identified as a priority for AZA-accredited institutions. These include interpretive materials and programs, participation in AZA animal management programs, in-situ efforts, and resource support for cooperative conservation programs. Participation in conservation programs, to the extent appropriate, must be demonstrated.**

### 3.1. Mission

- 3.1.1. Conservation must be a key element in the mission of the institution.

Explanation: The word “conservation” must be used in the mission statement, or conservation must be implied or embodied in that statement.

### 3.2. Conservation Program

- 3.2.1. The institution must have a written conservation plan/strategy.

Explanation: The goal for each institution should be to have a measurable impact on wildlife conservation. To accomplish this goal, each institution must have a conservation plan or strategy. A conservation strategy is necessary no matter the size or operating

budget of an institution. This approach is similar to the education plan required for all AZA institutions. The AZA's Field Conservation Committee (FCC) may be used as a resource to assist institutions in developing conservation strategies. Emphasis should be placed on programs that focus on ecosystem conservation.

Conservation activities may include:

- Participation in Regional Conservation alliances (regional conservation efforts with other AZA institutions, agencies, conservation organizations).
- Participation in regional, national, or international conservation programs or projects through staff or resources. Conservation programs should aim to be multidisciplinary and involve at least some of the following: applied research, species recovery, conservation awareness and education, local community participation, establishment of protected areas, habitat restoration.
- Small grants programs for field conservation.
- Participation in recovery plans for endangered and threatened species.
- Involvement in capacity building, training, and technology transfer for field conservation efforts.
- Conservation education programming for public awareness and public participation in conservation activities.

3.2.2. Conservation programs should be evaluated on a regular basis.

Explanation: Some form of regular evaluation of conservation efforts should occur. This can be as simple as measuring money spent and/or people reached, or as complex as measuring the success of motivating visitors to participate in conservation action.

### 3.3. Participation/Support

3.3.1. The institution must participate in every SSP that pertains to an animal contained in its collection. The institution may indicate at what level it desires to participate in each SSP.

3.3.2. The institution must cooperate in providing pertinent information on its animal collection in a timely fashion to sources such as studbook keepers, SSP species coordinators, TAGs, and CAPs.

3.3.3. The institution must actively participate in AZA wildlife conservation programs.

Explanation: To meet AZA's primary goal of cooperative animal management and conservation, accredited facilities must participate in SSPs (see 3.4.1.), and should participate in other appropriate AZA programs. Such programs include the Taxon Advisory Groups (TAGs), Conservation Action Plans (CAPs), Population management Plans (PMPs), Scientific Advisory Groups (SAGs) and regional/international studbooks. Accredited facilities should encourage staff members to assume leadership roles in these programs.

3.3.4. The institution must support wildlife conservation programs.

Explanation: Such programs may include AZA's Taxon Advisory Groups (TAGs), Conservation Action Plans (CAPs), Population Management Plans (PMPs), Scientific Advisory Groups (SAGs), regional/international studbooks, the World Association of Zoos and Aquariums (WAZA), the Species Survival Commission (SSC), and the Conservation Breeding Specialist Group (CBSG), local universities, conservation organizations, etc.

3.3.5. The institution must have involvement in regional or international conservation programs through staff or resources.

Explanation: Conservation programs should aim to be multidisciplinary and involve at least some of the following: applied research, species recovery, conservation awareness

and education, local community participation, establishment of protected areas, habitat restoration.

- 3.3.6. The institution must demonstrate responsible energy and natural resource conservation through such activities as recycling, water conservation initiatives, composting, and use of solar energy. Resource conservation efforts should be commensurate with the size of the institution's budget and staff.

#### 4. EDUCATION AND INTERPRETATION

##### General Considerations:

**This section includes all questions related to education and interpretation. Collectively, education and interpretation refer to: programming on-site and off-site for targeted audiences such as school groups, teachers and families, as well as all types of interpretive methods, for example, graphics, exhibits, program animal use, and docent/keeper talks. Institutions may differ organizationally in how they accomplish these tasks (e.g., some institutions may have an Exhibits Department, or graphics may be coordinated by the Art Department). What is key is the role of the education staff in the accomplishment of these tasks. Institutions are encouraged to share educational and interpretive programming, materials, and evaluation techniques with other AZA institutions.**

##### 4.1. Mission

- 4.1.1. Education must be a key element in the mission of the institution.

Explanation: The word "education" must be used in the mission statement, or education must be implied or embodied in that statement.

##### 4.2. Education Program

- 4.2.1. The institution must have a written education plan that matches current industry standards, and that includes goals and objectives.

Explanation: The institution's education plan should include a copy of its education vision/mission, as well as strategic goals and objectives. The plan may include a copy of the organizational chart, and description of how the education department interacts with other departments on issues such as exhibit and graphics' development, keeper presentations, *in situ* conservation programs, etc. The plan should include the institution's conservation messages (preferably referencing the AZA Conservation Education Messages).

- 4.2.2. The education department must be under the direction of a paid staff person who is trained or has experience in educational programming. Education personnel should be involved in the development of exhibits, graphics, and interpretation, as well as all structured programs for the visiting public.
- 4.2.3. Cooperative programs with educationally-focused local/national groups (universities/colleges, nature centers, conservation organizations, museums, governmental agencies, etc) should be developed.

Explanation: The institution should encourage active, ongoing collaborative partnerships with community groups, other informal education institutions (museums, science centers, nature centers, etc.), school districts, institutes of higher learning, other

conservation organizations, local and national governmental agencies, and other organizations and individuals that can contribute to the expansion of the institution's educational dimension and accomplishment of its mission.

- 4.2.4. A reference library appropriate to the size and complexity of the institution should be available to all institution staff members and volunteers.

#### 4.3. Evaluation/Interpretation

- 4.3.1. Exhibits, interpretive programs and other education programs should be evaluated on a regular basis for effectiveness, content, and updated with current scientific information. These programs should assess more than participant satisfaction, looking also at program impact (ideally including impact on conservation-related knowledge, attitudes/affect, and behavior). Results from evaluations should be used to improve the existing programs and to create new programs.

- 4.3.2. The institution should have a thorough understanding of the needs of its audiences and as such provide programs to meet these needs.

Explanation: Zoo and aquarium education can be accomplished by programs offered to a wide-variety of audiences and staff through a variety of programmatic methods: publications, exhibit interpretation, on-site presentations, tours, summer camps, speaker's bureau, outreach programs, teacher training, etc. The institution need not reach ALL audiences equally, but a thoughtful approach to audience selection should be evident – e.g., a clear understanding of their audience's needs, including the needs of under-represented groups and groups with special abilities. Similarly, not all types of programming must be used equally, but a thoughtful approach to program development must be evident. Programming should include local/global conservation issues and topics, the role of zoos and aquariums in conservation, information on AZA and other conservation-oriented organizations; as well as ways that the institution acts as a resource in its community for wildlife conservation education and related issues. Programming should clearly address cognitive, affective, and behavior outcomes (i.e., options for individual action that encourages stewardship in conserving the environment).

- 4.3.3. The exhibit graphics and other interpretive devices should be based upon current scientific knowledge and reflect current interpretive methods, and reflect the overall process followed in the exhibit planning phase.

Explanation: The interpretive program must be based on the thoughtful development of conservation messages for the institution, preferably including reference to the AZA Conservation Education Messages. Exhibit interpretation may include information regarding the animal's natural history, conservation and care, ecology, relation to humans, correct taxonomic identification and current status (i.e. endangered or threatened), as well as reference the AZA's SSP program. Inclusion of interpretive information on botanical collections also is strongly encouraged.

## 5. *RESEARCH*

### **General Considerations:**

**Contemporary animal management, husbandry, veterinary care and conservation practices should be based in science. A commitment to scientific research, both basic and applied, is a trademark of the modern zoological park and aquarium. An AZA accredited institution must have a demonstrated commitment to scientific research that is in proportion to the size and scope of its facilities, staff and animal collections. There must be a formal written research policy including a process for the evaluation and approval of scientific research project proposals.**

- 5.1. Research activities must be under the direction of a person qualified to make informed decisions regarding research.
- 5.2. The institution must have a written policy that outlines the type of research that it conducts, methods, staff involvement, evaluations, animals to be involved, and guidelines for publication of findings.
- 5.3. The institution should maximize the generation of scientific knowledge gained from the animal collection. This might be achieved by participating in AZA TAG/SSP sponsored research when applicable, conducting original research projects, affiliating with local universities, and/or employing staff with scientific credentials.

## **6. GOVERNING AUTHORITY**

- 6.1. The governing authority must be supportive of the institution abiding by the AZA Accreditation Standards, Code of Professional Ethics, and Bylaws.

Explanation: The Commission must be assured that the institution's governing authority understands and is supportive of the institution abiding by the AZA Accreditation Standards, Code of Professional Ethics, and Bylaws.

- 6.2. The governing authority must recognize and support the institution's goals and objectives.
- 6.3. The governing authority has the responsibility for policy matters and oversight of the institution. The CEO/Director must be responsible for the day-to-day management of the institution.
- 6.4. While the governing authority may have input, the decisions regarding the animal collection must be made by the professionals who are specifically trained to handle the institution's animal collection, staff, and programs.
- 6.5. The lines of communication between the CEO/Director and the governing authority must be clearly defined. Additionally, the governing authority should be structured so that its relationship to the professional staff is clearly understood and followed.

Explanation: If clear lines of communication do not exist, a breakdown in the operation of the institution and care of the animal collection could occur. It is essential to have a good working relationship between the governing authority, CEO/Director, and staff.

- 6.6. The CEO/Director should be an ex officio member of the governing authority board or have the opportunity to attend meetings that would affect operations of the institution.

## **7. STAFF**

- 7.1. The institution must be under the direction of a compensated permanent CEO/Director. The CEO/Director should be available to the institution on a full-time basis.
- 7.2. In the event a CEO/Director has several "jobs" (i.e., also directs other areas of a park system), clear priorities must be established, with each job having separate and distinct descriptions.
- 7.3. There must be an adequate number of trained staff to care for the animal collection and to conduct the institution's programs.

Explanation: Although there is no set formula for prescribing the size of the staff, the number and nature of the collection, the general condition of the collection and exhibits, and past staffing practices may be used to define what is considered "adequate."

- 7.4. Staff salaries should be competitive with other related organizations in the local/regional area.
- 7.5. Staff members should receive opportunities for continuing education and training programs.

Explanation: Staff members should be provided an opportunity to be educated/trained in current methods of animal care, husbandry, personnel management, public education, public relations, marketing, and other related areas. Funding should be provided for travel, meeting/conference participation, tuition, and other professional opportunities.

- 7.6. A professional attitude in the working relationship between staff members should be maintained so as to enhance the operations of the institution.
- 7.7. Staff members should be encouraged to actively participate in AZA programs, as well as other programs developed by conservation-oriented organizations.
- 7.8. Staff members should have access to the AZA Accreditation Standards (*Guide to Accreditation of Zoological Parks and Aquariums, and Accreditation Standards*) prior to processing for accreditation. It is also important to communicate with staff the importance of accreditation and what to expect during the accreditation process and Visiting Committee inspection.
- 7.9. It is recommended that the institution have a staff diversity statement or program.
- 7.10. Programs utilizing volunteers/docents should also include provisions for recruitment, interviewing, retention, and training. This process must be under the supervision of a staff member(s) charged with overseeing the volunteer programs of each department.

## **8. SUPPORT ORGANIZATION**

- 8.1. The support organization must recognize the CEO/Director's overall responsibility for the management of the institution.
- 8.2. A support organization must share the institution's goals and objectives.

Explanation: A support organization which has goals inconsistent with those of the institution may jeopardize the institution's work.

- 8.3. The terms establishing the working relationship between the institution and its support organization must be in writing and adhered to in practice.

## **9. FINANCE**

- 9.1. The institution, regardless of whether operating on a profit or nonprofit basis, must provide sufficient evidence of its financial stability by submitting complete financial reports, including an operating budget indicating that the financial support from the governing authority and/or support organization meets the needs of the institution.

Explanation: Proof of financial support includes the submission of an operating budget reflecting sources of income, as well as expenses. It should also include contingency plans in the event that significant decreases in support are anticipated. In the case of financial reports other



than audited statements, the Primary Reviewer or the Commission shall determine what constitutes *sufficient evidence*.

- 9.2. The financial information must include a breakdown of salaries or salary ranges for all full-time staff members.
- 9.3. Insurance coverage, via independent carrier or internal means, must be provided for visitors, staff, volunteers/docents, and physical facilities.
- 9.4. The institution should provide a copy of the capital improvements and maintenance program for the next five years and indicate sources of funding.

Explanation: Capital improvements include renovations, maintenance of buildings/grounds/exhibits, new construction, and demolition of outdated structures. The Commission and its Visiting Committees review all components of the institution, including walkways, driveways, and buildings—not just animal enclosures.

## 10. PHYSICAL FACILITIES

### General Considerations:

**While the Commission is interested in the institution's future plans, accreditation will be based upon operations and facilities existing at the time of the Visiting Committee inspection.**

**All United States institutions should comply with the Americans with Disabilities Act.**

### 10.1. Housekeeping

- 10.1.1. Good housekeeping must be regularly practiced.

Explanation: Rodent control, proper drainage, clutter in work areas, and other housekeeping activities require continuous attention. Animal food must not be stored in the same area as animal drugs. Animal food and human food must not be stored in the same location (refrigerators, freezers, etc.) Cadavers awaiting necropsy must be stored in a dedicated storage area.

### 10.2. Equipment

- 10.2.1. Critical life-support systems for the animal collection, including but not limited to plumbing, heating, cooling, aeration, and filtration, must be equipped with a warning mechanism, and emergency backup systems must be available. All mechanical equipment should be under a preventative maintenance program as evidenced through a record-keeping system. Special equipment should be maintained under a maintenance agreement, or a training record should show that staff members are trained for specified maintenance of special equipment.

Explanation: Facilities such as aquariums, tropical rainforest buildings, or other exhibits which rely on climate control for life-sustaining conditions must have emergency backup systems and a mechanism for warning if those systems are malfunctioning.

- 10.2.2. Alarms for fire, security, and other safety alerts must be in place and in working order. Routine maintenance records should be kept, detailing safety checks of the equipment.

- 10.3. Animal Enclosures
- 10.3.1. Lighting must be sufficient in all indoor facilities, including night houses, so that maintenance can be accomplished and animals can be observed. A means for emergency lighting must be available.
  - 10.3.2. Ventilation must be sufficient in all indoor facilities, including animal holding.
  - 10.3.3. All animal enclosures (exhibits, holding areas, hospital, and quarantine/isolation) must be of a size and complexity sufficient to provide for the animal's physical, social, and psychological well-being; and exhibit enclosures must include provisions for the behavioral enrichment of the animals.
- 10.4. Public Areas
- 10.4.1. Lighting in public areas must be sufficient for the safe maneuvering of the visiting public.
  - 10.4.2. All walkways must be kept in good repair.

## **11. SAFETY/SECURITY**

### **11.1. General**

- 11.1.1. The institution must be in compliance with local, state, and federal laws regarding employee training for safety in the workplace.
- 11.1.2. Training and procedures must be in place regarding zoonotic diseases.
- 11.1.3. A tuberculin (TB) testing/surveillance program must be established for appropriate staff in order to ensure the health of both the employees and the animal collection.
- 11.1.4. A written policy for the handling of toxic/hazardous materials must be available to all staff working with those materials, and staff must be trained in the proper handling of those materials.
- 11.1.5. Material Safety Data Sheets (MSDS) must be located in areas for easy access by employees.

### **11.2. Emergency Procedures**

- 11.2.1. The institution should have an automated emergency defibrillator (AED) and provide training to appropriate staff.
- 11.2.2. The institution must have a written plan available to staff for first-aid and other various health emergencies.
- 11.2.3. All emergency procedures must be written and provided to staff and, where appropriate, to volunteers. Appropriate emergency procedures must be readily available for reference in the event of an actual emergency. These procedures should deal with four basic types of emergencies: fire, weather/environment; injury to staff or a visitor; animal escape.

Explanation: Emergency drills ensure that the institution's staff know their duties and responsibilities and know how to handle emergencies properly when they occur. The institution must have in place appropriate emergency procedures to handle the basic types of emergencies identified above, and also for emergencies of a nature to which the institution may be particularly vulnerable. The training of staff in how to follow these procedures must also be undertaken and records of such training maintained.

Emergency drills should be conducted at least once annually for each basic type of emergency (fire, weather/environment; injury to staff or a visitor; animal escape) to

determine if all staff is aware of emergency procedures, as well as to identify potential areas that could cause problems in the handling of an emergency. These drills need to be recorded and evaluated to ensure that procedures are being followed, that staff training is effective, and that what is learned is used to correct and/or improve the emergency procedures. Records of these drills must be maintained and improvements in the procedures duly noted whenever such are identified.

- 11.2.4. The institution must have a communication system that can be quickly accessed in case of an emergency.

Explanation: There should be immediate access to designated persons in case of an emergency via walkie/talkie, pager, mobile telephone, intercom, telephone, alarm, or other electronic devices.

- 11.2.5. A written protocol should be developed involving local police or other emergency agencies and include response times to emergencies.

### 11.3. Facilities/Animal Exhibits

- 11.3.1. All animal exhibits and holding areas must be secured to prevent unintentional animal egress.

Explanation: Particular attention must be given to shift doors, gates, and keeper access doors, and exhibit barrier dimensions and construction, to provide for staff and public safety. Locking or latching mechanisms are necessary to meet this standard for dangerous animals.

- 11.3.2. All exhibit service areas must be safely lighted, free of debris, and provide space to allow for safe servicing. Also, service exit doors must be clearly marked and in good working order. All locks and shift doors must be in good working order.
- 11.3.3. Special attention must be given to free-ranging animals so that no undue threat is posed to either the animal collection, free-ranging animals, or the visiting public. Animals maintained where they will be in contact with the visiting public must be carefully monitored, and treated humanely at all times.
- 11.3.4. Electrical service in all wet environments, aquatic exhibits, and associated service areas must be equipped with ground fault circuit interrupters (GFI).
- 11.3.5. All public access areas must be equipped with exit signs and doors must be equipped with emergency hardware.
- 11.3.6. Guardrails/barriers must be constructed in all areas where the visiting public could have contact with other than handleable animals.

### 11.4. Risk Management

- 11.4.1. A written risk management policy must be developed and implemented.

Explanation: Risk management is defined as a plan in which areas of potential risk for injury/harm to the visiting public and employees, as well as ways for prevention of such injury/harm, are identified. An employee committee should be appointed to implement the risk management plan, identify areas of potential risk, and review previous incidents. Examples of potential risk to employees include wet floors and poor lighting and ventilation in work areas, poorly constructed/planned exhibit service areas, cluttered work space, inadequate training, and animal shift mechanisms not in proper repair. Examples of potential risk to the visiting public include wet floors, poor lighting, insufficient barrier fencing, cracks and/or holes in visitor walkways, condition of handrails and steps, rotted wood, etc.

### 11.5. Dangerous Animals

- 11.5.1. Institutions maintaining venomous animals must have appropriate antivenin readily available, and its location must be known by all staff members working in those areas. An individual must be responsible for inventory, disposal/replacement, and storage of antivenin.

Explanation: It is the responsibility of the institution to ensure that appropriate antivenins are available locally for all venomous species maintained at their institution, and for which antivenin is produced. Institutions may rely on the antivenin supply of local hospitals and treatment facilities, but it is also the institution's responsibility to guarantee that these inventories are maintained adequately. Such arrangements must be formally documented relationships.

- 11.5.2. All areas housing venomous animals, or animals which pose a serious threat of catastrophic injury and/or death (e.g. bears, killer whales, sharks, large felines, venomous snakes, and others) must be equipped with appropriate alarm systems, and/or have protocols and procedures in place which will notify staff in the event of a bite injury, attack, or escape from the enclosure. These systems and/or protocols and procedures must be routinely checked to insure proper functionality, and periodic drills must be conducted to insure that appropriate staff members are notified.
- 11.5.3. Institutions maintaining potentially dangerous animals (e.g. bears, killer whales, sharks, large felines, venomous snakes, and others) must have appropriate safety procedures in place to prevent attacks and injuries by these animals. Appropriate response procedures must also be in place to deal with an attack resulting in an injury. These procedures must be practiced routinely per the emergency drill requirements contained in these standards. Whenever injuries result from these incidents, a written account outlining the cause of the incident, how the injury was handled, and a description of any resulting changes to either the safety procedures or the physical facility must be prepared and maintained for five years from the date of the incident.

### 11.6. Security/Firearms

- 11.6.1. Security should be provided on a 24-hour, year-round basis.

Explanation: The Commission recognizes that all institutions may not be able to provide security personnel on a 24-hour basis; however, every attempt should be made to provide security when the institution is closed to the visiting public. Security responsibilities should include regular rounds of the entire institution to detect problems. If it is impractical to provide security personnel, the Commission may approve the use of electronic systems or other security measures.

- 11.6.2. Security personnel, whether staff of the institution, or a provided and/or contracted service, must be trained to handle all emergencies in full accordance with the policies and procedures of the institution. In some cases, it is recognized that Security personnel may be in charge of the respective emergency (i.e. shooting teams).
- 11.6.3. Stored firearms must be in a locked cabinet of sufficient construction and design to impede unauthorized entry, and located in a secure area and accessible only to authorized personnel trained in their use.

Explanation: Personnel authorized to utilize firearms should have professional training and regular practice.

### 11.7. Diving

- 11.7.1. Institutions which utilize underwater diving with compressed air (SCUBA or surface-supplied) as a part of regular operations and/or maintenance shall meet minimal operational safety standards for such diving. Such institutions must comply with the applicable laws for their location and size of institution and should follow the standards mandated by the

Occupational Safety and Health Administration (OSHA) for commercial diving. Alternatively, such institutions may elect to claim an exemption from the OSHA standards for “scientific diving”. If such an exemption is claimed, the institution must operate under the auspices of a diving manual commensurate with the consensual standards of the scientific diving community (modeled after or approved by the American Academy of Underwater Sciences [AAUS]), and under the control of a diving safety board or committee which has full institutional authority to ensure compliance with diving safety standards.

#### **11.8. Perimeter Fence**

- 11.8.1. Perimeter fencing must be separate from all exhibit fencing or other enclosures, and be of good quality and construction. All facilities must be enclosed by a perimeter fence which is at least 8' in height or by a viable barrier. The fence must be constructed in a manner that leaves no gaps anywhere, including gates, that would allow entry to the grounds by feral/wild animals or permit the egress of a collection animal in the event of an escape from a primary enclosure.

Explanation: There are rare instances where the terrain surrounding the facility provides a viable barrier. However, most facilities must be enclosed by a perimeter fence. Facilities located in rural areas and which are PPEQ-approved must meet special USDA standards for fencing. Institutions which are entirely enclosed within a building may be exempt from this requirement.

### **12. GUEST SERVICES**

- 12.1. The institution must provide basic accessibility and public amenities for all visitors, and should address the needs of both children and adults.

Explanation: Each institution must consider accessibility for all visitors as improvements are made.

- 12.2. The institution must have certain basic facilities to accommodate guests, including restrooms, drinking fountains, food facilities, and rest areas.
- 12.3. The institution should have common conveniences for guests, including sufficient parking, gift facilities, institution trail maps, directional signage, etc.
- 12.4. The institution must present to the visiting public a positive, professional, and aesthetically pleasing environment.

### **13. OTHER PROGRAMS/ACTIVITIES**

- 13.1. The institution should have a strategic master plan to guide the institution in its development.
- 13.2. The institution should have a facilities master plan to guide the institution in its development.

Rev: 08/09

***NOTE: For general administrative policies of the AZA Accreditation Commission, please refer to the 2010 “Guide To The Accreditation Of Zoological Parks And Aquariums”.***

## RECOMMENDED QUARANTINE PROCEDURES

### QUARANTINE FACILITY:

A separate quarantine facility, with the ability to accommodate mammals, birds, reptiles, amphibians, and fish should exist. If a specific quarantine facility is not present, then newly acquired animals should be isolated from the established collection in such a manner as to prohibit physical contact, to prevent disease transmission, and to avoid aerosol and drainage contamination. Such separation should be obligatory for primates, small mammals, birds, and reptiles, and attempted wherever possible with larger mammals such as large ungulates and carnivores, marine mammals, and cetaceans. If the receiving institution lacks appropriate facilities for isolation of large primates, pre-shipment quarantine at an AZA or AAALAC accredited institution may be applied to the receiving institution's protocol. In such a case, shipment must take place in isolation from other primates. More stringent local, state, or federal regulations take precedence over these recommendations.

### QUARANTINE LENGTH:

Quarantine for all species should be under the supervision of a veterinarian and consist of a minimum of 30 days (unless otherwise directed by the staff veterinarian). Mammals: If during the 30-day quarantine period, additional mammals of the same order are introduced into a designated quarantine area, the 30-day period must begin over again. However, the addition of mammals of a different order to those already in quarantine will not have an adverse impact on the originally quarantined mammals. Birds, Reptiles, Amphibians, or Fish: The 30-day quarantine period must be closed for each of the above Classes. Therefore, the addition of any new birds into a bird quarantine area requires that the 30-day quarantine period begin again on the date of the addition of the new birds. The same applies for reptiles, amphibians, or fish.

### QUARANTINE PERSONNEL:

A keeper should be designated to care only for quarantined animals or a keeper should attend quarantined animals only after fulfilling responsibilities for resident species. Equipment used to feed and clean animals in quarantine should be used only with these animals. If this is not possible, then equipment must be cleaned with an appropriate disinfectant (as designated by the veterinarian supervising quarantine) before use with post-quarantine animals.

Institutions must take precautions to minimize the risk of exposure of animal care personnel to zoonotic diseases that may be present in newly acquired animals. These precautions should include the use of disinfectant foot baths, wearing of appropriate protective clothing and masks in some cases, and minimizing physical exposure in some species; e.g., primates, by the use of chemical rather than physical restraint. A tuberculin testing/surveillance program must be established for zoo/aquarium employees in order to ensure the health of both the employees and the animal collection.

### QUARANTINE PROTOCOL:

During this period, certain prophylactic measures should be instituted. Individual fecal samples or representative samples from large numbers of individuals housed in a limited area (e.g., birds of the same species in an aviary or frogs in a terrarium) should be collected at least twice and examined for gastrointestinal parasites. Treatment should be prescribed by the attending veterinarian. Ideally, release from quarantine should be dependent on obtaining two negative fecal results spaced a minimum of two weeks apart either initially or after parasiticide treatment. In addition, all animals should be evaluated for ectoparasites and treated accordingly.

Vaccinations should be updated as appropriate for each species. If the animal arrives without a vaccination history, it should be treated as an immunologically naive animal and given an appropriate series of vaccinations. Whenever possible, blood should be collected and sera banked. Either a -70°C freezer or a -20°C freezer that is not frost-free should be available to save sera. Such sera could provide an important resource for retrospective disease evaluation.

The quarantine period also represents an opportunity to, where possible, permanently identify all unmarked animals when anesthetized or restrained (e.g., tattoo, ear notch, ear tag, etc.). Also, whenever animals are restrained or immobilized, a complete physical, including a dental examination, should be performed.

Complete medical records should be maintained and available for all animals during the quarantine period. Animals that die during quarantine should have a necropsy performed under the supervision of a veterinarian and representative tissues submitted for histopathologic examination.

#### QUARANTINE PROCEDURES:

The following are recommendations and suggestions for appropriate quarantine procedures for several animal groups:

#### PRIMATES

- REQUIRED:
1. direct and floatation fecals as described above
  2. a minimum of 2 negative tuberculin tests using a tuberculin containing at least 1,500 units/.1 ml (e.g., Mammalian Human Isolate, Coopers Animal Health) or other appropriate regimen as necessary for the species in question (e.g., orangutans, New World primates, etc.)
  3. CBC/sera chemistry panel
  4. culture of feces for salmonella/shigella/Campylobacter
  5. for appropriate species; e.g., Old World monkeys, serology for *Herpesvirus simiae* (Herpes B)

#### STRONGLY RECOMMENDED:

1. chest radiographs
2. appropriate viral panels (SIV, retrovirus type D)
3. urinalysis

#### HOOFSTOCK

- REQUIRED:
1. direct and floatation fecals
  2. TB test whenever possible

#### STRONGLY RECOMMENDED:

1. CBC/sera profile
2. appropriate serology; e.g., leptospirosis brucellosis, MCF, IBR, BVD, etc. Paired titers whenever possible
3. urinalysis
4. Johnes diagnostics if history of disease in herd of origin
5. Coggins test for equids
6. vaccinate as appropriate (See ZOO AND WILD ANIMAL MEDICINE, ME Fowler)

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**SMALL MAMMALS/CARNIVORES**

- REQUIRED:**
1. direct and floatation fecals
  2. vaccinate as appropriate (See ZOO AND WILD ANIMAL MEDICINE, ME Fowler and upcoming CURRENT VETERINARY THERAPY XI, WB Saunders Co.)

**STRONGLY RECOMMENDED:**

1. CBC/sera profile
2. urinalysis
3. appropriate serology (FIP, FeLV, FIV)
4. heartworm testing in appropriate species

**BIRDS**

- REQUIRED:**
1. direct and floatation fecals
  2. evaluate for ectoparasites
  3. appropriate serological tests for psittacosis, and if positive, confirmed by culture

**STRONGLY RECOMMENDED:**

1. CBC/sera profile
2. fecal culture for *Salmonella* sp.
3. fecal gram stain

**REPTILES AND AMPHIBIANS**

- REQUIRED:**
1. direct and floatation fecals for parasites followed by appropriate treatment
  2. evaluate for ectoparasites

**STRONGLY RECOMMENDED:**

1. veterinary examination
2. CBC/blood chemistries
3. Paramyxo-viral titers for all viperids, incoming after being in quarantine for 30 days
4. full post-mortem examination and histopathology on all specimens dying while in quarantine

**FISH****GENERAL COMMENTS:**

Quarantine standards for other zoo and aquarium animals cannot always be applied to fish, and adaptations must be made to the proposed procedures as they apply to fish populations. Proper and appropriate fish quarantine is a vital component of any successful health management program for fish. Quarantine procedures must be tailored to individual species and require greater variation than quarantine for other zoo and aquarium animals. It is in the interest of accredited institutions to carry out quarantine procedures that are both effective and practical, leading to improved animal health.

Fish are usually acquired as populations, not as individual specimens, and individual identity may be impractical to establish. Few aquariums have the facilities and/or space to properly maintain large fish specimens in separate life-support systems, making individual quarantine of these specimens difficult. Aquariums may operate as open or semi-open systems, and specimens acquired from the surrounding



waters of these institutions may not benefit from rigid quarantine procedures due to constant introduction of potential disease organisms. Veterinarians may be part of the team supervising the quarantine, but the institution should appoint the staff it feels has the best expertise to supervise and operate the quarantine program. It is appropriate to note that state and federal hatcheries do not often employ veterinarians, yet have well-established and internationally recognized fish health programs of which quarantine is an important factor.

## **SPECIFIC RECOMMENDATIONS**

### **QUARANTINE FACILITY:**

Where appropriate, separate life-support systems (LSS) with the ability to quarantine fishes should exist. The LSS should be operated in such a way as to preclude disease transfer from one system to another and/or introduction into natural waters. Quarantine tanks should have viewing that is adequate to observe the fish for behavior and signs of pathology; the LSS should be adequate to maintain the health of the quarantine population. If an aquarium does not have a separate LSS, it should have the ability to divert flow through the quarantine systems, bypass the common filter, and discharge the water. Disinfection of the discharge water prior to release is advisable. In addition, discharge of this water must comply with federal, state, and local environmental regulations.

### **QUARANTINE LENGTH:**

A quarantine period of 30 days is an adequate standard; however, it must be recognized that certain species or disease problems may require more or less time.

### **QUARANTINE PERSONNEL:**

The institution will appoint the staff it feels has the most expertise to supervise and operate the quarantine program. All equipment (boots, nets, cleaning equipment, etc.) should be confined to the quarantine area. Access to and from the area should be restricted so as to minimize cross-contamination. Precautions must be taken to minimize the risk of zoonotic disease to personnel.

### **QUARANTINE PROTOCOL:**

Each institution must have a written quarantine protocol. During quarantine, appropriate prophylactic measures should be instituted. Complete medical records should be maintained for the specimens during the quarantine period. Fish that die during quarantine, or a representative sample thereof, should be necropsied. Care must be taken that all equipment used with quarantined fish is separate from other systems. (If this is not possible, adequate disinfection procedures must be employed before equipment is used for post-quarantine fish.)

### **REQUIRED QUARANTINE PROCEDURES:**

Because of the great diversity of fish, required quarantine procedures are difficult to establish. The institution should follow the guidelines stated in the above sections to fashion a quarantine program best suited to their needs.

## MARINE MAMMALS

All AZA member zoological parks and aquariums should have a quarantine program for new marine mammal arrivals at the institution. A facility should be available which can provide for the isolation of newly acquired marine mammals in such a manner as to prohibit cross-contamination resulting from physical contact, disease transmission, aerosol spread, waste drainage, or the reuse of untreated water. Ocean pens must be located in a way that prevents the spread of any disease from animal to animal through natural water movement and at a distance from other penned animals deemed adequate by the supervising veterinarian. If a receiving institution does not have appropriate isolation facilities, the staff should arrange for quarantine at an acceptable alternate site or only receive animals which do not require quarantine. More stringent local, state, or federal regulations relating to marine mammal quarantine take precedence over these recommendations.

Isolation practices should be instituted based on the prior medical history of the newly arrived animal. Those situations where isolation is recommended would have one or more of the following characteristics:

1. Recently collected (less than 30 days prior to arrival).
2. Recently exposed to a new arrival for which an adequate medical history is not available (less than 30 days prior to arrival).
3. Lack of a documented medical history.
4. Apparent medical problems at the time of arrival.
5. At the direction of the supervising veterinarian.

Quarantine for all species should be under the supervision of a veterinarian and consist of a minimum of 30 days (unless otherwise directed by the staff veterinarian). If during the 30-day quarantine additional marine mammals are introduced into the isolation facility, the 30-day period must begin again for all animals already in quarantine and exposed to the new arrivals.

Attendants should be designated to care only for quarantine animals or to attend quarantined animals only after fulfilling their responsibilities for resident species. Attendants provided with quarantine clothing and washing facilities designed to prevent disease transmission may be allowed to attend to non-quarantine animals after working with quarantined specimens if approved by the supervising veterinarian. Equipment used to feed and clean animals in quarantine should be used only with those animals or should be thoroughly cleaned and disinfected, as designated by the supervising veterinarian, before use with post-quarantine animals.

Institutions must take precautions to minimize the risk of exposure of animal personnel to zoonotic diseases that may be present in newly acquired animals if the attending veterinarian deems that such risk exists. These precautions should include using disinfectant foot baths, wearing appropriate protective clothing, and minimizing physical contact.

During the quarantine period, certain prophylactic measures should be instituted with some species. Individual fecal samples should be collected, if required, at least twice and examined for gastrointestinal parasites. When indicated, treatment should be prescribed by the attending veterinarian. Successful parasiticide therapy may or may not be necessary prior to removal of the animal from quarantine. This determination should be made by the attending veterinarian based on the potential for contagion. Where indicated, the animals should also be evaluated and treated for ectoparasites.

In those species for which vaccines are available and recommended, vaccinations should be given as appropriate for each species. If the animal arrives without a vaccination history, it should be treated as an immunologically naive animal and given an appropriate series of vaccinations. Whenever possible, blood should be collected and sera banked. Either a  $-70^{\circ}\text{C}$  freezer or a  $-20^{\circ}\text{C}$  freezer that is not frost free should

be available to store sera. Such sera can provide an important resource for retrospective disease evaluation.

Where desirable, the quarantine period may present opportunities to permanently identify unmarked animals. A complete physical examination should be performed during entrance into and prior to exit from quarantine.

Complete medical records should be kept and be available on all animals during the quarantine period. Animals that die during quarantine should have a necropsy performed on them under the supervision of a veterinarian, and representative tissues should be submitted for histopathologic examination.

Following are the recommendations and suggestions for appropriate medical procedures to be performed during or immediately prior to the quarantine period, by animal group:

### CETACEANS

- REQUIRED:
1. CBC/serum chemistry panel
  2. Physical examination

STRONGLY RECOMMENDED:

1. Direct and floatation fecal exam
2. Urinalysis
3. Blowhole and stool culture and cytology
4. Blood zinc levels

### PINNIPEDS

- REQUIRED:
1. CBC/serum chemistry panel
  2. Physical examination

STRONGLY RECOMMENDED:

1. Direct and floatation fecal exam
2. Urinalysis
3. Morbillivirus titer
4. Leptospira titer
5. Heartworm test (if appropriate)
6. Stool culture and cytology
7. Blood zinc levels

### SIRENIANS

- REQUIRED:
1. CBC/serum chemistry panel
  2. Physical examination

STRONGLY RECOMMENDED:

1. Direct and floatation fecal exam
2. Stool culture and cytology

CARNIVORES (Polar bear, sea otter)

- REQUIRED:
1. Direct and floatation fecal exam
  2. CBC/serum chemistry panel
  3. Physical examination
  4. Vaccination for canine distemper, feline panleukopenia, canine parvovirus, and rabies should be current as deemed necessary by the attending veterinarian.

STRONGLY RECOMMENDED:

1. Urinalysis
2. Blood zinc levels

*NOTE: Highlighted sections are recommendations (not requirements), or are standards for which variances may be obtained. (See page 22 of the 2008 "Guide To Accreditation of Zoological Parks and Aquariums" for information on requesting a variance.)*

## **AZA STANDARDS FOR ELEPHANT MANAGEMENT AND CARE**

**Adopted 21 March 2001, Updated 5 May 2003**

The following standards apply to the husbandry and management of both African (*Loxodonta africana*) and Asian (*Elephas maximus*) elephants in AZA accredited institutions, AZA related facilities, and non-member participants in the AZA Elephant Species Survival Plan (SSP). The intelligence, strength, and social needs of these magnificent animals can pose many challenges for captive managers. Institutions desiring to hold elephants should therefore understand the substantial human, financial, and ethical commitments involved in appropriately maintaining these large and potentially dangerous species (Hutchins and Smith 1999). These standards have been developed to guide institutions that are planning and improving their elephant programs and are considered during the AZA accreditation process and non-member SSP participant evaluation. The AZA Board of Directors has instructed the Accreditation Commission to immediately require written verification from AZA member institutions holding elephants, certifying that they are meeting the required standards (BOD 3/25/03).

The AZA Board of Directors believes that the Association performs a valuable role in the cooperative development of standards for zoo and aquarium animal management and care, which are designed to advance the collective mission of AZA and its members. The development of these standards and the adoption of them through the AZA accreditation process is what sets AZA members apart from roadside animal attractions. The Board understands that there will be differences of opinion as to what constitutes appropriate standards. Standards evolve over time reflecting changes in knowledge, expertise, and public perception.

The AZA Board of Directors has asked the AZA Elephant SSP/TAG to begin formulating a draft vision for the future of elephant management in AZA accredited zoos. Because current standards are expected to change over time, it is recommended that members seeking to plan new elephant exhibits/care programs look to the vision, rather than the current standards, for guidance on where to go in the future.

Compliance with some minimum housing (specifically space, enclosure design, and elephant restraint device (ERD) requirements) must be implemented no later than five years from the issuance of these standards (1 May 2006). Institutions must have written implementation plans for compliance with these standards no later than three years from their issuance (1 May 2004). AZA accredited and related facilities must meet all other provisions described here within one year (1 May 2002) of the issuance of these standards, unless the Accreditation Commission approves a variance. Failure to meet basic AZA standards for elephant management and care will be noted during accreditation inspections. Current non-member participants in the SSP will be given the same time schedule for compliance, but new non-member participants must meet all new standards prior to approval.

## 1. Abiotic Environmental Variables

### 1.1. Temperature

- 1.1.1. Elephants must be kept outside on natural substrates as much as possible. Institutions should consider designing exhibits that allow elephants outdoor access twenty-four hours a day -- weather, health, and safety permitting. During daylight hours, elephants kept outdoors can tolerate moderate temperature extremes. Provisions must be made to protect animals from adverse weather, including intense sunlight, chilling rain, sleet, etc. Animals kept outdoors must be monitored frequently at temperatures below 40 degrees F (4.4 degrees C). Facilities may install outdoor heat sources to extend the amount of time the animals are able to remain outside.
- 1.1.2. While outdoors, all elephants must have access to shade during daylight hours in temperatures above 80 degrees F (27 degrees C) and when they are exposed to direct sunlight.
- 1.1.3. Indoor holding areas must be ventilated, and heated to a minimum temperature of at least 55 degrees F (12.8 degrees C) at all times of the year. One room must be capable of maintaining a temperature of at least 70 degrees F (21.1 degrees C) and be free of drafts, for accommodating sick or debilitated animals.

- 1.2. Humidity – There are no standards for humidity at this time. Information is limited, but this does not seem to be of major concern for elephant management.

### 1.3. Illumination

- 1.3.1. Natural daylight cycles are adequate for elephants, even in temperate regions. Indoor areas must be well illuminated during daylight hours, followed by a period of darkness. Fluorescent lighting provides a sufficient spectrum of illumination; skylights, in addition to interior lighting, are highly recommended. Ample interior lighting must be available, as it is especially important to maintain staff safety.

### 1.4. Space

- 1.4.1. Indoor space must provide adequate room for animals to move about and lie down without restriction. A minimum of 400 sq. ft (37.2 sq. m) is required for a single animal, approximately 800 sq. ft (74.3 sq. m) for two animals, and so on (AZA 1997). Because of their size and space requirements, bulls or cows with calves must have a minimum of at least 600 sq. ft (55.7 sq. m) (AZA 1997).
- 1.4.2. Outdoor yards must have at least 1,800 sq. ft (167.2 sq. m) for a single adult individual and an additional 900 sq. ft (83.6 sq. m) must be added for each additional animal (AZA 1997). If this space is the only location for exercise, then it is recommended that the space per elephant should be even greater.

\*\* Note: Institutions can petition for a variance from the current minimum indoor or outdoor space standards. The applicant must explain why their facilities are adequate, even though they do not meet the minimum size standard. Accreditation inspectors will take a holistic approach to accreditation inspections, rather than focusing on specific size measurements. Context is particularly important. For example, it may not be a problem that the indoor space requirements are under the standard by a small amount if a zoo is located in a warmer climate and the animals are outside most of the time. If, however, the zoo is located in a cooler climate and the animals are kept inside for many months during the winter, then the indoor space requirements must be met or, preferably, exceeded. Environmental enrichment programs should also be taken into consideration when evaluating space available.

- 1.4.3. Mature animals can reach a vertical height of 20 ft (6.1 m). Consideration of this must be given with regard to ceiling heights and fixtures (e.g., lights, heating units, plumbing, etc.) so that animals do not harm themselves or the facility.
- 1.4.4. All facilities must have the ability to separate and isolate animals to address behavioral concerns or allow veterinary procedures to occur (EMA 1999).
- 1.4.5. Outdoor yard surfaces must consist primarily of natural substrates (e.g., soil, sand, grass) that provide good drainage and have a cleanable, dry area for feeding (EMA 1999).
- 1.4.6. While outdoors, elephants must have access to sand or soil at all times for dust bathing (EMA 1999).
- 1.4.7. Rocks, tree stumps, or large sturdy objects must be provided in the exhibit so that the animals may use them for rubbing and scratching.

- 1.4.8. Elephant containment barriers must be in good condition and able to prevent elephant escapes. A wide variety of building materials can be used as long as they are able to withstand the animals' strength, contain the elephant in a specific space, and prohibit direct contact between elephants and the public.
- 1.4.9. Door and gate design is extremely important to ensure the safety of both elephants and keeper staff. Both doors and gates must be engineered to withstand extreme force. If mechanical opening devices, such as hydraulic or electrically powered drives are used, they must be able to be operated manually or with a backup generator in the case of a power failure.
- 1.4.10. Enclosures must be cleaned of excrement daily. Frequent daily manure removal is recommended and may be necessary for the maintenance of both sanitary and esthetic conditions (EMA 1999).
- 1.4.11. If the AZA Elephant SSP-managed population is to become sustainable, it is necessary to create housing for many more adult males (Wiese 2000, Wiese and Olson 2000). All institutions considering new construction for elephants should include holding space for adult males. Institutions modifying existing facilities should also make provisions for bull housing.
- 1.4.12. There are no standards on the visual, acoustic, and olfactory needs of elephants at this time.
- 1.4.13. There are no specific standards for the transportation of elephants at this time, but see Fowler (1995).

## 1.5. Water and Moats

- 1.5.1. While outdoors and weather permitting, elephants must have regular access to a water source, such as a pool, waterfall, misters/sprinklers, or wallow that provides enrichment and allows the animals to cool and/or bathe themselves.
- 1.5.2. Standing water in indoor floor areas can cause foot problems and become a breeding ground for bacteria. Floors must therefore be impervious to water, quick to dry, and sloped to a drain. Floor surfaces must be relatively smooth, but not enough so that they become slippery when wet. Conversely, very rough surfaces may cause excessive wear or irritate footpads.
- 1.5.3. Dry moats can pose a substantial threat to elephants and their use must be limited with the ultimate goal that they are eventually phased out. Moats that are deep, narrow-sided, and hard-bottomed can be particularly dangerous. Although there should be no risk of animals falling or being pushed into the moat, written animal extraction protocols must be in place for any moat that is more than 3 ft (1 m) deep, less than 10 ft (3 m) wide, and/or hard-bottomed.

## 2. **Biotic Variables**

### 2.1. Food and Water

- 2.1.1. Elephants must have access to clean, fresh drinking water (EMA 1999). When water containers are used, drinking water must be cleaned and refreshed at least twice a day. Containers must also be cleaned daily.
- 2.1.2. Fresh browse and produce should be used as dietary supplements and enrichment for the animals.

### 2.2. Group Composition

- 2.2.1. The minimum age offspring must remain with their mothers is three years. Some flexibility is necessary in cases of maternal rejection and when infants cannot be reestablished in their social group.
- 2.2.2. Institutions must have the ability to manage social compatibility as well as dominance and aggression among an elephant group (EMA 1999).
- 2.2.3. Institutions must have the ability to manage introductions and separations of a new female to a herd and, if the institution is a breeding facility, females to males for breeding, newborn calf to its mother, and calf and mother to the herd.
- 2.2.4. Institutions must provide an opportunity for each elephant to exercise and interact socially with other elephants (Taylor and Poole 1998, EMA 1999).
- 2.2.5. Adult males (six years and above) may be housed alone, but not in complete isolation (opportunities for tactile, olfactory, visual, and/or auditory interaction with other elephants must be provided) (Rasmussen et al. 1982).
- 2.2.6. A behavioral profile must be maintained for each individual elephant and updated annually.

- 2.2.7. All holding institutions must have a written environmental enrichment plan for their elephants and show evidence of implementation (Shepherdson et al. 1998, EMA, 1999, Shepherdson 1999).
- 2.2.8. Staff must be aware of each animal's social compatibility and the dominance hierarchies of the herd (EMA 1999).

### 2.3. Group Size

- 2.3.1. Zoos should make every effort to maintain elephants in social groupings. It is inappropriate to keep highly social female elephants singly (see Sukumar 1992, Taylor and Poole 1998, EMA 1999). Institutions should strive to hold no less than three female elephants wherever possible. All new exhibits and major renovations must have the capacity to hold three or more female elephants.

**\*\*Note:** It is understood that obtaining additional elephants for zoo exhibits can be difficult at this time. Temporary variances will therefore be considered regarding group size requirements. Institutions that do not currently meet the group size standard should demonstrate that they have requested assistance from the SSP in obtaining additional animals.

It is recognized that some socially aberrant adult females currently exist and these elephants can be managed singly if the institution has made every effort to introduce them to a social group and the SSP agrees that the anti-social behavior is not correctable.

- 2.4. Human-animal Interactions – A minimum of two qualified elephant keepers must be present during any contact with elephants. A qualified keeper is a person the institution acknowledges as a trained, responsible individual, capable of and specifically experienced in the training and care of elephants.
- 2.5. Introductions – There are no specific standards for elephant introductions at this time, but see Lindburg and Robinson (1986) and Krantz (1996).

## 3. **Health and Nutrition**

### 3.1. Diet

- 3.1.1. High quality and nutritionally correct food must be provided in sufficient quantities to maintain animal health and appropriate weight (EMA 1999). Hay and grain should be formulated to provide a complete diet as recommended by the Elephant SSP Nutrition Advisor.
- 3.1.2. There are no specific standards for elephant nutrition at this time, but see Dierenfeld (1995), Oftedahl et al. (1996) and Ullrey et al (1997).

### 3.2. Medical Management

- 3.2.1. A veterinarian with experience in large mammal medicine must be on call at all times to deal with routine elephant health evaluation and treatment and medical emergencies.
- 3.2.2. Each elephant must be given a thorough annual physical examination (Mikota et al. 1994).
- 3.2.3. All elephants must be visually inspected on a daily basis (EMA 1999). A general assessment must be made and any unusual activities should be recorded in the daily log at each inspection. Specifically, reports should include observations such as condition of urine and feces, eating and drinking patterns, administration of medications (if any), and general condition and behavior.
- 3.2.4. A veterinarian or trained veterinary technician must perform fecal examinations to look for parasites and other problems at least twice a year (Samuel et al. 2001). Results should be recorded.
- 3.2.5. All elephants must be trained to permit a complete body daily exam (include feet, eyes, ears, open mouth and tongue, teeth, and tusks) for any sign of abnormalities. Results should be recorded.
- 3.2.6. All elephants' body weight must be assessed and recorded at least twice a year (EMA 1999) through actual weighing or through the use of standardized body measurement tables, photographs, or similar, previously validated techniques (e.g., Nirmalan and Sreekumar 1990).
- 3.2.7. For management purposes, all elephants must be trained to accept injections, oral medications, insertion of ear or leg vein catheters, treatment of wounds, enemas, and urogenital examinations (Mikota et al. 1994, EMA 1999).



- 3.2.8. All elephants must be trained to accept regular collection of blood, urine, feces, saliva, semen, skin biopsy, and temporal gland secretion (Brown 1998, EMA 1999). Biological specimens should be stored according to the SSP Veterinary Advisor's guidelines on biomaterials collection.
- 3.2.9. All elephants' skin must be thoroughly inspected on a daily basis and cared for as needed through bathing, removal of dead skin, and treatment of dry skin or other skin problems (Mikota et al. 1994, EMA 1999).
- 3.2.10. Each elephant facility must have a written protocol for routine foot care and show evidence of its implementation (Mikota et al. 1994, Csuti et al. 2001). This protocol must include daily cleaning and inspection of each elephant's feet.
- 3.2.11. Baseline foot radiographs or thermographs of all adult elephants must be taken and kept on file. In some facilities, it may be appropriate to annually monitor selected elephants (i.e., those that have a history of chronic foot problems) (Csuti et al. 2001).
- 3.2.12. A written daily exercise program for each individual animal must be designed and followed (Taylor and Poole 1998). The program should be developed in consultation with the elephant manager, elephant handlers, and the staff veterinarian(s).
- 3.2.13. When forming new herds, Asian and African elephants should not be placed together in the same enclosure. Herpes viruses endemic to one species can be fatal in the other (Richman et al. 1996, 1999). In addition, there is concern that behavioral differences between the two species may lead to problems with dominance and aggression (Hutchins and Smith 1999).
- 3.2.14. Institutions must adhere to USDA APHIS requirements for testing and treatment of tuberculosis (USDA APHIS 2000, Mikota et al. 2000).

#### 4. Reproduction

- 4.1. Each male and female elephant of reproductive age (8 to 35 years) must have an initial reproductive assessment and follow-up assessments on a regular basis by transrectal ultrasound to verify reproductive status and assess overall reproductive health (Hermes et al. 2000, Hildebrandt et al. 2000 a,b). Exceptions include elephants with known reproductive problems, actively breeding animals, or those with documented medical/behavioral conditions that preclude them from breeding.
- 4.2 Each male and female elephant of reproductive age (8 to 35 years) must have hormone (progesterone or testosterone) values assessed through weekly (or bi-weekly) collection of blood samples (Brown 1998, 2000). Exceptions are elephants with known reproductive problems or those with documented medical/behavioral conditions that preclude them from breeding.

#### 5. Behavior management

##### 5.1. Training

- 5.1.1. Electrical devices designed for use on livestock, such as commercially manufactured electric prods and shocking collars/belts, are prohibited as routine training tools or for handling animals during exhibition. Electric prods are permissible only as an emergency safety device; however, their use is restricted to situations in which keepers feel the imminent need to defend themselves against elephant attacks, or to protect an elephant from possible injury (see Schanberger et al. 2001).
- 5.1.2. Elephant training terminology and descriptions of specific behaviors are outlined in the *AZA Schools for Zoo and Aquarium Personnel Principles of Elephant Management (PEM) Course Notebook* (AZA Board of Regent's 2001). Trained behaviors should allow the elephant staff access to the animal in order to accomplish all necessary animal care and management procedures and permit inter-institutional consistency. The PEM-recommended list of commands and their corresponding behaviors are ones that every elephant and elephant keeper must know so that basic husbandry and veterinary practices can be accomplished. Behaviors should be reinforced so that all elephants attain close to 100% compliance upon request of the elephant staff (Sevenich et al. 1998).

Appropriate elephant training may employ several training aids or “tools” (see PEM Course notebook for a list and description of some elephant training tools and procedures). The goal of a good trainer is to be able to reduce the amount of time any particular training aid is used (Roocroft and Zoll 1994).

The AZA considers the following training tools/techniques to be inappropriate for use at member institutions:

- a. Insertion of any implement into any bodily orifice, unless directed by a veterinarian specifically in connection with training for a medical or reproductive procedure.
- b. Striking an elephant with anything more substantial than an ankus (a traditional training tool used by elephant trainers)
- c. Striking an elephant with any sharp object, including the hook of an ankus (Fowler 1995).
- d. Striking an elephant on or around any sensitive area, such as the eyes, mouth, ears, or genital region.
- e. No tools used in training should be applied repeatedly and with such force that they cause any physical harm to an animal (i.e., breaking of the skin, bleeding, bruising, etc.).
- f. Withholding or reducing an animal’s daily-recommended amount of food and or water.
- g. Withholding veterinary care for any reason.

*If properly executed training procedures are ineffective in eliminating aggressive or inappropriate behavior in a given animal, institutions should consider other alternatives, including transfer to a facility with more experienced staff or a different management system. Protracted and repeated use of corporal discipline in training is of serious ethical concern and AZA considers abusive training practices to be unacceptable. Further, elephants that are untrained, unexercised, or unable to complete minimum behavioral requirements may be considered neglected and thereby abused.*

- 5.2. Management Systems – Different elephant management systems have both advantages and disadvantages (Desmond and Laurie 1991, Doyle 1993, Preist et al. 1998, Schmid 1998). AZA standards for elephant management recognize that a diversity of approaches exist, but encourage members to continue to experiment with the goal of maximizing elephant health and reproduction and minimizing risk of injury to keeper staff (Lenhardt 1991, 2001, Chapple and Ridgway 2001). System definitions have been defined in the PEM Course and are as follows:

**Free Contact** – The direct handling of an elephant when the keeper and elephant share the same unrestricted space. Neither the use of chains nor the posture of the elephant alters this definition.

**Protected Contact** – *Handling of an elephant when the keeper and the elephant do not share the same unrestricted space. Typically in this system the keeper has contact with the elephant through a protective barrier of some type while the elephant is not spatially confined and is free to leave the work area at will. This includes confined contact, where the handling of an elephant through a protective barrier where the elephant is spatially confined, as in an Elephant Restraint Device (ERD).*

- 5.3. Management Protocols – Each AZA member institution and related facility that holds elephants must have a written elephant management policy. This policy must be consistent with AZA standards for elephant management and care, and must, at minimum, include a description of the institution’s:
- a. Elephant management program’s missions and goals (EMA 1999).
  - b. Elephant management policies, including guidelines for handling, training, and translocation (EMA 1999).
  - c. Plan to separate animals from each other, safely manage elephants that are aggressive toward other elephants, safely move elephants from one location to another, and safely manage elephants that are aggressive toward humans (EMA 1999).
  - d. Staff management policies, including guidelines for keeper safety (EMA 1999).

- e. Individual elephant profiles and incident reports for all cases in which elephants show aggression toward keepers or the public, regardless if any injury actually resulted.
- f. Emergency response protocol. Institutions should be able to demonstrate readiness to respond to an emergency situation, such as an elephant escape or keeper injury (EMA 1999).

#### 5.4. Safety

- 5.4.1. All elephant-holding institutions must undertake at least a semi-annual elephant facility and program safety assessment, identify safety needs, and fully implement any corrective measures. Each facility shall establish a safety assessment team. The team may include elephant staff, management staff, animal health care staff, and experts in the area of risk management and safety. Each facility should establish the make-up of the team based on its own needs and resources. A written record must be kept for each inspection and that record be reviewed and its recommendations acted upon.
- 5.4.2. In the interest of public safety, AZA strongly discourages visitor-elephant interactions, outside of the primary enclosure. AZA strongly discourages the practice of walking elephants in public areas during public hours (BOD 3/25/03).
- 5.4.3. In the interest of safety, AZA strongly encourages members to discontinue public elephant rides (BOD 3/21/00).

#### 5.5. Restraint

- 5.5.1. Chaining is acceptable as a method of temporary restraint (Fowler 1995). However, elephants must not be subjected to prolonged chaining (for the majority of a 24-hour period) unless necessary for veterinary treatment or transport. Institutions that regularly use chains for some portion of a day must alternate the chained foot on a daily basis. All new construction and major renovations must be constructed in a manner that minimizes or eliminates the need for chaining (Schmid 1995, Gruber et al. 2000).  
\*\*Note: If AZA policies on chaining require new construction, rather than procedural changes, then institutions will have five years to comply with this requirement. Plans must be in place within three years and institutions must apply for a variance from the AZA Accreditation Commission.
- 5.5.2. All elephant holding facilities should install an Elephant Restraint Device (ERD) (Schmidt et al. 1991). However, all bull-holding facilities, as well as those that manage elephants in protected contact, must have an ERD. Use of the ERD should not be weather dependent.
- 5.5.3. Each elephant must be trained to enter and stay in the ERD, if one is available, for husbandry, veterinary, reproductive assessment, and other procedures to occur in a safe and efficient manner (Schmidt 1991).
- 5.5.4. If a facility does not have an ERD, staff must demonstrate a method of restraint that allows necessary husbandry, veterinary, and reproductive procedures to occur in a safe and efficient manner (Fowler 1995).

### 6. **Staff Organization and Training**

- 6.1. Each institution must have one person, designated as the elephant manager. This individual is responsible for (1) staff training; (2) developing and maintaining the program; and (3) communicating with others about the elephant program. The elephant manager must also demonstrate knowledge about all emergency protocols and continually improve elephant management techniques as the industry standards evolve.
- 6.2. All elephant managers must attend the AZA Principles of Elephant Management Course (BOD 3/25/03), preferably within 18 months following acceptance/promotion to the position. In addition, every elephant keeper is encouraged to attend this course. The BOD directs the Professional Development Committee to develop a mechanism for the PEM graduates to remain current in best practices in elephant management (BOD 3/25/03).

- 6.3.** The BOD instructs the Professional Development Committee to hold best practices workshops on elephant management systems and transitioning from on management system to another (BOD 3/25/03).

## **7. Conservation, Education, and Research**

### **7.1. Education Programs**

- 7.1.1. Every institution should institute a program to educate zoo visitors about elephant and elephant conservation issues (EMA 1999, Smith and Hutchins 2000). Assistance is available from the Elephant SSP Education Advisor.
- 7.1.2. Every institution should have up-to-date educational graphics and/or information about elephants on display to the public.

### **7.2. Conservation and Research Activities**

- 7.2.1. AZA zoos that currently exhibit or desire to exhibit elephants should make every effort to maintain elephants in their collections so that they can contribute to conservation through public education, scientific research, and the support of field conservation. Elephants are an important flagship species and the cornerstone of many members' African and Asian exhibit areas. (BOD 3/21/00)
- 7.2.2. Every institution should contribute in some way to elephant research activities (Keele and Dimeo-Ediger 1997, EMA 1999, Smith and Hutchins 2000). Involvement in one or more of the following disciplines is strongly recommended: behavior, cognition, reproduction, communication, enrichment, health (disease/pathology, nutrition), and education.
- 7.2.3. Every institution should contribute in some way to *in situ* conservation of elephants and their habitats (EMA 1999, Smith and Hutchins 2000).
- 7.2.4. AZA members are strongly encouraged to provide financial, personnel, logistical, and other support for priority research and conservation initiatives listed in the AZA Elephant SSP/TAG Action Plan (Wiese and Hutchins 1994).

## **8. Cooperative Management (BOD 3/21/00)**

### **8.1. SSP Participation**

- 8.1.1. SSP participants should be given highest priority in elephant dispositions, whether through breeding or importation.
- 8.1.2. AZA institutions should cooperate among themselves to pursue self-sustainability with their elephant populations. Since self-sustainable elephant populations are not possible currently within AZA, then cooperation with outside organizations should be considered on a case-by-case basis.
- 8.1.3. AZA zoos may provide elephants or their gametes to approved non-members on a case-by-case basis.

### **8.2. Importation**

- 8.2.1. All elephant imports must be approved within the AZA Elephant SSP/TAG. Periodic importation may be used as a way to maintain population viability in the North American Elephant SSP/TAG population. The SSP/TAG and participating institutions will employ a combination of breeding and importation with the goal of eventually creating a self-sustaining population. When acquiring elephants for the SSP/TAG, first consider captive animals in substandard conditions in North America, then captive animals outside the U.S., then wild animals surplus to the needs of the managed population or those to be captured or killed because of human-animal conflicts (especially those that are going to be killed).
- 8.2.2. An effort should be made to assess the potential for cooperating with sister organizations, such as the European Association of Zoos and Aquariums (EAZA).

## **Documentation**

AZA Regents. 2001. *AZA Schools for Zoo and Aquarium Personnel: Principles of Elephant Management*. American Zoo and Aquarium Association, Silver Spring, MD.

Brown, J. (1998) The need for routine elephant blood draws. *Animal Keeper's Forum* 25: 357-359.

- Brown, J. 2000. Reproductive endocrine monitoring of elephants: An essential tool for assisting captive management. *Zoo Biology* 19: 347-367.
- Chapple, C. and Ridgway, D. 2001. Elephant handling and an analysis of the risks. *Journal of the Elephant Manager's Association* 11: 163-165.
- Csuti, B., Sargent, E.L., and Bechert, U.S., eds. 2001. *The Elephant's Foot: Prevention and Care of Foot Conditions in Captive Asian and African Elephants*. Iowa State University Press, Ames, IA.
- Desmond, T. & G. Laule. 1991. Protected contact: Elephant handling. Pp. 84-91 in *Proceedings of the 12<sup>th</sup> International Elephant Workshop*. Burnet Park Zoo, Syracuse, NY.
- Dierenfeld, E. 1995. Nutrition and feeding. *Journal of the Elephant Manager's Association* 6: 32-39.
- Doyle, C. 1993. Protected/confined contact as a supplement in a free contact system. Pp. 30-32 in *Proceedings of the 14<sup>th</sup> Annual Elephant Managers Conference*. Marine World Africa USA, Vallejo, CA.
- EMA 1999. The EMA standard guidelines for elephant management. *Journal of the Elephant Manager's Association* 10: 203-204.
- Fowler, M.E. 1995. *Restraint and Handling of Wild and Domestic Animals*. Second Edition. Iowa State University Press, Ames, IA.
- Gruber, T.M., Friend, T.H., Packard, J.M., Beaver, B., and Bushong, D. 2000. Variation in stereotypic behavior related to restraint in circus elephants. *Zoo Biology* 19: 209-221.
- Hermes, R., Olson, D., Goritz, F., Brown, J.L., Schmitt, D.L., Hagan, D., Peterson, J.S., Fritsch, G., and Hildebrandt, T.B. 2000. Ultrasonography of the estrous cycle in female African elephants (*Loxotana africana*). *Zoo Biology* 19: 369-382.
- Hildebrandt, T.B., Goritz, F., Pratt, N., Brown, J.L., Montali, R., Schmidt, D.L., Fritsch, G. and Hermes, R. 2000a. Ultrasonography of the urogenital tract in elephants (*Loxotana africana* and *Elaphas maximus*): An important tool for assessing female reproductive function. *Zoo Biology* 19: 321-332.
- Hildebrandt, T.B., Hermes, R., Pratt, N.C., Fritsch, G., Blottner, S., Schmidt, D.L., Ratanakorn, P., Brown, J.L., Reitschel, W. and Goritz, F. 2000b. Ultrasonography of the urogenital tract in elephants (*Loxotana africana* and *Elaphas maximus*): An important tool for assessing male reproductive function. *Zoo Biology* 19: 333-345.
- Hutchins, M. and B.R. Smith. 1999. *AZA Elephant Planning Initiative: On the Future of Elephants in North American Zoos*. American Zoo and Aquarium Association, Silver Spring, MD.
- Keele, M. and N. Dimeo-Ediger. 1997. *AZA Elephant Masterplan 1997-2002*. Oregon Zoo, Portland, OR.
- Krantz, K. 1996. Introduction, socialization and crate training. Pp. 78-87 in Kleiman, D.G., Allen, M., Thompson, K.V., and Lumpkin, S., eds. *Wild Mammals in Captivity*. Smithsonian Institution Press, Washington, DC.
- Lenhardt, J. 1991. Elephant handling: A problem of risk management and resource allocation. *AAZPA Annual Conference Proceedings*: 569-575.
- Lenhardt, J. 2001. Response. *Journal of the Elephant Manager's Association* 11: 165-166.
- Lindburg, D.G. and Robinson, P. 1986. Animal introductions: Some suggestions for easing the trauma. *Animal Keeper's Forum* 13: 8-11.
- Mikota, S.K., Larson, R.S. and Montali, R. 2000. Tuberculosis in elephants in North America. *Zoo Biology*: 393-403.
- Mikota, S.K., Sargent, E., and Ramglack, G.S. 1994. *Medical Management of the Elephant*. Indria Publishing House, West Bloomfield, MI.
- Oftedahl, O., Baer, D.J., and Allen, M.E. 1996. The feeding and nutrition of herbivores. Pp. 129-138 in Kleiman, D.G., Allen, M., Thompson, K.V., and Lumpkin, S., eds. *Wild Mammals in Captivity*. Smithsonian Institution Press, Washington, DC.

- Samuel, W.M., Pybus, M.J., and Kocan, A.A. 2001. *Parasitic Diseases of Wild Mammals*. Second Edition. Iowa State University Press, Ames, IA.
- Sreekumar, K.P. and Nirmalan, G. 1990. Estimation of body weight in Indian elephants (*Elaphus maximus indicus*). *Veterinary Research Communication* 14: 5-17.
- Priest, G., Antrim, J. Gilbert, J. and Hare, V. 1998. Managing multiple elephants using protected contact at San Diego's Wild Animal Park. *Soundings* 23 (1): 20-24.
- Rasmussen, L.E.L., Schmidt, M.J., Henneous, R., Groves, D., Daves, G.D. Jr. 1982. Asian bull elephants: Flehman-like responses to extractable components in female elephant estrus urine. *Science* 217: 159-162.
- Richman, L.K., R.J. Montali, R.C. Cambre, J.M. Lehnhardt, Kennedy, S.K. Potgieter, L. 1996. Endothelial inclusion body disease: A newly recognized fatal herpes-like infection in Asian elephants. *Proceedings of the American Association of Zoo Veterinarians' Annual Conference*: 483-485.
- Richman, L.K., R.J. Montali, R.L. Gerber, M.A. Kennedy, J. Lenhardt, T. Hildebrandt, D. Schmitt, D. Hardy, D.J. Alecendor & G.S. Hayward. 1999. Novel endotheliotropic herpesviruses fatal for Asian and African elephants. *Science* 283: 1-5.
- Rooft, A. and Zoll, A.T. 1994. *Managing Elephants: An Introduction to Their Training and Management*. Fever Tree Press, Ramona, CA.
- Schanberger, A. et al. 2001. Discussion on chaining, electricity continues. *Journal of the Elephant Management Association* 11: 160-161.
- Schmid, J. 1995. Keeping circus elephants temporarily in paddocks-The effects on their behaviour. *Animal Welfare* 4: 87-101.
- Schmid, J. 1998. Hands off, hands on: Some aspects of keeping elephants. *International Zoo News* 45: 476-486.
- Schmidt, M.J., Henneous, R.L., Haight, J.D., Rutkowski, C., and Sanford, J. 1991. *The Elephant Restraint Chute Owner's Manual*. Washington Park Zoo, Portland, OR.
- Sevenich, M., Upchurch, B., and Mellen, J. 1998. The science of animal management: Evaluating the effects of training and enrichment on elephant behavior. *Journal of the Elephant Manager's Association* 9: 201-205.
- Shepherdson, D.J. 1999. Environmental enrichment for elephants: Current status and future directions. *Journal of the Elephant Manager's Association* 10: 69-77.
- Shepherdson, D.J., Mellen, J.D., and Hutchins, M. eds. 1998. *Second Nature: Environmental Enrichment for Captive Animals*. Smithsonian Institution Press, Washington, D. C.
- Smith, B. and Hutchins, M. 2000. The value of captive breeding programmes to field conservation: Elephants as an example. *Pachyderm* 28: 101-109.
- Sukumar, R. 1992. *The Asian Elephant: Ecology and Management*. Cambridge University Press, Cambridge, U.K.
- Taylor, V.J. and Poole, T.B. 1998. Captive breeding and infant mortality in Asian elephants: A comparison between twenty western zoos and three eastern elephant centers. *Zoo Biology* 17: 311-332.
- Ullrey, D.E., Crissey, S.D., and Hintz, H.F. 1997. Elephants: Nutrition and dietary husbandry. Fact sheet #004. *AZA Nutrition Advisory Group Handbook*. American Zoo and Aquarium Association, Bethesda, MD.
- USDA APHIS. 2000. *Guidelines for the Control of Tuberculosis in Elephants*. United States Department of Agriculture, Washington, DC.
- Wiese, R.J. 2000. Asian elephants are not self-sustaining in North America. *Zoo Biology* 19: 299-309.
- Wiese, R.J. and Hutchins, M. 1994. *Species Survival Plans: Strategies for Wildlife Conservation*. American Zoo and Aquarium Association, Bethesda, MD.
- Wiese, R.J. and Olson, D. 2000. State of the North American African elephant population and projections for the future. *Zoo Biology* 19: 311-320.

## ANIMAL CONTACT WITH THE GENERAL PUBLIC

Nearly every contact with other living organisms, whether it be with humans or other animals, carries some risk of disease transmission. Diseases that are spread from animals to humans are called zoonoses (adj. = zoonotic diseases). Responsible zoos should and do make reasonable attempts to limit the risk of the spread of disease from the animals in their care to their employees and to the general public.<sup>4,9</sup> For the general public, the risk of contracting disease from most zoo animals is minimal to nonexistent due to their distance and isolation from the animals. However, contact areas for the general public can present increased risks that can be controlled with reasonable precautions. For this paper, contact areas refers to those areas in which there is direct physical contact between animals and people. These precautions are most effective when they are part of an overall preventative medicine program for the zoological park.<sup>5,8</sup>

Risks of zoonotic disease can be markedly reduced by avoiding direct animal contact. However, this forgoes many valuable educational experiences and the establishment of a direct relationship between animals and the public. A reasonable alternative is adequate hand washing for those in direct contact with the animals. Hand washing is perhaps the single most effective personal hygiene procedure for reducing the risk of infection.<sup>4</sup> Given that fact, all areas in which the public has direct contact with animals should have access to hand washing facilities that are in the immediate vicinity of the contact (or an equivalent; e.g., bacteriocidal hand-wipes).

As outlined by the AZA and the USDA's Animal Welfare Act, animal contact areas should always be supervised by a trained zoo representative. Obviously, animals that are ill, should not be used. Human food consumption should not occur in the immediate area of contact. Additionally, zoological institutions should be aware that the Centers for Disease Control (CDC) standards advise additional precautions may be necessary for humans that they classify as at increased risk of disease, including those that are immunocompromised. When a reportable disease is identified, all appropriate local, state, and federal regulatory officials should be contacted.

More detailed information on zoonotic diseases may be obtained from a variety of veterinary and medical textbooks and journals,<sup>1,6</sup> and from public health officials. Additionally, the AZA's Quarantine Protocol provides further testing recommendations.<sup>7</sup> Also referenced at the end of this report is a review of some of the risks associated with animals and immunocompromised humans.<sup>3</sup> Following is a list of disease considerations and control programs recommended for animals commonly used in contact programs. Depending on the disease and history of the animals, testing protocols may vary from an initial or incoming quarantine test, to yearly repetitions. This protocol should be at the discretion of the institutional veterinarian.

### *Reptiles and Amphibians*

Most notable among the disease risks presented by reptiles is the transmission of *Salmonella* sp. Salmonellosis is a common and often nonpathogenic infection of reptiles (in one survey, according to species, the infection rate ranged from 3 to 55 percent).<sup>2</sup> Diagnosis may be difficult. A cloacal swab or other sample positive on culture for *Salmonella* sp. is diagnostic for infection. However, due to intermittent fecal shedding of these organisms, false negative cultures frequently occur. So it is difficult, if not impossible to ascertain with certainty that an animal is *Salmonella* "negative". Therefore, all reptiles should be treated as *salmonella* carriers. Attempts to eliminate *Salmonella* carriers with antibiotic therapy have been unsuccessful and may be contraindicated as they can lead to chronic carrier states and increased resistance of these bacteria to antibiotics. Risks of transmission can be reduced in two ways: 1) avoid all direct contact with reptiles or surfaces with which they have come in contact, or, 2) allow only supervised contact followed by hand washing as previously described.

Reptiles can also transmit a variety of other organisms, mostly gastrointestinal in origin, and the same procedures described above should be effective in reducing the risks of transmission to those in contact. These other risks include other gram negative bacterial infections. Reptiles used in contact areas should be free of snake mites and pentastomids (e.g., *Armillifer* sp.).

Amphibians may present several of the same zoonotic risks as reptiles, so again, contact should be followed by hand washing.

### *Birds*

Birds used in contact areas should be free of chlamydiosis and zoonotic parasites (e.g., giardia). Chlamydiosis testing is appropriate for members of the orders *Psittaciformes*, *Galliformes*, and *Columbiformes*. As in reptiles, salmonellosis can be present and difficult to diagnose and so, birds should be treated as suspects. In the general human population, avian tuberculosis is generally considered to have very low zoonotic potential, however, it can present significant risks for immunocompromised individuals. Care should be taken to avoid public contact with known infected flocks.

### *Mammals—General*

All mammals are considered at risk for infection with rabies. Current rabies vaccines are licensed for use in only six domestic species: dogs, cats, ferrets, sheep, horses, and cows. For wild-caught individuals of most species, a prolonged (three-six month) quarantine is necessary to reduce the risk that they are infected with the virus. Even then, some species such as skunks, foxes, raccoons, and bats may still represent a greater risk.

Any skin lesions compatible with dermatomycosis (“ringworm”) should be carefully evaluated in order to prevent transmission to those in direct contact with them.

### *Mammals—Primates*

Unless extensive testing has been performed for a variety of viral, parasitic, and bacterial diseases, all direct public contact with primates should be avoided. Public contact also places the primates at considerable risk of contracting diseases from humans.

### *Mammals—Small Ruminants/Neonatal Ruminants*

All small ruminants; e.g., pygmy goats, sheep, dwarf cattle, llamas, etc., that are greater than six months of age and used in contact areas should be tested for tuberculosis, brucellosis, and leptospirosis. Obviously, any animals with lesions compatible with sarcoptic mange (mange mite = *Sarcoptes scabiei*) should be removed from contact. Any animals with lesions compatible with contagious eczema (“orf” in man) should be tested and removed from contact until proven negative. Calves should be checked and found free of *Cryptosporidium* sp. and other infections with protozoa. Other diseases of a potential zoonotic nature include infection with *Coxiella burnetii* (Q-fever) in endemic areas. Additionally, recent reports indicate that infection with Johnes disease (*Mycobacterium paratuberculosis*) may present zoonotic concerns, primarily in goats.

### *Mammals—Swine*

These animals should be checked for gastrointestinal infection with *Balantidium* sp. efforts made to control this infection. Additionally, consideration should be given to regular vaccination for the bacterial disease, *Erysipelothrix rhusiopathae* (“diamond skin disease”).

### *Mammals—Small Carnivores*

In general, due to the potential for bites, small carnivores should be used in contact areas only with extreme caution. Due to the risk of bites, small felids are generally not used in direct contact. If they are, care must be taken that such animals are negative for infection with *Toxoplasma gondii*. All carnivores should be tested for and be free of zoonotic species of roundworms such as *Baylascaris* sp. Small



carnivores (e.g., raccoons and skunks) obtained from the wild may present a greater risk of rabies and their use should be avoided in contact areas.

#### *Mammals—Rodents and Lagomorphs*

When using rodents and lagomorphs in contact areas, consideration should be given to the risk of bites, past history, and exposure to hantavirus, salmonella, and tularemia.

#### *Mammals—Chiroptera*

At the present time, CDC regulations effectively prohibit the use of bats in direct contact areas.

#### *Fish/Aquatic Tanks*

Due to the potential for infection with atypical mycobacteria, *Vibrio* sp., *Erysipelothrix rhusiopathae*, and a variety of gram negative bacteria, contact with fish or touch tanks should also be followed by hand washing.

#### *Summary*

It is important to evaluate the risks of zoonotic diseases in a rational context. Contact animals can provide a valuable educational experience for visitors and participants in public programs to zoological parks and aquariums. Most zoonotic diseases of concern in public areas can be prevented with reasonable testing and quarantine programs and proper hand-washing techniques.

These are intended to be general guidelines and the risk of diseases can vary by area, so each zoological institution should develop its own zoonoses control program. Two excellent resources for reviewing testing and preventative procedures for many of these diseases are the American Association of Zoo Veterinarians' *Infectious Disease Notebook*,<sup>1</sup> and the American Veterinary Medical Association's *Zoonoses Updates*.<sup>6</sup> In summary, the most effective method for disease prevention is a complete and thorough veterinary program and common sense sanitary measures.

#### References Cited

1. Amand, W: Infectious Disease Reviews, American Association of Zoo Veterinarians, Media, Pennsylvania, USA, 1993.
2. Cambre, RC, DE Green, EE Smith, RJ Montali, M Bush: Salmonellosis and arizonosis in the reptile collection at the National Zoological Park. *J Am Vet Med Assoc* 177:800-803, 1980.
3. Greene, CF: Pet ownership for immunocompromised people. In Bonagura, JD (Ed.) *Current Vet. Therapy XII*, W.B. Saunders Co., Philadelphia, Pp. 271-276, 1995.
4. Heuschele, W., C. Bredeson Heuschele: Zoonotic disease - reducing the risks. In: 1988 Proceedings of the American Association of Zoological Parks and Aquariums, Bethesda, Maryland, Pp. 591-598, 1988.
5. Junge, RE: Preventive medicine recommendations. In Amand, W (Ed.): Infectious Disease Reviews, American Association of Zoo Veterinarians, Media, Pennsylvania, USA, Section 1, 1993.
6. Leveque, NW (ed.): Zoonosis updates. American Veterinary Medical Association, Schaumburg, Illinois, USA, 1995.
7. Miller, RE: Quarantine procedures for AZA-accredited zoological parks. In: 1995 Proceedings of the American Association of Zoo Veterinarians, Media, Pennsylvania, Pp. 165-172, 1995.
8. Miller, RE: Veterinary services in zoos and aquariums. In Wylie, D (ed.), *Zoo and Aquarium Fundamentals*, American Zoo and Aquarium Association, Bethesda, Maryland, 1996 (in press).
9. Shellabarger, WC: Zoo personnel health program recommendations. In Amand, W (Ed.): Infectious Disease Reviews, American Association of Zoo Veterinarians, Media, Pennsylvania, USA, Section 7, 1993.

## **AZA Program Animal Policy**

**Approved by the AZA Board of Directors 2003**

**Updated and Approved July 2008**

The Association of Zoos & Aquariums (AZA) recognizes many benefits for public education and, ultimately, for conservation in program animal presentations. AZA's Conservation Education Committee's *Program Animal Position Statement* summarizes the value of program animal presentations (see pages 42-44).

For the purpose of this policy, a program animal is described as an animal presented either within or outside of its normal exhibit or holding area and intended to have regular proximity to or physical contact with trainers, handlers, or the public, or to be part of an ongoing conservation education / outreach program.

Program animal presentations bring a host of responsibilities, including the welfare of the animals involved, the safety of the animal handler and public, and accountability for the take-home, educational messages received by the audience. Therefore, AZA requires all accredited institutions that make program animal presentations to develop an institutional program animal policy that clearly identifies and justifies those species and individuals approved as program animals and details their long-term management plan and educational program objectives.

AZA's accreditation standards require that education and conservation messages must be an integral component of all program animal presentations. In addition, the accreditation standards require that the conditions and treatment of animals in education programs must meet standards set for the remainder of the animal collection, including species-appropriate shelter, exercise, sound and environmental enrichment, access to veterinary care, nutrition, and other related standards. In addition, providing program animals with options to choose among a variety of conditions within their environment is essential to ensuring effective care, welfare, and management. Some of these requirements can be met outside of the primary exhibit enclosure while the animal is involved in a program or is being transported. For example, housing may be reduced in size compared to a primary enclosure as long as the animal's physical and psychological needs are being met during the program; upon return to the facility the animal should be returned to its species-appropriate housing as described above.

# PROGRAM ANIMAL POSITION STATEMENT

LAST REVISION 1/28/03

**THE CONSERVATION EDUCATION COMMITTEE (CEC) OF THE ASSOCIATION OF ZOOS AND AQUARIUMS SUPPORTS THE APPROPRIATE USE OF PROGRAM ANIMALS AS AN IMPORTANT AND POWERFUL EDUCATIONAL TOOL THAT PROVIDES A VARIETY OF BENEFITS TO ZOO AND AQUARIUM EDUCATORS SEEKING TO CONVEY COGNITIVE AND AFFECTIVE (EMOTIONAL) MESSAGES ABOUT CONSERVATION AND WILDLIFE.**

Utilizing these animals allows educators to strongly engage audiences. As discussed below, the use of program animals has been demonstrated to result in lengthened learning periods, increased knowledge acquisition and retention, enhanced environmental attitudes, and the creation of positive perceptions concerning zoo and aquarium animals.

## Audience Engagement

Zoos and aquariums are ideal venues for developing emotional ties to wildlife and fostering an appreciation for the natural world. However, developing and delivering effective educational messages in the free-choice learning environments of zoos and aquariums is a difficult task.

Zoo and aquarium educators are constantly challenged to develop methods for engaging and teaching visitors who often view a trip to the zoo as a social or recreational experience (Morgan and Hodgkinson, 1999). The use of program animals can provide the compelling experience necessary to attract and maintain personal connections with visitors of all motivations, thus preparing them for learning and reflection on their own relationships with nature.

Program animals are powerful catalysts for learning for a variety of reasons. They are generally active, easily viewed, and usually presented in close proximity to the public. These factors have proven to contribute to increasing the length of time that people spend watching animals in zoo exhibits (Bitgood, Patterson and Benefield, 1986, 1988; Wolf and Tymitz, 1981).

In addition, the provocative nature of a handled animal likely plays an important role in captivating a visitor. In two studies (Povey, 2002; Povey and Rios, 2001), visitors viewed animals three and four times longer while they were being presented in demonstrations outside of their enclosure with an educator than while they were on exhibit. Clearly, the use of program animals in shows or informal presentations is effective in lengthening the potential time period for learning and overall impact.

Program animals also provide the opportunity to personalize the learning experience, tailoring the teaching session to what interests the visitors. Traditional graphics offer little opportunity for this level of personalization of information delivery and are frequently not read by visitors (Churchman, 1985; Johnston, 1998). For example, Povey (2001) found that only 25% of visitors to an animal exhibit read the accompanying graphic; whereas, 45% of visitors watching the same animal handled in an educational presentation asked at least one question and some asked as many as seven questions. Having an animal accompany the educator allowed the visitors to make specific inquiries about topics in which they were interested.

## Knowledge Acquisition

Improving our visitors' knowledge and understanding regarding wildlife and wildlife conservation is a fundamental goal for many zoo educators using program animals. A growing body of evidence supports the validity of using program animals to enhance delivery of these cognitive messages as well.

- MacMillen (1994) found that the use of live animals in a zoomobile outreach program significantly enhanced cognitive learning in a vertebrate classification unit for sixth grade students.
- Sherwood and his colleagues (1989) compared the use of live horseshoe crabs and sea stars to the use of dried specimens in an aquarium education program and demonstrated that students made the greatest cognitive gains when exposed to programs utilizing the live animals.
- Povey and Rios (2002) noted that in response to an open-ended survey question (“Before I saw this animal, I never realized that . . .”), visitors watching a presentation utilizing a program animal provided 69% cognitive responses (i.e., something they learned) versus 9% made by visitors viewing the same animal in its exhibit (who primarily responded with observations).
- Povey (2002) recorded a marked difference in learning between visitors observing animals on exhibit versus being handled during informal presentations. Visitors to demonstrations utilizing a raven and radiated tortoises were able to answer questions correctly at a rate as much as eleven times higher than visitors to the exhibits.

## Enhanced Environmental Attitudes

Program animals have been clearly demonstrated to increase affective learning and attitudinal change.

- Studies by Yerke and Burns (1991) and Davison and her colleagues (1993) evaluated the effect live animal shows had on visitor attitudes. Both found their shows successfully influenced attitudes about conservation and stewardship.
- Yerke and Burns (1993) also evaluated a live bird outreach program presented to Oregon fifth-graders and recorded a significant increase in students' environmental attitudes after the presentations.
- Sherwood and his colleagues (1989) found that students who handled live invertebrates in an education program demonstrated both short and long-term attitudinal changes as compared to those who only had exposure to dried specimens.
- Povey and Rios (2002) examined the role program animals play in helping visitors develop positive feelings about the care and well-being of zoo animals.
- As observed by Wolf and Tymitz (1981), zoo visitors are deeply concerned with the welfare of zoo animals and desire evidence that they receive personalized care.

## Conclusion

Creating positive impressions of aquarium and zoo animals, and wildlife in general, is crucial to the fundamental mission of zoological institutions. Although additional research will help us delve further into this area, the existing research supports the conclusion that program animals are an important tool for conveying both cognitive and affective messages regarding animals and the need to conserve wildlife and wild places.

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## References

- Bitgood, S., Patterson, D., & Benefield, A. (1986). Understanding your visitors: ten factors that influence visitor behavior. *Annual Proceedings of the American Association of Zoological Parks and Aquariums*, 726-743.
- Bitgood, S., Patterson, D., & Benefield, A. (1988). Exhibit design and visitor behavior. *Environment and Behavior*, 20 (4), 474-491.

- Churchman, D. (1985). How and what do recreational visitors learn at zoos? Annual Proceedings of the American Association of Zoological Parks and Aquariums, 160-167.
- Davison, V.M., McMahon, L., Skinner, T.L., Horton, C.M., & Parks, B.J. (1993). Animals as actors: take 2. Annual Proceedings of the American Association of Zoological Parks and Aquariums, 150-155.
- Johnston, R.J. (1998). Exogenous factors and visitor behavior: a regression analysis of exhibit viewing time. *Environment and Behavior*, 30 (3), 322-347.
- MacMillen, Ollie. (1994). Zoomobile effectiveness: sixth graders learning vertebrate classification. Annual Proceedings of the American Association of Zoological Parks and Aquariums, 181-183.
- Morgan, J.M. & Hodgkinson, M. (1999). The motivation and social orientation of visitors attending a contemporary zoological park. *Environment and Behavior*, 31 (2), 227-239.
- Povey, K.D. (2002). Close encounters: the benefits of using education program animals. Annual Proceedings of the Association of Zoos and Aquariums, in press.
- Povey, K.D. & Rios, J. (2002). Using interpretive animals to deliver affective messages in zoos. *Journal of Interpretation Research*, in press.
- Sherwood, K. P., Rallis, S. F. & Stone, J. (1989). Effects of live animals vs. preserved specimens on student learning. *Zoo Biology* 8: 99-104.
- Wolf, R.L. & Tymitz, B.L. (1981). Studying visitor perceptions of zoo environments: a naturalistic view. In Olney, P.J.S. (Ed.), *International Zoo Yearbook* (pp.49-53). Dorchester: The Zoological Society of London.
- Yerke, R. & Burns, A. (1991). Measuring the impact of animal shows on visitor attitudes. Annual Proceedings of the American Association of Zoological Parks and Aquariums, 532-534.
- Yerke, R. & Burns, A. (1993). Evaluation of the educational effectiveness of an animal show outreach program for schools. Annual Proceedings of the American Association of Zoological Parks and Aquariums, 366-368.

## RECOMMENDATIONS FOR DEVELOPING AN INSTITUTIONAL PROGRAM ANIMAL POLICY

### Rationale

Membership in AZA requires that an institution meet the AZA Accreditation Standards collectively developed by our professional colleagues. Standards guide all aspects of an institution's operations; however, the accreditation commission has asserted that ensuring that member institutions demonstrate the highest standards of animal care is a top priority. Another fundamental AZA criterion for membership is that education be affirmed as core to an institution's mission. All accredited public institutions are expected to develop a written education plan and to regularly evaluate program effectiveness.

The inclusion of animals (native, exotic and domestic) in educational presentations, when done correctly, is a powerful tool. CEC's **Program Animal Position Statement** describes the research underpinning the appropriate use of program animals as an important and powerful educational tool that provides a variety of benefits to zoo and aquarium educators seeking to convey cognitive and affective messages about conservation and wildlife.

Ongoing research, such as AZA's Multi-Institutional Research Project (MIRP) and research conducted by individual AZA institutions will help zoo educators to determine whether the use of program animals conveys intended and conflicting messages and to modify and improve programs accordingly.

When utilizing program animals our responsibility is to meet both our high standards of animal care and our educational goals. Additionally, as animal management professionals, we must critically address both the species' conservation needs and the welfare of the individual animal. Because "wild creatures differ endlessly," in their forms, needs, behavior, limitations and abilities (Conway, 1995), AZA, through its Animal Welfare Committee, has recently given the responsibility to develop taxon-specific animal welfare standards to the Taxon Advisory Groups (TAG) and Species Survival Plan® Program (SSP). Experts within each TAG or SSP, along with their education advisors, are charged with assessing all aspects of the taxons' biological and social needs and developing animal care standards that include specifications concerning their use as program animals.

However, even the most exacting standards cannot address the individual choices faced by each AZA institution. Therefore, each institution is required to develop a program animal policy that articulates and evaluates program benefits. The following recommendations are offered to assist each institution in formulating its own Institutional Program Animal Policy.

### The Policy Development Process

Within each institution, key stakeholders should be included in the development of that institution's policy, including, but not limited to representatives from:

- the Education Department
- the Animal Husbandry Department
- the Veterinary and Animal Health Department
- the Conservation & Science Department
- any animal show staff (if in a separate department)
- departments that frequently request special program animal situations (e.g., special events, development, marketing, zoo or aquarium society, administration)

Additionally, staff from all levels of the organization should be involved in this development (e.g., curators, keepers, education managers, interpreters, volunteer coordinators).

To develop a comprehensive Program Animal Policy, we recommend that the following components be included:

## I. Philosophy

In general, the position of the AZA is that the use of animals in up close and personal settings, including animal contact, can be extremely positive and powerful, as long as:

1. The use and setting is appropriate.
2. Animal and human welfare is considered at all times.
3. The animal is used in a respectful, safe manner and in a manner that does not misrepresent or degrade the animal.
4. A meaningful conservation message is an integral component. Read the AZA Board-approved Conservation Messages.
5. Suitable species and individual specimens are used.

Institutional program animal policies should include a philosophical statement addressing the above, and should relate the use of program animals to the institution's overall mission statement.

## II. Appropriate Settings

The Program Animal Policy should include a listing of all settings both on and off site, where program animal use is permitted. This will clearly vary among institutions. Each institution's policy should include a comprehensive list of settings specific to that institution. Some institutions may have separate policies for each setting; others may address the various settings within the same policy. Examples of settings include:

- I. On-site programming
  - A. Informal and non-registrants:
    1. On-grounds programming with animals being brought out (demonstrations, lectures, parties, special events, and media)
    2. Children's zoos and contact yards
    3. Behind-the-scenes open houses
    4. Shows
    5. Touch pools
  - B. Formal (registration involved) and controlled settings
    1. School group programs
    2. Summer Camps
    3. Overnights
    4. Birthday Parties
- II. Offsite and Outreach
  1. PR events (TV, radio)
  2. Fundraising events
  3. Field programs involving the public
  4. School visits
  5. Library visits
  6. Nursing Home visits (therapy)
  7. Hospital visits
  8. Senior Centers
  9. Civic Group events

In some cases, policies will differ from setting to setting (e.g., on-site and off-site use with media). These settings should be addressed separately, and should reflect specific animal health issues, assessment of stress in these situations, limitations, and restrictions.

### III. Compliance with Regulations

All AZA institutions housing mammals are regulated by the USDA's Animal Welfare Act. Other federal regulations, such as the Marine Mammal Protection Act, may apply. Additionally, many states, and some cities, have regulations that apply to animal contact situations. Similarly, all accredited institutions are bound by the AZA Code of Professional Ethics. It is expected that the Institution Program Animal Policy address compliance with appropriate regulations and AZA Accreditation Standards.

### IV. Collection Planning

All AZA accredited institutions should have a collection planning process in place. Program animals are part of an institution's overall collection and must be included in the overall collection planning process. The AZA Guide to Accreditation contains specific requirements for the institution collection plan. For more information about collection planning in general, please see the Collection Management pages in the Members Only section.

The following recommendations apply to program animals:

1. Listing of approved program animals (to be periodically amended as collection changes).  
Justification of each species should be based upon criteria such as:
  - Temperament and suitability for program use
  - Husbandry requirements
  - Husbandry expertise
  - Veterinary issues and concerns
  - Ease and means of acquisition / disposition
  - Educational value and intended conservation message
  - Conservation Status
  - Compliance with TAG and SSP guidelines and policies
2. General guidelines as to how each species (and, where necessary, for each individual) will be presented to the public, and in what settings
3. The collection planning section should reference the institution's acquisition and disposition policies.

### V. Conservation Education Message

As noted in the AZA Accreditation Standards, if animal demonstrations are part of an institution's programs, an educational and conservation message must be an integral component. The Program Animal Policy should address the specific messages related to the use of program animals, as well as the need to be cautious about hidden or conflicting messages (e.g., "petting" an animal while stating verbally that it makes a poor pet). This section may include or reference the AZA Conservation Messages.

Although education value and messages should be part of the general collection planning process, this aspect is so critical to the use of program animals that it deserves additional attention. In addition, it is highly recommended to encourage the use of biofacts in addition to or in place of the live animals. Whenever possible, evaluation of the effectiveness of presenting program animals should be built into education programs.



## VI. Human Health and Safety

The safety of our staff and the public is one of the greatest concerns in working with program animals. Although extremely valuable as educational and affective experiences, contact with animals poses certain risks to the handler and the public. Therefore, the human health and safety section of the policy should address:

1. Minimization of the possibility of disease transfer from non-human animals to humans, and vice-versa (e.g., handwashing stations, no touch policies, use of hand sanitizer)
2. Safety issues related to handlers' personal attire and behavior (e.g., discourage or prohibit use of long earrings, perfume and cologne, not eating or drinking around animals, smoking etc.)

AZA's Animal Contact Policy provides guidelines in this area; these guidelines were incorporated into accreditation standards in 1998.

## VII. Animal Health and Welfare

Animal health and welfare are the highest priority of AZA accredited institutions. As a result, the Institutional Program Animal Policy should make a strong statement on the importance of animal welfare. The policy should address:

1. General housing, husbandry, and animal health concerns (e.g. that the housing and husbandry for program animals meets or exceeds general standards and that the needs of the individual animal, such as enrichment and visual cover, are accommodated).
2. The empowerment of handlers to make decisions related to animal health and welfare; such as withdrawing animals from a situation if safety or health is in danger of being compromised.
3. Requirements for supervision of contact areas and touch tanks by trained staff and volunteers.
4. Frequent evaluation of human / animal interactions to assess safety, health, welfare, etc.
5. Ensure that the level of health care for the program animals is consistent with that of other animals in the collection.

## VIII. Taxon Specific Protocols

We encourage institutions to provide taxonomically specific protocols, either at the genus or species level, or the specimen, or individual, level. Some taxon-specific guidelines may affect the use of program animals. To develop these, institutions refer to the Conservation Programs Database.

Taxon-specific protocols should address:

1. How to remove the individual animal from and return it to its permanent enclosure.
2. How to crate and transport animals.
3. Signs of stress, stress factors and discomfort behaviors.
4. Situation specific handling protocols (e.g., whether or not animal is allowed to be touched by the public, and how to handle in such situations)
5. Guidelines for disinfecting surfaces, transport carriers, enclosures, etc.
6. Animal facts and conservation information.
7. Limitations and restrictions regarding ambient temperatures and or weather conditions.
8. Time limitations (including animal rotation and rest periods, as appropriate, duration of time each animal can participate, and restrictions on travel distances).
9. The numbers of trained personnel required to ensure the health and welfare of the animals, handlers and public.
10. Taxon-specific guidelines on animal health.

## **IX. Logistics: Managing the Program**

The Institutional Policy should address a number of logistical issues related to program animals, including:

1. Where and how the program animal collection will be housed, including any quarantine and separation for animals used off-site.
2. Procedures for requesting animals, including the approval process and decision making process.
3. Accurate documentation and availability of records, including procedures for documenting animal usage, animal behavior, and any other concerns that arise.

## **X. Staff Training**

Thorough training for all handling staff (keepers, educators, and volunteers, and docents) is clearly critical. Staff training is such a large issue that many institutions may have separate training protocols and procedures. Specific training protocols can be included in the Institutional Program Animal Policy or reference can be made that a separate training protocol exists.

It is recommended that the training section of the policy address:

1. Personnel authorized to handle and present animals.
2. Handling protocol during quarantine.
3. The process for training, qualifying and assessing handlers including who is authorized to train handlers.
4. The frequency of required re-training sessions for handlers.
5. Personnel authorized to train animals and training protocols.
6. The process for addressing substandard performance and noncompliance with established procedures.
7. Medical testing and vaccinations required for handlers (e.g., TB testing, tetanus shots, rabies vaccinations, routine fecal cultures, physical exams, etc.).
8. Training content (e.g., taxonomically specific protocols, natural history, relevant conservation education messages, presentation techniques, interpretive techniques, etc.).
9. Protocols to reduce disease transmission (e.g., zoonotic disease transmission, proper hygiene and hand washing requirements, as noted in AZA's Animal Contact Policy).
10. Procedures for reporting injuries to the animals, handling personnel or public.
11. Visitor management (e.g., ensuring visitors' interact appropriately with animals, do not eat or drink around the animal, etc.).

## **XI. Review of Institutional Policies**

All policies should be reviewed regularly. Accountability and ramifications of policy violations should be addressed as well (e.g., retraining, revocation of handling privileges, etc.). Institutional policies should address how frequently the Program Animal Policy will be reviewed and revised, and how accountability will be maintained.

## **XII. TAG and SSP Recommendations**

Following development of taxon-specific recommendations from each TAG and SSP, the institution policy should include a statement regarding compliance with these recommendations. If the institution chooses not to follow these specific recommendations, a brief statement providing rationale is recommended.

## **Policy on the Presentation of Animals**

Approved by the Board of Directors – July 2008

The Association of Zoos & Aquariums (AZA) is dedicated to excellence in animal care and welfare, conservation, education, research, and the presentation of animals in ways that inspire respect for wildlife and nature. AZA's position is that animals should always be presented in adherence to the following core principles:

1. Animal and human health, safety, and welfare are never compromised.
2. Education and a meaningful conservation message are integral components of the presentation.
3. The individual animals involved are consistently maintained in a manner that meets their social, physical, behavioral, and nutritional needs.

### **Apes in Media and Commercial Performances**

Apes, including chimpanzees, gorillas, bonobos, orangutans, and gibbons, are intelligent, sensitive, long-lived and highly social animals. As humans' closest living relatives, they are fascinating, and ape infants are magnetically appealing. These attributes have made apes popular as performers in commercial entertainment and advertising programs. But this popularity and attractiveness masks the often cruel and dangerous practices commonly required to make apes compliant in such appearances.

This White Paper presents a brief summary of the justification for:

- Eliminating the use of apes as performers in commercial entertainment.
- Establishing standards to ensure that public presentations and interpretive programs portray apes respectfully and accurately represent the biology and conservation status of apes.

#### Rationale

1. An ape infant normally remains with its mother for several years in a group environment, learning social skills essential for development of normal adult behaviors. But apes destined to be performers or photographic props are typically removed from their mother shortly after birth and, thus, are denied opportunities for normal social and psychological development. This has several commercial advantages to an owner. Infants removed in this manner will be appealing and remain submissive for handling by humans for several years. Mothers whose infants are removed will resume sexual cycling and produce another profitable infant quickly.

But apes raised by humans in the absence of other members of their species will not normally acquire the skills to be socially and sexually competent as juveniles and adults. They may never readjust to life in a normal social group, and thus they are usually relegated to social and sexual isolation, which often leads to abnormal behaviors such as self-mutilation. For these reasons, it typically is not feasible to involve these individuals in conservation-based breeding programs.

2. Although endearing as infants, apes generally become physically powerful and unpredictable as they near adulthood. Their continued use as performers or props is potentially very dangerous to their handlers and audiences. Thus, handlers of ape performers often must use food deprivation, physical abuse, continuous tranquilization, or even electric shock to maintain control. Additionally, the animals may be modified to reduce their ability to cause harm, for example by removing their teeth. It should be noted that the apparent "smile" of a performing chimpanzee is actually a well-documented expression of fear. Such physical and psychological effects are difficult to alleviate even if the ape is rescued and placed in a caring environment. More often however, when ape performers become too difficult to handle, they lose their commercial value and are sold to roadside menageries with inexperienced

handlers and often inhumane conditions.

3. Dressing apes in human clothing, or training them to engage in unnatural (usually human) behaviors, while entertaining to some, inaccurately portrays their biology and conservation status. Since conservation efforts rely on informed public opinion, these practices serve to undermine communications vital to achieving conservation. The use of apes in advertisements and other commercial performances can lead people to conclude falsely that apes make good pets.
4. Because apes and humans are genetically so similar, both are susceptible to many of the same communicable diseases. Close and unprotected contact between performing apes, their handlers, and audiences can threaten all with viral, bacterial, and parasite infection.

In summary, the use of apes in media and commercial performances should be eliminated.

### **AGREEMENT BETWEEN FDA AND AZA REGARDING USE OF ANIMAL DRUGS**

1. The drug administration programs at AZA accredited aquariums will be overseen by a licensed veterinarian and drugs administered by trained personnel.
2. Drugs will not be purchased for or diverted to the food fish aquaculture industry.
3. Approved drugs will be used wherever possible and extra label use of approved drugs will follow FDA Compliance Policy Guidelines.
4. Clinical records will reflect source and quantity of medication, medication used, dosage or concentration, duration and dates of treatment, and disease and animal treated.
5. Visitors to aquariums and aquatic zoo exhibits will not be exposed to drugs used to treat fish.
6. Occupational Safety and Health Administration (OSHA) guidelines will be followed to protect staff from exposure to drugs used to treat fish.
7. Disposal of drugs used to treat fish diseases will follow applicable federal and state environmental guidelines.
8. Fishes treated with non-FDA-approved drugs for food fish will not be released into the wild without appropriate depuration.
9. The AZA will monitor its member institutions regarding these matters through its rigorous accreditation process.

**Policy for Full Participation  
in the Species Survival Plan® Program  
Adopted by the AZA Board of Directors  
March 26, 2009**

Cooperative animal management and conservation are among the primary goals of the Association of Zoos & Aquariums (AZA). These goals are best exemplified by the Association's shared commitment to its cornerstone animal management and conservation program: the Species Survival Plan® (SSP). The AZA Board of Directors recognizes that: 1. Cooperative animal management is vital to the long-term survival of professionally managed zoological parks and aquariums and their valuable and often irreplaceable live animal collections; and 2. All AZA-accredited institutions and Certified Related Facilities should be fully committed to the animal management, conservation, and public education goals as well as the collaborative spirit of the SSP partnership. Therefore, in 2000, the Board adopted the first policy of Full Participation in the SSP program by all AZA member institutions.

An SSP Master Plan articulates long- and short-term goals for a population. It plans the "family tree" of each managed population to minimize the rate of loss of genetic diversity and maintain the long-term demographic stability of the population. Breeding and other population management recommendations are made for each animal with consideration of logistical feasibility, animal welfare, and other factors that can improve SSP outcomes. In addition to breeding recommendations, Master Plans also include a recommendation not to breed certain animals for sound husbandry reasons and the betterment of the population. The Board recognizes that, in the collaborative process of managing the SSPs, the responsibility of each SSP Management Group is to make sound Master Plan recommendations, and also recognizes that, at times, these may conflict with a member institution's plans.

The Board emphasizes the responsibility of all institutions to cooperate in SSP Master Planning. If differences occur between an SSP's recommendations and a participating institution, the SSP Coordinator and the IR have a joint responsibility to work collaboratively to resolve it. When an SSP recommendation is fundamental to the collaborative management of the *ex situ* population, then the SSP recommendation should take precedence. In this process, all institutions' clearly stated and reasonable needs will be considered. If an SSP recommendation is not fundamental to the collaborative management of the *ex situ* population, then the SSP Management Group may elect to change it before the Master Plan is finalized. Thus, when an SSP Master Plan is approved its animal management recommendations will accurately reflect the vital needs of both the SSP and the participating institutions.

The Policy for Full Participation in the SSP Program ensures that AZA Accredited Institutions and Certified Related Facilities have input into the SSP Master Planning process and that they fully comprehend, agree to, and follow the final SSP recommendations. The Board now further defines Full Participation in the SSP program, and the processes used to achieve Full Participation, as follows:

- The Institutional Liaison (IL) at AZA Accredited Institutions or Certified Related Facilities will ensure that an Institutional Representative (IR) is appointed for each SSP species the institution/facility owns or holds, or for which the institution selects to support as defined by the SSP Management Group.
- Each IR must serve as the primary point of contact for all matters relating to their assigned SSP and will ensure that their institution responds to SSP needs for information during Master Planning.
- Periodically and regularly, the SSP Coordinator will ask each participating institution's IR how their institution will participate in the SSP: breeding, non-breeding (where an institution cannot breed due to space, or other factors), or support.
- Prior to the Master Plan development, at the request of the SSP Coordinator, each IR will provide all relevant data regarding individual SSP animals to the corresponding SSP Coordinator and Studbook Keeper in a timely manner. Further, IRs *must* ensure that all proposed acquisitions or dispositions of the SSP species are included in the SSP Master Plan or, if the Master Plan is already published, are

approved in advance by the SSP Coordinator or, preferably the SSP Management Group. SSP Coordinators and IRs must work collaboratively to develop an SSP Master Plan that strives to meet the needs of the SSP program and the needs of participating institutions.

- A draft of the SSP Master Plan, which must include a written record of all animal management recommendations, will be published on the AZA web site for a 30-day comment period and the SSP Coordinator will notify all IRs as soon as the Plan is available for comment. IRs at all participating institutions must inform the SSP Coordinator during the comment period that they will adhere to the Master Plan recommendations, or why they cannot, which will initiate the resolution discussions described below. If all participants agree with the recommendations, the final Master Plan will be published and implemented.
- Each IR must ensure that their institution's Director and IL are aware of the Master Plan and its recommendations and must initiate a collaborative discussion with the SSP Coordinator to resolve differences regarding Master Plan recommendations during the comment period. All involved should maintain accurate records of all related communications and discussions.
- If a resolution with no change to the SSP recommendations is found, then the final Master Plan will be published and implemented.
- If a resolution that causes changes in the SSP recommendations is reached, the edited Master Plan will be re-posted for a final 30-day comment period. IRs at institutions affected by the edited recommendation(s) must respond to the SSP Coordinator during the final comment period regarding their agreement to adhere to the recommendations; institutions not affected by the changes will not need to respond again. At this stage, the finalized Master Plan will be published and all institutions agreeing to adhere to the Master Plan's recommendations will commence implementing the Plan.
- If no resolution is found through direct discussion between the SSP Coordinator and the IR(s), they must work cooperatively with the IL, institutional Director, and corresponding TAG Chair to find one. If necessary, the discussion can extend for an additional 30 days, during which time the institution disputing a recommendation must not engage in any breeding or acquisitions and / or dispositions of species that run counter to the SSP recommendations.

If differences are not resolved by the steps outlined above, then the SSP Coordinator and / or any other involved parties must request that AZA's Wildlife Conservation Management Committee (WCMC) mediate the situation as defined in the AZA Animal Management Reconciliation Policy and, again, the institution disputing the recommendation must not engage in any breeding, acquisitions and / or dispositions that run counter to the SSP recommendations until the mediation and, if necessary, the reconciliation process is complete. Emergencies or other extraordinary circumstances will be considered for the health and welfare of the animals. Institutions not affected by the disagreement will continue carrying out their recommendations. (See: <http://www.aza.org/AboutAZA/BrdAppPolicies/index.html> ).

**Species Survival Plan® –  
Animal Management Reconciliation Policy  
Adopted by the AZA Board of Directors  
March 26, 2009**

The success of cooperative breeding programs depends on all institutions supporting Species Survival Plan® (SSP) recommendations. Therefore, the Board emphasizes the crucial nature of the cooperative process in the development of SSP Master Plans to ensure that animal management recommendations accurately reflect the vital needs of both the SSPs and participating Accredited Institutions and Certified Related Facilities.

If differences regarding SSP recommendations occur between the SSP Management Group and a member Institution, AZA's Full Participation Policy clearly articulates the process that both parties must utilize to resolve them prior to engaging in the Animal Management Reconciliation process. However, if such differences cannot be resolved, then the parties involved must request that AZA's Wildlife Conservation Management Committee (WCMC) mediate the situation.

- WCMC will (1) determine if all efforts to resolve differences have been exhausted and, (2) determine if the recommendations in question are fundamental to the cooperative management of the *ex situ* population. If both situations are true, then WCMC will notify all parties and appoint a Mediation Task Force which includes the WCMC Chair / designee, one member of WCMC selected by each party to represent them, the SSP Coordinator, the institution's Director and two other institutional representatives, and AZA's VP of Animal Conservation.
- The Mediation Task Force will conduct a confidential review of the situation in less than 30 days. Within 2 weeks of the completed review, the WCMC Chair / designee will draft a mediation report describing a consensus decision, which will be reviewed by the participating parties. Comments on the draft report must be returned within a week of distribution. The WCMC Chair / designee will consider all comments and produce a final mediation report. Assuming a resolution is reached, the report will be submitted to all participants involved in the process and the matter will be closed.
- If the mediation process yields no resolution, WCMC must notify all parties and initiate the reconciliation process, during which the institution in question must not engage in any breeding, acquisitions and / or dispositions that run counter to the SSP until a resolution is found. The Reconciliation Committee, over which the WCMC Chair / designee presides, will include the institution's Director or designee, the WCMC Board Liaison, and AZA's Sr. VP of Conservation, VP of Animal Conservation, and Executive Director. The Reconciliation Committee will consider the Mediation Task Force report and determine if additional information is required.
- In its call for greater accountability, the AZA Board holds that action by the Accreditation Commission and / or the Ethics Board can be taken against a member institution that: (1) demonstrates a pattern of a failure to participate and / or (2) demonstrates an action contrary to an SSP program recommendation which threatens the short- or long-term management of the *ex situ* population. Therefore, the Reconciliation Committee will specifically consider if either of these instances is found to be valid.
- If it is determined that the member institution's action is not detrimental to the cooperative management of the *ex situ* population, then the Master Plan will be changed accordingly and the results of these findings will be incorporated into a reconciliation final report submitted to the AZA Conservation Office.
- If it is determined that the member institution's action is detrimental to the cooperative management of the *ex situ* population, and / or is part of a pattern of a failure to participate, then the Master Plan will stand as is and the Reconciliation Committee will notify the institution that they must comply with



it. If the institution refuses this directive, the Reconciliation Committee will note this in the reconciliation final report filed with AZA's Conservation Office and provide the report to the Accreditation Commission and the Ethics Board for consideration.

## **AZA ACQUISITION / DISPOSITION POLICY**

Adopted by the AZA Board of Directors

July 29, 2006

### **I. INTRODUCTION**

The Association of Zoos and Aquariums (AZA) was established, among other reasons, to foster continued improvement in the zoological park and aquarium profession. One of its most important roles is to provide a forum for debate and consensus building among its members, the intent of which is to attain high ethical standards, especially those related to animal care and professional conduct. The stringent requirements for AZA accreditation and high standards of professional conduct are unmatched by similar organizations and also far surpass the United States Department of Agriculture's Animal and Plant Health Inspection Service's requirements for licensed animal exhibitors. AZA member facilities must abide by a Code of Professional Ethics - a set of standards that guide all aspects of animal management and welfare. As a matter of priority, AZA institutions should acquire animals from other AZA institutions and dispose of animals to other AZA institutions.

AZA accredited zoological parks and aquariums cannot fulfill their important missions of conservation, education and science without living animals. Responsible management of living animal populations necessitates that some individuals be acquired and that others be removed from the collection at certain times. Acquisition of animals can occur through propagation, trade, donation, loan, purchase, capture, or rescue. Animals used as animal feed are not accessioned into the collection. Disposition occurs when an animal leaves the collection for any reason. Reasons for disposition vary widely, but include cooperative population management (genetic or demographic management), reintroduction, behavioral incompatibility, sexual maturation, animal health concerns, loan or transfer, or death. The AZA Acquisition/Disposition Policy (A/D) was created to help (1) guide and support member institutions in their animal acquisition and disposition decisions, and (2) ensure that all additions and removals are compatible with the Association's stated commitment to "save and protect the wonders of the living natural world." More specifically, the AZA A/D Policy is intended to:

1. ensure that the welfare of individual animals and conservation of populations, species and ecosystems are carefully considered during acquisition and disposition activities;
2. maintain a proper standard of conduct for AZA members during acquisition and disposition activities; and
3. ensure that animals from AZA member institutions are not transferred to individuals or organizations that lack the appropriate expertise or facilities to care for them.
4. support the goal of AZA's cooperatively managed populations and associated programs [Species Survival Plans (SSPs), Population Management Plans (PMPs), and Taxon Advisory Groups (TAGs)].

The AZA Acquisition/Disposition Policy will serve as the default policy for AZA member institutions. Institutions may develop their own A/D Policy in order to address specific local concerns. Any institutional policy must incorporate and not conflict with the AZA acquisition and disposition standards.

Violations of the AZA Acquisition/Disposition Policy will be dealt with in accordance with the AZA Code of Professional Ethics. Violations can result in an institution's or individual's expulsion from membership in the AZA.

## II. GROUP OR COLONY BASED IDENTIFICATION

For some colonial, group-living, or prolific species, such as certain insects, aquatic invertebrates, schooling fish, rodents, and bats, it is often impossible or highly impractical to identify individual specimens. These species are therefore maintained, acquisitioned, and disposed of as a group or colony.

Therefore, when this A/D Policy refers to animals or specimens, it is in reference to both individuals and groups/colonies.

## III. GERMPLASM

Acquisition and disposition of germplasm should follow the same guidelines outlined in this document if its intended use is to create live animal(s). Ownership of germplasm and any resulting animals should be clearly defined. Institutions acquiring or dispositioning germplasm or any animal parts or samples should consider not only its current use, but also future possible uses as new technologies become available.

## IV. ACQUISITION REQUIREMENTS

### A. General Acquisitions

Animals are to be acquisitioned into an AZA member institution's collection if the following conditions are met:

1. Acquisitions must meet the requirements of all applicable local, state, federal and international regulations and laws.
2. The Director or Chief Executive Officer of the institution is charged with the final authority and responsibility for the monitoring and implementation of all acquisitions.
3. Acquisitions must be consistent with the mission of the institution, as reflected in its Institutional Collection Plan, by addressing its exhibition/education, conservation, and/or scientific goals.
4. Animals that are acquired for the collection, permanently or temporarily, must be listed on institutional records. All records should follow the *Standards for Data Entry and Maintenance of North American Zoo and Aquarium Animal Records Databases*®. ([http://members.aza.org/Departments/ConScienceMO/DMR\\_MO/Documents/StandardsDataEntry.pdf](http://members.aza.org/Departments/ConScienceMO/DMR_MO/Documents/StandardsDataEntry.pdf))
5. Animals may be acquired temporarily for reasons such as, holding for governmental agencies, rescue and/or rehabilitation, or special exhibits. Animals should only be accepted if they will not jeopardize the health, care or maintenance of the animals in the permanent collection or the animal being acquired.
6. The institution must have the necessary resources to support and provide for the professional care and management of a species, so that the physical and social needs of both specimen and species are met.
7. Attempts by members to circumvent AZA conservation programs in the acquisition of SSP animals are detrimental to the Association and its conservation programs. Such action may be detrimental to the species involved and is a violation of the Association's Code of Professional Ethics. All AZA members must work through the SSP program in efforts to acquire SSP species and adhere to the AZA Full Participation policy.
8. Animals are only to be acquired from sources that are known to operate legally and conduct their business in a manner that reflects and/or supports the spirit and intent of the AZA Code of

Professional Ethics as well as this policy. Any convictions of state, federal, or international wildlife laws should be reviewed, as well as any previous dealings with other AZA accredited institutions.

9. When acquiring specimens managed by a PMP, institutions should consult with the PMP manager.
10. Institutions should consult AZA Wildlife Conservation and Management Committee (WCMC)-approved Regional Collection Plans (RCPs) when making acquisition decisions.

## **B. Acquisitions From the Wild**

The maintenance of wild animal populations for education and wildlife conservation purposes is a unique responsibility of AZA member zoos and aquariums. To accomplish these goals, it may be necessary to acquire wild-caught specimens. Before acquiring animals from the wild, institutions are encouraged to examine sources including other AZA institutions or regional zoological associations. When acquiring animals from the wild, careful consideration must be taken to evaluate the long-term impacts on the wild population. Any capture of free-ranging animals should be done in accordance with all local, state, federal, and international wildlife laws and regulations and not be detrimental to the long-term viability of the species or the wild or captive population(s). In crisis situations, when the survival of a population is at risk, rescue decisions are to be made on a case-by-case basis.

## **V. DISPOSITION REQUIREMENTS**

### **A. Living Animals**

Successful conservation and animal management efforts rely on the cooperation of many entities, both within and outside of AZA. While preference is given to placing animals within AZA member institutions, it is important to foster a cooperative culture among those who share the primary mission of AZA accredited facilities. The AZA draws a strong distinction between the mission, stated or otherwise, of non-AZA member organizations and the mission of professionally managed zoological parks and aquariums accredited by the AZA. An accredited AZA member balances public display, recreation, and entertainment with demonstrated efforts in education, conservation, and science. While some non-AZA member organizations may meet minimum daily standards of animal care for wildlife, the AZA recognizes that this, by itself, is insufficient to warrant either AZA membership or participation in AZA's cooperative animal management programs. When an animal is sent to a non-member of AZA, it is imperative that the member be confident that the animal will be cared for properly.

Animals may only be disposed of from an AZA member institution's collection if the following conditions are met:

1. Dispositions must meet the requirements of all applicable local, state, federal and international regulations and laws.
2. The Director or Chief Executive Officer of the institution is charged with the final authority and responsibility for the monitoring and implementation of all dispositions.
3. Any disposition must abide by the Mandatory Standards and General Advisories of the AZA Code of Professional Ethics (see Appendix I). Specifically, "a member shall make every effort to assure that all animals in his/her collection and under his/her care are disposed of in a manner which meets the current disposition standards of the Association and do not find their way into the hands of those not qualified to care for them properly."
4. Non-domesticated animals shall not be disposed of at animal auctions. Additionally, animals shall not be disposed of to any organization or individual that may use or sell the animal at an animal auction. In transactions with AZA non-members, the recipient must ensure in writing that neither the animal nor its offspring will be disposed of at a wild animal auction or to an individual or organization that allows the hunting of the animal.

5. Animals shall not be disposed of to organizations or individuals that allow the hunting of these animals or their offspring. This does not apply to individuals or organizations which allow the hunting of only free-ranging game species (indigenous to North America) and established long-introduced species such as, but not limited to, white-tailed deer, quail, rabbit, waterfowl, boar, ring-necked pheasant, chukar, partridge, and trout. AZA distinguishes hunting/fishing for sport from culling for sustainable population management and wildlife conservation purposes.
6. Attempts by members to circumvent AZA conservation programs in the disposition of SSP animals are detrimental to the Association and its conservation programs. Such action may be detrimental to the species involved and is a violation of the Association's Code of Professional Ethics. All AZA members must work through the SSP program in efforts to deacquisition SSP species and adhere to the AZA Full Participation policy.
7. Domesticated animals are to be disposed of in a manner consistent with acceptable farm practices and subject to all relevant laws and regulations.
8. Live specimens may be released within native ranges, subject to all relevant laws and regulations. Releases may be a part of a recovery program and any release must be compatible with the AZA Guidelines for Reintroduction of Animals Born or Held in Captivity, dated June 3, 1992 (<http://www.aza.org/AboutAZA/reintroduction/>).
9. Detailed disposition records of all living or dead specimens must be maintained. Where applicable, proper animal identification techniques should be utilized.
10. It is the obligation of every loaning institution to monitor, at least annually, the conditions of any loaned specimens and the ability of the recipient to provide proper care. If the conditions and care of animals are in violation of the loan agreement, it is the obligation of the loaning institution to recall the animal. Furthermore, an institution's loaning policy must not be in conflict with this A/D Policy.
11. If live specimens are euthanized, it must be done in accordance with the established policy of the institution and the Report of the American Veterinary Medical Association Panel on Euthanasia (Journal of the American Veterinary Medical Association 218 (5): 669-696, 2001). [Renamed "The AVMA Guidelines on Euthanasia", current edition June 2007].
12. In dispositions to non-AZA members, the non-AZA member's mission (stated or implied) must not be in conflict with the mission of AZA, or with this A/D Policy.
13. In dispositions to non-AZA member facilities that are open to the public, the non-AZA member must balance public display, recreation, and entertainment with demonstrated efforts in conservation, education, and science.
14. In dispositions to non-AZA members, the AZA members must be convinced that the recipient has the expertise, records management practices, financial stability, facilities, and resources required to properly care for and maintain the animals and their offspring. It is recommended that this documentation be kept in the permanent record of the animals at the AZA member institution.
15. If living animals are sent to a non-AZA member research institution, the institution must be registered under the Animal Welfare Act by the U.S. Department of Agriculture Animal and Plant Health Inspection Service. For international transactions, the receiving facility should be registered by that country's equivalent body with enforcement over animal welfare.
16. No animal disposition should occur if it would create a health or safety risk (to the animal or humans) or have a negative impact on the conservation of the species.
17. Inherently dangerous wild animals or invasive species should not be dispositioned to the pet trade or those unqualified to care for them.

18. Under no circumstances should any primates be dispositioned to a private individual or to the pet trade.
19. Fish and aquatic invertebrate species that meet ANY of the following are inappropriate to be disposed of to private individuals or the pet trade:
  - species that grow too large to be housed in a 72-inch long, 180 gallon aquarium (the largest tank commonly sold in retail stores)
  - species that require extraordinary life support equipment to maintain an appropriate captive environment (e.g., cold water fish and invertebrates)
  - species deemed invasive (e.g., snakeheads)
  - species capable of inflicting a serious bite or venomous sting (e.g., piranha, lion fish, blue-ringed octopus)
  - species of wildlife conservation concern
20. When dispositioning specimens managed by a PMP, institutions should consult with the PMP manager.
21. Institutions should consult WCMC-approved RCPs when making disposition decisions.

### **B. Dead Specimens**

Dead specimens (including animal parts and samples) are only to be disposed of from an AZA member institution's collection if the following conditions are met:

1. Dispositions of dead specimens must meet the requirements of all applicable local, state, federal and international regulations and laws.
2. Maximum utilization is to be made of the remains, which could include use in educational programs or exhibits.
3. Consideration is given to scientific projects that provide data for species management and/or conservation.
4. Records (including ownership information) are to be kept on all dispositions, including animal body parts, when possible.
5. SSP and TAG necropsy protocols are to be accommodated insofar as possible.

## **VI. TRANSACTION FORMS**

AZA member institutions will develop transaction forms to record animal acquisitions and dispositions. These forms will require the potential recipient or provider to adhere to the AZA Code of Professional Ethics, the AZA Acquisition/Disposition Policy, and all relevant AZA and member policies, procedures and guidelines. In addition, transaction forms must insist on compliance with the applicable laws and regulations of local, state, federal and international authorities.

## **CODE OF PROFESSIONAL ETHICS**

### **PREAMBLE**

The continued existence of zoological parks and aquariums depends upon recognition that our profession is based on the respect for the dignity of the animals in our care, the people we serve, and most importantly, for each other. Members of the American Association of Zoological Parks and Aquariums (known as American Zoo and Aquarium Association or "AZA") have an important role in the preservation of our heritage. To fulfill this role, we must understand the relationships we share with the public, the animals under our care, and with each other. A consequent obligation of membership is to maintain high standards of ethical conduct. Members must have the courage and foresight to live up to their responsibilities within principles of professionalism.

A code of ethics provides standards by which we can judge our professional conduct. We must find in our consciences the point against which to test our actions. It is our desire to maintain the respect and confidence of fellow members and the public that ought to provide us with incentive for the highest degree of ethical conduct. The possible loss of that respect and confidence numbers among the severest sanctions possible.

So long as our profession is guided by these principles, ours will continue to be a respected profession.

### **CODE OF PROFESSIONAL ETHICS**

The following Code of Professional Ethics of the American Zoo and Aquarium Association (AZA) shall form the basis for all disciplinary actions of the Association.

Deviation by a member from the AZA Code of Professional Ethics or from any of the rules officially adopted by the Board of Directors supplemental thereto, or any action by a member that is detrimental to the best interest of the zoo and aquarium profession and the AZA, shall be considered unethical conduct. The member shall be subject to investigation by the AZA Ethics Board and, if warranted, to disciplinary action by the Ethics Board and/or the AZA Board of Directors. The Code is intended as an inspirational guide for members and as a basis for disciplinary action.

This Code cannot apply to nonmembers, except as they have agreed to follow the Code in a signed agreement to participate in an AZA program. This Code defines the type of ethical conduct the public has a right to expect, not only of staff members of an institution but also of their nonprofessional employees and associates in all matters pertaining to professional zoological park and aquarium employment. The director and/or governing authority of a member institution should ultimately be responsible for the conduct of their employees and others affiliated with the member institution.

The Obligations of Professional Ethics set forth are aspirational in character and represent the objectives towards which every member should strive.

The Code's Mandatory Standards, unlike the Obligations of Professional Ethics, are mandatory in character and, if violated, may result in disciplinary action. The Mandatory Standards, to be uniformly applied to all members, establish a level of conduct below which no member may fall without being subject to disciplinary action. The Code makes no attempt to prescribe either disciplinary procedures or penalties for violation of Mandatory Standards. The severity of judgment against a member found to be in violation of a Mandatory Standard shall be determined by the character of the offense and the attendant circumstances. The Ethics Board, in applying the Mandatory Standards, may find interpretive guidance in the basic principles embodied in the standards and objectives reflected in the Obligations of Professional Ethics.

The Board of Directors and Ethics Board shall be responsible for interpreting the Code of Professional Ethics, subject to all provisions of the Charter and Bylaws. The Ethics Board shall investigate allegations, render decisions, and prescribe subsequent actions and/or penalties. An appeal may be made to the AZA Executive Committee within thirty (30) days of the date of mailing the Ethics Board decision to the complainant and defendant. Appeals may be granted if the Executive Committee concludes that the complainant or defendant appealing the Ethics Board decision has demonstrated that (1) there are new facts, not known at the time of the Ethics Board investigation, which the Executive Committee believes may have changed the outcome; or (2) the Ethics Board did not follow relevant AZA procedures; or (3) the penalty recommended by the Ethics Board was excessive under the circumstances. An appeal shall be granted upon a majority vote of the AZA Executive Committee. If the request for an appeal is granted, the Board of Directors shall hear the appeal at its next regularly scheduled meeting. The appellate decision of the Board of Directors shall be final and cannot be appealed.

## **I. OBLIGATIONS OF PROFESSIONAL ETHICS**

In order to promote high standards of conduct in our profession, the AZA has formulated the following basic principles for the guidance of its members:

AS A MEMBER OF THE AZA, I PLEDGE TO:

- A. Realize that I have moral responsibilities not only to my professional associates, my fellow employees, and the public, but also to the animals under my care.
- B. Display the highest integrity, the best judgment or ethics possible, and use my professional skills to the best interests of all.
- C. Deal fairly with members in the dissemination of professional information and advice.
- D. Use only legal and ethical means when seeking to influence governmental legislation or regulations.
- E. Promote the interests of wildlife conservation, biodiversity, and animal welfare to the public and to colleagues.
- F. Maintain high standards of personal, professional, and business conduct and behavior.
- G. Promote the interests of AZA and do my full share of work in support of the concepts and ideals of AZA.
- H. Cooperate with qualified zoos/aquariums and other qualified persons/organizations in breeding programs of endangered and other species.
- I. Aid the professional development of those who enter the zoological park and aquarium profession by assisting them to understand the functions, duties, and responsibilities of the profession.
- J. Seek opportunities to be of constructive service in civic affairs and, to the best of my ability, advance the understanding of all nature to the community in which I live.
- K. Encourage publication of significant achievements in breeding husbandry, medical technology, architecture, etc., in the appropriate publications generally familiar to members.
- L. Endeavor at all times to improve zoos and aquariums.

## **II. MANDATORY STANDARDS**

1. MAINTAINING INTEGRITY AND COMPETENCE OF THE ZOOLOGICAL PARK AND AQUARIUM PROFESSION
  - a. A member shall make no materially false statement or deliberately fail to disclose a material fact in connection with an application for membership or accreditation in AZA.
  - b. A member shall not endorse the application for membership in AZA of a person known by that member to be unqualified in respect to character, education, length of service, or some other relevant factor.
2. MISCONDUCT
  - a. A member shall not violate a Mandatory Standard.



- b. A member shall not solicit the aid of another individual to circumvent, or assist another to violate, a Mandatory Standard.
  - c. A member shall not knowingly engage in activities contrary to local, state, federal, or international laws as such laws relate to our profession; and a member will, to the best of his or her ability, cooperate with governmental agencies regulating animal welfare and animal transactions.
  - d. A member shall not engage in conduct that adversely affects, or is prejudicial to, the concepts and ideals of the AZA.
  - e. A member shall make every effort to assure that all animals in his/her collection and under his/her care are disposed of in a manner which meets the current disposition standards of the Association and do not find their way into the hands of those not qualified to care for them properly.
3. DISCLOSURE OF INFORMATION
- a. A member shall not knowingly misinform others regarding animal records or specimen disposition, professional information, and advice.
  - b. A member shall not alter animal records or alter the facts concerning age, condition, or other material information about any animal in order to affect the sale, trade, loan, or other transaction with respect to such animal.
  - c. A member shall immediately bring to the attention of the Ethics Board of the AZA any information concerning a clear violation of a Mandatory Standard.
  - d. A member shall issue no statement to the public which he/she knows (or should know) to be false or misleading.

## GENERAL ADVISORIES

The policies outlined below have been previously adopted by the AZA Board of Directors and are considered to expand the interpretation of the AZA Code of Professional Ethics that was developed to guide ethical conduct of all members. Amendments can be proposed by the AZA Board of Directors, the Ethics Board, and/or AZA members. Any proposed changes shall be reviewed by the Ethics Board and, as appropriate, by legal counsel. Proposed changes shall be submitted to the AZA Board of Directors for action.

### Animal Auctions (1981)

AZA members offering wildlife for sale at auctions attended by the general public are in violation of the AZA Code of Professional Ethics, specifically Mandatory Standards, 2-e, which states, "As a member of AZA, I pledge to...make every effort to assure that all animals...do not find their way into the hands of those not qualified to care for them properly."

### Use of Animal Exchange (1984)

Individuals may utilize Animal Exchange to purchase specimens if the following criteria are followed: the individual should, during the initial contact, identify his or her intentions and make the seller aware if the specimen(s) will go to the purchaser's private collection and not the zoo in question (adopted by the Ethics Board at the direction of the AZA Board).

### Notification of Ethics Code Violations (1986-revised 1993)

Copies of all final actions (the denial of an appeal to the Executive Committee or notification to the complainant and defendant of the appellate decision) regarding violations of the Code of Professional Ethics shall be sent to the Director, Chief Executive Officer, or Governing Authority of the institution of the defendant(s) involved. Such final actions shall be published in Communiqué, including a brief and factual statement of the action, including the name(s) of the defendant(s) involved in the violation and a listing of the sections of the Code which were violated to provide guidance for AZA members.

### Procurement of SSP Animals (1986-modified 1990-revised 1993)

Attempts by members to circumvent AZA conservation programs in the procurement and/or disposition of specimens of SSP animals are detrimental to the Association and its conservation programs. Such action may be detrimental to the species involved and could be construed as a violation of the Association's Code of Professional Ethics. All Association members should work through SSP species coordinators and appropriate propagation groups in efforts to procure or dispose of specimens of SSP species.

### **ETHICS BOARD**

The Ethics Board, elected by the membership, has separate duties from the AZA Board of Directors. The Ethics Board shall consist of nine (9) members. The Ethics Board proposed guidelines on the function of the Ethics Board for consideration during the San Diego Annual Conference in 1977. The AZA Board of Directors unanimously adopted these guidelines and revised them in 1993:

All Ethics Board matters shall be handled in accordance with the objectives and standards of the Association's Code of Professional Ethics.

Matters called to the attention of the Ethics Board must be in writing and addressed to the Chairman or any member of the Ethics Board. The ethics charge must be signed by the complainant and must contain a full statement of the matter to be reviewed by the Ethics Board.

An individual filing an ethics complaint shall be advised that full disclosure of the complaint shall be made available to all parties concerned. At this time, the complainant has the right to withdraw the complaint; and thus, the matter will be closed.

The Ethics Board, the complainant, and the defendant shall at all times during the investigation maintain strict confidentiality regarding the case.

The initial responsibility of the Ethics Board is to determine the validity of the charge(s). If the charge(s) appears to be valid, the Ethics Board shall initiate a full investigation. Once a full investigation is initiated, the Ethics Board must determine if an Ethics Code violation has occurred and what action and/or penalty is necessary. In making its determination, the Ethics Board shall consult, where necessary or appropriate, with AZA legal counsel. The Ethics Board has the responsibility and authority to issue a judgment and determine disciplinary actions. The AZA Board of Directors serves as an appellate board.

The AZA Board of Directors may also direct the Ethics Board to perform additional duties as needed.

The following procedures are hereby established:

The Chairman of the Ethics Board will distribute copies of all duly received ethics complaints to members of the Ethics Board, the AZA President, Executive Director, Deputy Director, and the AZA Board Liaison to the Ethics Board. All correspondence pertaining to the case shall be marked "Confidential." The Chairman shall request each Ethics Board member to render an opinion as to the validity of the complaint and make a recommendation on how to proceed and action to be taken.

The Chairman shall review all recommendations, suggest an Ethics Board action and, if necessary, arrange an appearance before the Ethics Board and/or a site visitation.

The Ethics Board may dismiss any charge for which there is insufficient evidence to pursue the investigation or for which there is no apparent violation of the Ethics Code. The complainant, defendant, and the Board of Directors shall be notified by the Ethics Board of the decision, for which there is no appeal.

The Ethics Board may determine that there is no clear violation or proof of a violation but that there is concern about the conduct of a member. The Ethics Board may issue a letter of concern. If the Ethics Board determines that a violation of the Code has occurred, the following options shall be considered: (A) Letter of Reprimand from the Ethics Board. (B) Letter of Reprimand from the Ethics

Board and the AZA Board of Directors. (C) Censorship and suspension of certain membership privileges (up to 2 years), to be determined on a case-by-case basis. (D) Expulsion from AZA membership for a minimum of two years. The Ethics Board may function as an investigative body as it determines whether or not a violation has occurred. The Ethics Board shall make its determination based upon the greater weight of the evidence presented to it. Ethics matters often do not involve legal matters but are founded on moral values and industry standards and practices. Where necessary or appropriate, the Ethics Board shall consult with AZA legal counsel.

The Ethics Board shall deliberate, during a meeting or conference call, on the final determination and action to be taken. Actions by the Ethics Board shall require a two-thirds (2/3) vote of its members. When a two-thirds (2/3) majority vote of guilty is not received the issue shall be dropped.

The Chairman of the Ethics Board shall submit a report to the President, Executive Director, Deputy Director, AZA Board Liaison Representative, and legal counsel, if necessary, with the Ethics Board's findings and course of disciplinary action to be taken prior to advising the complainant and defendant.

The Chairman of the Ethics Board shall advise the complainant and the defendant of the findings and action taken by the Ethics Board.

An appeal may be made to the AZA Executive Committee within thirty (30) days of the date of mailing the Ethics Board decision to the complainant and defendant. Appeals may be granted if the Executive Committee concludes that the complainant or defendant appealing the Ethics Board decision has demonstrated that (1) there are new facts, not known at the time of the Ethics Board investigation, which the Executive Committee believes may have changed the outcome; or (2) the Ethics Board did not follow relevant AZA procedures; or (3) the penalty recommended by the Ethics Board was excessive under the circumstances. Appeals shall be granted upon a majority vote of the AZA Executive Committee. The AZA Board of Directors shall hear the appeal at its next regularly scheduled meeting. The appellate decision of the Board of Directors shall be final and cannot be appealed.

At least one member of the Ethics Board shall be present during the appeal.

The Ethics Board shall notify the complainant and the defendant of the final action of the AZA Board of Directors once the appellate decision has been rendered.