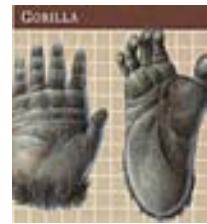


# Ape Taxon Advisory Group Regional Collection Plan

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Ape Taxon Advisory Group (TAG)  
Association of Zoos and Aquariums (AZA)

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# **REGIONAL COLLECTION PLAN FOR APES IN NORTH AMERICA**

## **I. BACKGROUND INFORMATION**

### **A. MISSION STATEMENT and GOALS**

#### **1. The mission statement of the Ape TAG is:**

The mission of the AZA Ape Taxon Advisory Group (TAG) is to coordinate and facilitate the captive management of gibbons/siamangs and great apes in support of education, *in situ* conservation, and research.

#### **2. Summary of Goals of the Ape Taxon Advisory Group (see III. Additional Information and Appendix I for more detail)**

The Ape TAG was formed in 1993 as the Great Ape TAG (the Gibbon SSP was added to the TAG in 1997). The summary of goals presented below is gleaned from the **AZA Ape Taxon Advisory Group Strategic Collection Plan**. The full text of the strategic plan can be found in Section III: Additional Information.

##### **i. Genetic and Demographic Management**

Given that the reintroduction of captive-bred apes to the wild is not expected to be a priority conservation strategy in the next 100 years, the Ape TAG will:

- maintain genetically and demographically healthy, well-managed captive populations of apes for public education and scientific study and to generate support of *in situ* conservation

##### **ii. Education**

Maximize the educational potential of captive ape populations by:

- assisting with key messages and recommending that they be presented at exhibiting institutions with a specific attempt to create cross-specific products;
- where appropriate, working with sanctuaries to develop educational messages and products that meet the needs of the sanctuary and government partners;
- developing materials to promote conservation-related behavior among zoo visitors and other audiences.

##### **iii. Research and Conservation**

Maximize the conservation and research potential of captive ape populations by:

- maximizing integration of *in situ* research and conservation efforts into the activities of the SSPs and the Ape TAG and foster communication and support for those efforts by the SSPs and Ape TAG;
- developing list of priority projects for *in situ* and *ex situ* research and conservation that will be eligible for institutional and CEF support;
- developing a collective fund raising strategy for ape conservation

##### **iv. Quality of Life**

Maintain the health and promote the well being of captive apes in SSP populations.

Each SSP will:

- establish standards for housing, managing and disposition of individuals of its respective taxon of ape;
- establish standards for presenting its respective ape taxon, specifically ensuring that husbandry, exhibition and interpretive programs: 1) accurately portray the biology and conservation status of the species, 2) do not require apes to behave in ways that detract from their dignity or inherent value, 3) foster natural social groupings, minimize hand rearing and promote the development of species-typical behaviors; and 4) do not detract from the conservation of the species or welfare of the individual,
- strongly encourage institutions to plan, design and construct facilities that have the flexibility to accommodate adolescents/adults of both sexes in equal numbers while adhering to housing and management standards for each ape taxon.

#### **v. Fund Raising**

Recognizing a unique responsibility and opportunity for fund raising because of the broad appeal and visibility of apes, the Ape TAG can:

- work with the field community to develop priority lists of *in situ* and *ex situ* projects, and then attract funding, both at the individual institution and collective AZA level, for ape conservation and research in general.

#### **vi. Interactions with non-North American Zoos**

In support of global management of captive ape populations, the Ape TAG will review all proposals to send apes to zoos outside of North America:

- to assess the degree to which such transactions could promote genetic and demographic health of the SSP populations;
- to ensure that recipient zoos, regardless of geographic location, meet all standards for housing, management and presentation that pertain to SSP institutions and meet the specific Ape TAG policy for the disposition of apes to non-SSP institutions;
- to ensure apes sent to non-SSP and/or non-North American facilities will contribute to the genetic or demographic management of the recipient population;
- to ensure that the welfare of the individual animals involved is maintained or improved.

#### **vii. Interactions with Other Non-SSP Holders/Collections**

The Ape TAG and SSPs will cooperate with biomedical organizations through supporting research that promotes the health and quality of life of apes and by sharing information. Providing animals for biomedical research is not a goal of the Ape TAG or SSPs.

Neither the Ape TAG nor the SSPs will approve sending animals to institutions whose primary mission is entertainment, which use aversive control, which display apes in clothing, or otherwise misrepresent or degrade apes. In unusual cases prompted by recruitment of genetically crucial individuals, SSPs may receive animals from (but not provide animals to) such organizations with approval by the Ape TAG.

### **viii. Identification and Control of Health Threats**

The Ape TAG endorses monitoring, investigation and surveillance of disease in captive apes. Each ape SSP (via their veterinary advisor) will:

- identify the major medical problems and pursue methods of diagnostic evaluation and treatment;
- customize the quarantine, movement preventive medicine, and necropsy protocols to best suit individual taxon; and
- provide regular morbidity and mortality reports to IRs

### **ix. Production of Husbandry Manuals/Standardized Guidelines for Care**

The TAG will work with the AZA and individual SSPs to produce standardized guidelines and husbandry manuals for the care for each of the species under the TAG.

### **x. Occupational Risk Management**

The Ape TAG will consider the need for long-term study of occupational injury and illness for ape caretakers, and for a survey of institutional occupational health policies.

## **B. DEFINITION OF THE APE TAG**

### **1. Taxa within the Ape TAG:**

The Ape TAG encompasses the following genera:

- *Hylobates, Symphalangus, Nomascus, Hoolock*
- *Gorilla*
- *Pan*
- *Pongo*

The scope of the TAG encompasses all species and subspecies of apes. All AZA ape populations are managed at the species level with the exception of: western lowland gorillas (subspecific level) and white-cheeked gibbon (see note in Table Ib below). Species are listed in Tables Ia and Ib.

\* Many different taxonomies exist for gibbons. In this document, we have used Groves (2001) and the follow up paper Mootnick & Groves (2005), which lists a single genus and four subgenera.

## C. CONSERVATION STATUS OF THE APES

**Table Ia. Great Apes**

Groves 2001	Synonyms	CITES	U.S. ESA	IUCN Red List
<b>*Western gorilla</b> <i>Gorilla gorilla</i>	Adrotes, castaneiceps, <b>diehli</b> , ellioti, gigas, gina, halli, hansmeyeri, jacobi, manyema, matschiei, mayema, mikenensis, rex-pygmaeorum, savagei, schwartzii, uellensis, zenkeri	Appendix I	Endangered	Endangered as <i>G. gorilla</i> and <i>G.g.gorilla</i> ; Critically Endangered as <i>G.g.diehli</i>
<b>Eastern gorilla</b> <i>Gorilla beringei</i>	Adrotes, <b>beringei</b> , castaneiceps, ellioti, gigas, gina, <b>graueri</b> , halli, hansmeyeri, jacobi, manyema, matschiei, mayema, mikenensis, rex-pygmaeorum, savagei, schwartzii, uellensis, zenkeri	Appendix I	Endangered	Endangered as <i>G.beringei</i> and <i>G.b.graueri</i> ; Critically Endangered as <i>G.b.beringei</i>
<b>Chimpanzee</b> <i>Pan troglodytes</i>	Adolfifriederici, angustimanus, aubryi, calvescens, calvus, castanomale, chimpanse, cottini, ellioti, fuliginosus, fuscus, graueri, hecki, ituriensis, koolokamba, lagaros, papio, pfeifferi, purschei, pusillus, rariplous, reuteri, satyrus, schneideri, schubotzi, <b>schweinfurthii</b> , steindachneri, tschego, vellerosus, <b>verus</b> , yambuyae	Appendix I	Endangered	Endangered at specific and all subspecific levels
<b>Bonobo</b> <i>Pan paniscus</i>	Pygmy chimpanzee; gracile chimpanzee; saturys, <b>paniscus</b>	Appendix I	Endangered	Endangered
<b>Bornean Orangutan</b> <i>Pongo pygmaeus</i>	<b>Pygmaeus</b> , batangtuensis, bornaensis, dadappensis, genepaiensis, landakkensis, langkatensis, rantarensis, satyrus, skalauensis, tuakensis,	Appendix I	Endangered	Endangered at specific and all subspecific levels
<b>Sumatran Orangutan</b> <i>Pongo abelii</i>	<b>Abelii</b> , abongensis, agrias, batangtuensis, bicolor, bornaensis, brookei, curtus, dadappensis, deliensis, genepaiensis, gigantica, landakkensis, langkatensis, morio, owenii, rantarensis, rufus satyrus, skalauensis, sumatranaus, tuakensis, sallichii, wurmbii	Appendix I	Endangered	Critically Endangered

\* Gorilla taxonomy has changed significantly since the last RCP. There are now two recognized species (Western and Eastern gorillas) and two subspecies of western gorilla (*Gorilla gorilla diehli* and *Gorilla gorilla gorilla*). Only *Gorilla gorilla gorilla* is thought to be managed in the captive population; however, we refer to them at the species level throughout the document for consistent presentation with the other apes.

**Table Ib: Gibbons**

Groves 2001	Synonyms	CITES	U.S. ESA	IUCN
Family Hylobatidae				
Genus <i>Hylobates</i> – chromosomes 2N – 44 – Lar group gibbons				
<b>Lar gibbon</b> <i>Hylobates lar</i>	White-handed, entelloides, carpenteri, vestitis, yunanensis	Appendix I	Endangered	Lower Risk Near Threatened
<b>Agile gibbon</b> <i>Hylobates agilis</i>	Dark-handed, Unko, raffleii, albobarbis	Appendix I	Endangered	Lower Risk Near Threatened
<b>Mueller's gibbon</b> <i>Hylobates muelleri</i>	Gray, funereus, abbotti	Appendix I	Endangered	Lower Risk Near threatened
<b>Javan or Silvery gibbon</b> <i>Hylobates moloch</i>	Silvery, pangoalsoni,	Appendix I	Endangered	Critically Endangered
<b>White-bearded gibbon</b> <i>Hylobates albifrons</i>		Appendix I	Endangered	Lower Risk Near threatened
<b>Pileated gibbon</b> <i>Hylobates pileatus</i>		Appendix I	Endangered	Vulnerable but see below**
<b>Kloss gibbon</b> <i>Hylobates klossii</i>	Bilou, dwarf siamang	Appendix I	Endangered	Vulnerable
Genus <i>Hoolock</i> ( <i>Bunopithecus</i> ) – chromosomes 2N – 38 – Hoolock gibbons				
<b>Hoolock gibbon</b> <i>Hoolock hoolock</i>	<i>bunopithecus</i> , <i>leuconedys</i>	Appendix I	Endangered	Endangered but see below**
Genus <i>Sympalangus</i> – chromosomes 2N – 50 – Siamang				
<b>Siamang</b> <i>Sympalangus syndactylus</i>	Continental, Sumatran, continentis, <i>sympalangus</i>	Appendix I	Endangered	Lower Risk Near Threatened
Genus <i>Nomascus</i> – chromosomes 2N – 52 – Crested gibbons				
<b>Black crested gibbon</b> <i>Nomascus concolor</i>	furvogaster, nasutus, jingdongensis, lu	Appendix I	Endangered	Critically Endangered
<b>Hainan gibbon</b> <i>Nomascus hainanus</i>	Hainan Island gibbon N. sp. Cf	Appendix I	Endangered	Critically Endangered
<b>*Northern white-cheeked gibbon</b> <i>Nomascus leucogenys</i>	Crested Indochinese; <i>leucogenys</i> <i>leucogenys</i> ,	Appendix I	Endangered	Endangered
<b>*Southern white-cheeked gibbon</b> <i>Nomascus siki</i>	<i>leucogenys</i> siki	Appendix I	Endangered	DD
<b>Yellow- or red-cheeked gibbon</b> <i>Nomascus gabriellae</i>	Golden-cheeked, Buff-cheeked, Red-cheeked	Appendix I	Endangered	Vulnerable but see below**

\* Many taxonomies exist for gibbons. We have used Groves (2001) and his follow up paper Mootnick & Groves (2005) which lists northern and southern white-cheeked gibbons as two species although many taxonomists list as a single species. We listed them in this table as in Groves; although the majority of white-cheeked gibbons are thought to be the northern species, it is possible that there are some southern white-cheeked gibbons represented in the captive population. However, the population is managed as a species and from here on will be referred to in this document as white-cheeked gibbons.

\*\*The above table represents the routine CITES and US F&WS rankings for Hylobatidae and the current IUCN Red Data list which uses thorough criteria for ranking endangered status; however in many situations the rankings do not represent current information and perspective. At the “Gibbon Diversity

and Conservation Workshop (IPS Congress in Beijing, China, 4-9 August, 2002) the conservation status of gibbons was reviewed by a group of field researchers and gibbon biologists. The collective opinion of the participants identified the most pressing conservation needs for Hylobatidae as represented on [www.gibbons.de](http://www.gibbons.de). “Of the 12 gibbon species comprising at least 29 taxa we have identified the following as the 10 most endangered:

1. Cao-vit black crested gibbon (*Nomascus* sp. cf. *nasutus nasutus*)
2. Hainan black crested gibbon (*Nomascus* sp. cf. *nasutus hainanus*)
3. Northern white-cheeked gibbon (*Nomascus leucogenys leucogenys*)
4. Western black crested gibbon (*Nomascus concolor*)
5. Javan gibbon (*Hylobates moloch*)
6. Kloss's gibbon (*Hylobates klossii*)
7. Southern white-cheeked gibbon (*Nomascus leucogenys siki*)
8. Yellow-cheeked gibbon (*Nomascus gabriellae*)
9. Pileated gibbon (*Hylobates pileatus*)
10. Western hoolock (*Bunopithecus hoolock hoolock*) “

## **II. CORE INFORMATION**

### **A. SPACE ANALYSIS**

#### **1 & 2. Survey details and response rate**

A space survey was conducted in February 2007. Surveys were sent to all AZA institutions with a designated IR. For a number of institutions whose missions clearly do not include apes (e.g. aquaria, museums), this IR was the default IR selected by AZA when the institution does not select an IR. Because we felt it very unlikely that we would hear from these individuals, we followed up only with the 164 institutions whose mission was compatible with housing apes. All such institutions, which include both institutions with and without apes, received follow up emails asking them to complete the space survey if they did not do so by the required date. Of those 164 institutions, we had 133 respond (81% response rate). There are actually 119 institutions that currently house apes; 107 of these responded (90%).

The survey assessed (a) current adolescent and adult holding capacity, and (b) future adolescent and adult holding capacity. We focused on adolescents/adults for two reasons. First, given the life history of apes, immatures are not a constraining factor with respect to space. Second, and more importantly, in previous space surveys institutions greatly overestimated their capacity, generally because of overestimating space for immatures. Thus, by removing immatures we felt we would obtain a more accurate estimation of future space. Finally, for both gibbons and orangutans, because the various species maintained have similar space requirements, we asked for future space projections for the genus as a whole rather than at the species level.

We feel the original text of the RCP adequately explains the above and thus we have left it as is. It is clearly stated there that we surveyed institutions beyond just those holding apes (we state that only 119 institutions hold apes yet we sent to 164).

#### *Determining Target Population Size*

For all ape species managed as SSPs, founder representation and gene diversity is high relative to other mammalian SSPs and meet the general SSP goal of maintaining 90% gene diversity for 100 years (e.g. the current chimpanzee and gorilla populations are estimated to maintain 90% gene diversity for >275 and 400 years, respectively!). This provided the Ape TAG with the opportunity to focus on factors besides genetic diversity in determining the target population size. Specifically, we considered the following: demographic needs of the population and social housing needs of the species. Of particular importance was the need to house 50/50 sex ratios of all ape species. For gibbons, chimpanzees, and bonobos, housing roughly equal numbers of males and females is possible within mixed-sex groups given the natural history of the species. Thus, we were able to set target population sizes very close to predictions for future available space reported in the space survey (which were roughly equivalent to the numbers from the masterplan analyses for those species). However, for gorillas, multiple adult males can be housed together only outside of the presence of females and for orangutans, adult (and often adolescent) males must be housed separately. We found that many institutions did not account for the need to house 50/50 sex ratios, particularly of gorillas, when filling out their space survey (the survey did include instructions to do so). As a result, projected space availabilities for these species are likely overestimated; for example, an institution may have responded that it will have future space for 1.6 gorillas. However, given the need to house a 50/50 sex ratio, the Gorilla SSP will not be forming groups larger than 1.3 to 1.4 and thus 1.6 is an overestimate of what that facility will actually hold. To compensate for this overestimation, we set target population sizes lower than the projected space availability for both gorillas and orangutans. Specifically, we set

the target population sizes at roughly twice the projected space available for adolescent/adult males of these species: zoos listed ~150 spaces for adolescent/adult male gorillas and so the target population size was set at 300; zoos listed ~85 spaces for adolescent/adult male orangutans and the target population size was set at 170 (85 for each species).

The chimpanzee target population size is slightly lower than the projected space available to allow for the potential inclusion of chimps in need of rescue from the entertainment industry, biomedical facilities and private ownership. The Chimp SSP advocates placement of these chimps in bona fide sanctuaries, but placement in AZA zoos may be the desired outcome in some cases.

Finally, for gibbons, we determined target population size by first looking at our recommended levels of program management. Knowing that we wanted to maintain seven species with three as SSPs and four as DERPS, we decided to essentially keep the DERP populations stable; we allowed for a little growth in each (1-5) individuals purely to help maintain healthy demographics in the population while we determine if we can build these populations into SSP (see section below for description). With the remaining space, we essentially divided it among the three SSP species. Because the PMC had determined that the white-cheeked gibbon population would need to grow slightly to maintain 90% genetic diversity over 100 years, we set a slightly larger population size for this species than for the other two.

**3. Table IIa: Current and Target Adolescent/Adult Population Sizes**

Species	Current Adolescent/Adult Population Size	Projected Adolescent/Adult Space (from space survey)	Target Adolescent/Adult Population Size
Eastern gorilla	0	0	0
Western gorilla*	307	410	300
Chimpanzee*	281	290	250
Bonobo*	60	107	115
Total Orangutan Projected Space: 224 (80 adolescent/adult males)			
Sumatran orangutan*	77	112	85
Bornean orangutan*	57	112	85
Total Gibbon Projected Space: 355			
Lar gibbon*	102	90	90
Agile gibbon	6	0	0
Mueller's gibbon	14	0	0
Javan gibbon	8	12	15
White-bearded gibbon	0	0	0
Pileated gibbon	10	15	15
Kloss gibbon	0	0	0
Hoolock gibbon	4	10	10
Siamang*	97	95	95
Black Crested Gibbon	0	0	0
Hainan Gibbon	0	0	0
White-cheeked gibbon*	72	115	115
Yellow-cheeked gibbon	14	15	15

For determination of target population sizes (TPS), please see description above. All TPS marked with an asterisk (\*) are consistent with the TPS examined by the PMC in conjunction with the species' most recent master planning sessions (we did not use those exact TPS because they included immatures and our TPS focuses on adolescents/adults only). TPS for all asterisked species meet the goal of maintaining *at least* 90% genetic diversity for 100 years (as mentioned earlier, some are considerably past that goal) with the exception of white-cheeked gibbon, which could fall to 87%-89% in 100 years.

Hybrid populations of orangutans and gibbons are not breeding and being managed to extinction.

## **B. Species Selection Criteria**

### **1. Selection Criteria Defined**

All five ape taxa existed in captivity in North America, with SSP- or PMP-type population management, prior to the inception of TAGs and RCPs. Given the endangered status of apes in the wild and their high profile nature with the public, there are currently no plans to bring additional species into captivity. However, we did evaluate all of the currently identified ape species. We have evaluated each of these species using the following selection criteria: conservation status, existence of viable North American population, availability of potential founders, conservation potential, scientific research potential, educational value, husbandry expertise and taxonomic uniqueness.

Using a Likert scale (1 (low) to 5 (high)), each criteria was assigned a value for each of the ape taxa listed. These values were then summed to give each species a total value. In calculating the sum, three criteria were weighted: existence of viable North American population, availability of potential founders, and husbandry expertise. The first two criteria were weighted by a factor of two. Because of the endangered status of all apes in the wild and the high profile of apes, there is very limited possibility of acquiring more individuals from habitat countries into North American zoos (exception maybe some species of gibbons that are well represented in Asian sanctuaries). Thus, we felt the presence of an already viable population or the potential for founders in zoos in Europe/Asia was extremely important. We also felt that having husbandry expertise was critical because of our need to maintain a self-sustaining population without additional founders and thus weighted this criterion by 1.5. The final formula for calculating a species' total was: value for conservation status + 2 \* value for existence of viable North American population + 2 \* value for availability of potential founders + conservation potential + scientific research potential + educational value + 1.5 \* value for husbandry expertise + taxonomic uniqueness. Using this formula, the highest value a species could receive was 52.5 and the lowest was 10.5. These numbers were then used in the decision trees located in Appendix II to determine if species would be maintained, phased in or phase out of AZA institutions. Eight species scored very high and similar numbers. As a result of both 1) the high values and 2) the similarity of values among species, it was clear that these would all be ones we would maintain in captivity. We could have thus placed the cut off just below these species at the number 40. However, we decided to use a criterion of 30 because of four highly endangered gibbon species that all received similar scores just above this number. Given the endangerment status of these species combined with the fact that we currently have captive populations that could potentially be supplemented by founders, we decided to move the criteria to 30. This was a natural cut-off point for us because the species scoring below 30 are all of a much lower conservation threat or currently do not have a captive population and thus are not a priority for the Ape TAG (See Appendix II, Table IIa).

### **2. Management Criteria Considered**

Per WCMC guidelines, management criteria used to determine the level of management included: availability within and outside AZA, extinction risk with and without management, demand within AZA, institutional commitment, ease of breeding, extinction risk in wild, acquisition costs, program operating costs, and international and national conservation programs. Most AZA ape populations are demography and genetically healthy and thus on those grounds could qualify as a PMP. However, we chose to give extra weight to the following management criteria based on the high profile status of the species and the low probability of additional founders: availability outside AZA, demand within AZA, institutional commitment, extinction risk in the wild, and acquisition cost.

Merging the selection and management criteria with the space analysis produced the management types listed in Table IIb below.

As is evident from Appendix 2 Table IIb, the management assessment values match the assigned population management level for the vast majority of the 12 categories for all of the SSP species. However, the four species we selected to be DERPs did not match well with the management assessment values. Our rationale for still assigning these species as DERP is as follows: these species are considered among the most critically endangered gibbons and there is the potential to add to the genetic diversity of these four populations through global management programs with Europe and Asia. Thus, the TAG would like to maintain these species in captivity and continue to evaluate whether or not we can grow the population into self-sustaining and genetically healthy SSP populations. To preserve our future options, we do not want to phase out these four species, as had been recommended for the hoolock, Javan and pileated species in the last RCP (yellow cheeked were listed as PIP to SSP). Because of 1) the extreme nature of these populations; 2) low overall demand given that other species of gibbons are available; and 3) our current need to devote the majority of our space to maintaining the three genetically and demographically healthy populations, we feel that they best meet the criteria for a DERP. The Gibbon SSP and TAG will continue to evaluate if we can obtain additional founders from zoos in Europe/Asia and thus upgrade them to SSPs, which is a more appropriate category given the management assessment values that were assigned.

**D. Table IIb : Results of Species Selection Process, Including Rational for Management Strategy**

Species	Program Type	Role of Program	Rationale for Management Strategy**
Eastern gorilla	NR		<ul style="list-style-type: none"> <li>➤ No NA population</li> </ul>
Western gorilla	SSP	<b>Conservation:</b> Genetic reservoir and funding raising potential <b>Education:</b> Flagship Species <b>Research:</b> All aspects of basic biology as species difficult to study in wild	<ul style="list-style-type: none"> <li>➤ High conservation priority</li> <li>➤ Large, genetically diverse captive population</li> <li>➤ Proven husbandry expertise (husbandry manual produced)</li> <li>➤ High public appeal; institutional commitment</li> <li>➤ High education value with good opportunities for conservation education in U.S. and in range countries</li> <li>➤ High potential to affect conservation in the wild through fund raising and conducting conservation and research projects in the wild</li> <li>➤ High exhibit value due to potential for large active groups, high public appeal and recognition</li> <li>➤ Large institutional commitment</li> </ul>
Chimpanzee	SSP	<b>Conservation:</b> Genetic reservoir and funding raising potential <b>Education:</b> Flagship Species <b>Research:</b> Cognition, welfare	<ul style="list-style-type: none"> <li>➤ High conservation priority</li> <li>➤ Large, genetically diverse captive population</li> <li>➤ Proven husbandry expertise (husbandry manual produced)</li> <li>➤ High education value with good opportunities for conservation education in U.S. and in range countries</li> <li>➤ High potential to affect conservation in the wild through fund raising and conducting conservation and research projects in the wild</li> <li>➤ High exhibit value due to potential for large active groups, high public appeal and recognition</li> <li>➤ Large institutional commitment</li> </ul>
Bonobo	SSP	<b>Conservation:</b> Genetic reservoir and funding raising potential <b>Education:</b> Flagship Species <b>Research:</b> All aspects of basic biology as species difficult to study in wild	<ul style="list-style-type: none"> <li>➤ High conservation priority</li> <li>➤ Large, genetically diverse captive population</li> <li>➤ Proven husbandry expertise (husbandry manual produced)</li> <li>➤ High education value with good opportunities for conservation education in U.S. and in range countries</li> <li>➤ High potential to affect conservation in the wild through fund raising and conducting conservation and research projects in the wild</li> <li>➤ High exhibit value due to potential for large active groups, high public appeal and recognition</li> <li>➤ Large institutional commitment</li> </ul>
Sumatran orangutan	SSP	<b>Conservation:</b> Genetic reservoir and funding raising potential <b>Education:</b> Flagship Species <b>Research:</b> All aspects of basic biology as species difficult to study in wild	<ul style="list-style-type: none"> <li>➤ High conservation priority</li> <li>➤ Large, genetically diverse captive population</li> <li>➤ Proven husbandry expertise (husbandry manual produced)</li> <li>➤ High education value with good opportunities for conservation education in U.S. and in range countries</li> <li>➤ High potential to affect conservation in the wild through fund raising and conducting conservation and research projects in the wild</li> <li>➤ High exhibit value due to potential for large active groups, high public appeal and recognition</li> <li>➤ Taxonomically unique as only two species of <i>Pongo</i>, the only Asian great ape, and the only arboreal great ape.</li> <li>➤ Large institutional commitment</li> </ul>
Bornean orangutan			
Lar gibbon	SSP	<b>Conservation:</b>	<ul style="list-style-type: none"> <li>➤ Medium conservation priority</li> </ul>

		<p>Genetic reservoir and funding raising potential</p> <p><b>Education:</b> Flagship Species</p> <p><b>Research:</b> All aspects of basic biology as species difficult to study in wild</p>	<ul style="list-style-type: none"> <li>➤ Large, genetically diverse captive population</li> <li>➤ Proven husbandry expertise (husbandry manual produced)</li> <li>➤ High education value with good opportunities for conservation education in U.S. and in range countries</li> <li>➤ High potential to affect conservation in the wild through fund raising and conducting conservation and research projects in the wild</li> <li>➤ High exhibit value due to potential for large active groups, high public appeal and recognition</li> <li>➤ Large institutional commitment</li> </ul>
Agile gibbon	POP		<ul style="list-style-type: none"> <li>➤ Medium conservation priority</li> <li>➤ Small NA population with limited opportunities for additional founders</li> </ul>
Mueller's Gibbon	POP		<ul style="list-style-type: none"> <li>➤ Medium conservation priority</li> <li>➤ Small NA population with limited opportunities for additional founders</li> </ul>
Javan gibbon	DERP	<p><b>Conservation:</b> Genetic reservoir and funding raising potential</p> <p><b>Education:</b> Flagship Species</p> <p><b>Research:</b> All aspects of basic biology as species difficult to study in wild</p>	<ul style="list-style-type: none"> <li>➤ High conservation priority</li> <li>➤ Small captive population. Limited possibility for additional founders that SSP is currently evaluating</li> <li>➤ Proven husbandry expertise</li> <li>➤ High education value with good opportunities for conservation education in U.S. and in range countries</li> <li>➤ High potential to affect conservation in the wild through fund raising and conducting conservation and research projects in the wild</li> <li>➤ High exhibit value due to active groups, high public appeal and recognition</li> </ul>
White-bearded gibbon	NR		<ul style="list-style-type: none"> <li>➤ No NA population</li> </ul>
Pileated gibbon	DERP	<p><b>Conservation:</b> Genetic reservoir and funding raising potential</p> <p><b>Education:</b> Flagship Species</p> <p><b>Research:</b> All aspects of basic biology as species difficult to study in wild</p>	<ul style="list-style-type: none"> <li>➤ High conservation priority</li> <li>➤ Small captive population but potential founders available</li> <li>➤ Proven husbandry expertise</li> <li>➤ High education value with good opportunities for conservation education in U.S. and in range countries</li> <li>➤ High potential to affect conservation in the wild through fund raising and conducting conservation and research projects in the wild</li> <li>➤ High exhibit value due to active groups, high public appeal and recognition</li> </ul>
Kloss gibbon	NR		<ul style="list-style-type: none"> <li>➤ No NA population</li> </ul>
Hoolock gibbon	DERP	<p><b>Conservation:</b> Genetic reservoir and funding raising potential</p> <p><b>Education:</b> Flagship Species</p> <p><b>Research:</b> All aspects of basic biology as species difficult to study in wild</p>	<ul style="list-style-type: none"> <li>➤ High conservation priority</li> <li>➤ Small captive population but potential founders available</li> <li>➤ Proven husbandry expertise</li> <li>➤ High education value with good opportunities for conservation education in U.S. and in range countries</li> <li>➤ High potential to affect conservation in the wild through fund raising and conducting conservation and research projects in the wild</li> <li>➤ High exhibit value due to active groups, high public appeal and recognition</li> <li>➤ Taxonomically unique</li> <li>➤ Strong institutional commitment among those currently housing</li> </ul>
Siamang	SSP	<p><b>Conservation:</b> Genetic reservoir and funding raising potential</p> <p><b>Education:</b> Flagship</p>	<ul style="list-style-type: none"> <li>➤ Medium conservation priority</li> <li>➤ Large, genetically diverse captive population</li> <li>➤ Proven husbandry expertise (husbandry manual produced)</li> <li>➤ High education value with good opportunities for conservation education in U.S. and in range countries</li> </ul>

		Species <b>Research:</b> All aspects of basic biology as species difficult to study in wild	<ul style="list-style-type: none"> <li>➢ High potential to affect conservation in the wild through fund raising and conducting conservation and research projects in the wild</li> <li>➢ High exhibit value due to active groups, high public appeal and recognition</li> <li>➢ Taxonomically unique</li> </ul>
Black-crested gibbon	NR		<ul style="list-style-type: none"> <li>➢ No NA population</li> </ul>
Hainan gibbon	NR		<ul style="list-style-type: none"> <li>➢ No NA population</li> </ul>
White-cheeked gibbon	SSP	<b>Conservation:</b> Genetic reservoir and funding raising potential <b>Education:</b> Flagship Species <b>Research:</b> All aspects of basic biology as species difficult to study in wild	<ul style="list-style-type: none"> <li>➢ High conservation priority</li> <li>➢ Large, genetically diverse captive population</li> <li>➢ Proven husbandry expertise (husbandry manual produced)</li> <li>➢ High education value with good opportunities for conservation education in U.S. and in range countries</li> <li>➢ High potential to affect conservation in the wild through fund raising and conducting conservation and research projects in the wild</li> <li>➢ High exhibit value due to active groups, high public appeal and recognition</li> </ul>
Yellow-cheeked gibbon	DERP	<b>Conservation:</b> Genetic reservoir and funding raising potential <b>Education:</b> Flagship Species <b>Research:</b> All aspects of basic biology as species difficult to study in wild	<ul style="list-style-type: none"> <li>➢ High conservation priority</li> <li>➢ Small captive population but potential founders available</li> <li>➢ Proven husbandry expertise</li> <li>➢ High education value with good opportunities for conservation education in U.S. and in range countries</li> <li>➢ High potential to affect conservation in the wild through fund raising and conducting conservation and research projects in the wild</li> <li>➢ High exhibit value due to active groups, high public appeal and recognition</li> <li>➢ Strong institutional commitment among those currently housing</li> </ul>

\*\* Note: Not all factors that were used to determine the management type are listed in the Table. The focus is instead on selection and management criteria that were heavily weighted.

- **SSP:** Species Survival Plan; intense management; studbook necessary; maintain x% genetic diversity for y years; compliance by participating institutions is expected, per the AZA “Full Participation” policy; make breeding recommendations and develop masterplan; management group
- **POP:** Phase Out Population; breeding moratorium; phase-out monitored in some manner
- **DERP:** Display, Education, and Research Population. Derps are not managed under the auspices of AZA or its programs and are not guaranteed population management advice or support.
- **NR:** Not Recommended; not currently held in AZA collections; TAG recommends that they not be brought into AZA collections

A note on management types of gibbons, and in particularly those species marked with an asterisk (see also text above). Currently, AZA institutions maintain self-sustaining populations of three gibbon species: Lar (white-handed), white-cheeked, and siamang. Neither Lar gibbons nor siamangs are considered at the highest level of conservation priority with respect to the status of wild populations; however, with the crisis situation for wildlife in Asia, it is likely that their status could become more critical in the near future. Thus, we feel it is important to maintain the demographic and genetically healthy captive populations that currently exist. Six other species of gibbons (hoolock, pileated, yellow-cheeked, agile, Muller’s and Javan) currently exist within AZA (includes one non AZA facility, the Gibbon Conservation Center (see description below)) in very small numbers. Four of these species are considered among the most critically

endangered gibbons (hoolock, pileated, yellow-cheeked, and Javan) and there is the potential to add to the genetic diversity of these four populations through global management programs with Europe and Asia. Thus, the TAG would like to maintain these species in captivity and continue to evaluate whether or not we can grow the population into self-sustaining and genetically healthy SSP populations. If this becomes likely, the TAG would consider decreasing the number of Lar gibbons and/or siamangs to increase available space. To preserve our future options, we do not want to phase out these four species, as had been recommended for the hoolock, Javan and pileated species in the last RCP (yellow cheeked were listed as PIP to SSP). Because of 1) the extreme nature of these populations; 2) low overall demand given that other species of gibbons are available; and 3) our current need to devote the majority of our space to maintaining the three genetically and demographically healthy populations, we feel that they best meet the criteria for a DERP. The Gibbon SSP and TAG will continue to evaluate if we can obtain additional founders from zoos in Europe/Asia and thus upgrade them to SSPs.

Note on Gibbon Conservation Center: The Gibbon Conservation Center (GCC) has traditionally been a related AZA facility and participated in the Gibbon SSP program. The CCG is currently in the process of rebuilding and thus is delaying reapplying for related facility status until after the new facility is on-line. At that time, it plans to again be part of AZA (J. Petersen, personal communication). As a result, and due to the fact that GCC houses three of the highly endangered gibbon species that the Ape TAG has listed as DERP populations and would like to consider growing should founders become available (pileated, Javan, and hoolock species), individual gibbons living at GCC were included in current and target population sizes; this approach was supported by AZA Conservation and Science staff in individual conversations they had with both Tara Stoinski and Jay Petersen.

## E. SUMMARY LIST/TABLES OF RECOMMENDATION

**Table IIc: Recommendation Summary Table**

Common name	Program Level	Target Population Size	Program Leader	Studbook keeper
Eastern gorilla <i>Gorilla beringei</i>	NR	0		NA
Western gorilla <i>Gorilla gorilla</i>	SSP	300	Kristen Lukas Cleveland Metropark Zoo 3900 Wildlife Way Cleveland, OH 44109-6500 216 635 2523 <a href="mailto:kel@clevelandmetroparks.com">kel@clevelandmetroparks.com</a>	Dan Wharton Brookfield Zoo 3300 Golf Road Brookfield, IL 60513-1095  <a href="mailto:Dan.Wharton@CZS.org">Dan.Wharton@CZS.org</a>
Chimpanzee <i>Pan troglodytes</i>	SSP	250	Steve Ross Lincoln Park Zoo 2001 Clark Street Chicago, IL 60614 312 742 7263 <a href="mailto:Sross@lpzoo.org">Sross@lpzoo.org</a>	Steve Ross Lincoln Park Zoo 2001 Clark Street Chicago, IL 60614 312 742 7263 <a href="mailto:Sross@lpzoo.org">Sross@lpzoo.org</a>
Bonobo <i>Pan paniscus</i>	SSP	115	Gay Reinartz Zoological Soc of Milwaukee 1412 N. Water Street Milwaukee, WI 53202 <a href="mailto:gayr@zoosociety.org">gayr@zoosociety.org</a>	Zjef J.J.M. Pereboom, Centre for Research and Conservation, Royal Zoological Society of Antwerp Koningin Astridplein 26, 2018 Antwerpen, Belgium <a href="mailto:Zjef.Pereboom@kmda.org">Zjef.Pereboom@kmda.org</a>
Sumatran orangutan <i>Pongo abelii</i>	SSP	85	Lori Perkins Zoo Atlanta 800 Cherokee Ave. SE Atlanta, GA 30315-1440 404 624 5931 <a href="mailto:lori410@mindspring.com">lori410@mindspring.com</a>	Empty position (managed as international studbook; WAZA is currently looking for replacement)
Bornean orangutan <i>Pongo pygmaeus</i>	SSP	85		
Lar gibbon <i>Hylobates lar</i>	SSP	90	Jay Petersen Brookfield Zoo 3300 Golf Road Brookfield, IL 60513 708 688 8416 <a href="mailto:Jay.Petersen@CZS.org">Jay.Petersen@CZS.org</a>	<i>Population manager:</i> Jay Petersen Brookfield Zoo 3300 Golf Road Brookfield, IL 60513 708 688 8416 <a href="mailto:Jay.Petersen@CZS.org">Jay.Petersen@CZS.org</a> <i>Studbook coordinator:</i> Adrienne Whiteley Rosamond Gifford Zoo One Conservation Place Syracuse, NY 13204 315 435 8511 x 119 <a href="mailto:Adrienne.whiteley@ongov.net">Adrienne.whiteley@ongov.net</a>
Agile gibbon <i>Hylobates agilis</i>	POP	0		NA
Mueller's gibbon <i>Hylobates muelleri</i>	POP	0		NA

Javan gibbon <i>Hylobates moloch</i>	DERP	15		Alan Mootnick Gibbon Conservation Center PO Box 800249 Santa Clarita, CA 91380 <a href="mailto:hoolock@earthlink.net">hoolock@earthlink.net</a>
White bearded gibbon <i>Hylobates albifrons</i>	NR	0		
Pileated gibbon <i>Hylobates pileatus</i>	DERP	15		Alan Mootnick Gibbon Conservation Center PO Box 800249 Santa Clarita, CA 91380 <a href="mailto:hoolock@earthlink.net">hoolock@earthlink.net</a>
Kloss gibbon <i>Hylobates klossii</i>	NR	0		NA
Hoolock gibbon <i>Hoolock hoolock</i>	DERP	10		Alan Mootnick Gibbon Conservation Center PO Box 800249 Santa Clarita, CA 91380 661-296-2737 <a href="mailto:hoolock@earthlink.net">hoolock@earthlink.net</a>
Siamang <i>Sympalangus syndactylus</i>	SSP	95		<i>Population Manager:</i> Connie Philipp Nashville Zoo 3777 Nolensville Road Nashville, TN 37211 615 833 1534 x 151 <a href="mailto:Cphilipp@nashvillezoo.org">Cphilipp@nashvillezoo.org</a> <i>Studbook keeper:</i> Cindy Kreider Erie Zoo 423 W 38 <sup>th</sup> St. PO Box 2368 Erie, PA 16508 814 864 4091 <a href="mailto:ckreider@eriezoo.org">ckreider@eriezoo.org</a>
Black crested gibbon <i>Nomascus concolor</i>	NR	0		NA
Hainan gibbon <i>Nomascus hainanus</i>	NR	0		NA

White-cheeked gibbon <i>Nomascus leucogenys</i>	SSP	115	<p><i>Population Manager:</i> Sue Margulis Lincoln Park Zoo 2001 Clark Street Chicago, IL 60614 312 742 2345 <a href="mailto:smargulis@lpzoo.org">smargulis@lpzoo.org</a></p> <p><i>Studbook keeper:</i> Sue Margulis Lincoln Park Zoo 2001 Clark Street Chicago, IL 60614 312 742 2345</p>
Yellow - cheeked gibbon <i>Nomascus gabriellae</i>	DERP	15	Jennie McNary Los Angeles Zoo 5333 Zoo Drive Los Angeles, CA 90027 <a href="mailto:jmcnary@zoo.lacity.org">jmcnary@zoo.lacity.org</a>

**Table IId: Program Status Table**

<b>Program</b>	<b>Date program initiated</b>	<b>Current program leader</b>	<b>Date leadership assumed</b>	<b>Date of last studbook publication (updated)</b>	<b>Date studbook is due</b>	<b>Date of last master plan publication</b>
Western gorilla	12/31/1982	Kristen Lukas, Cleveland Metroparks Zoo	1/17/2007	4/18/2000 (1/2007)	1/1/2009	7/5/2006 (update) 11/7/2005 (full)
Chimpanzee	10/10/1989	Steve Ross, Lincoln Park Zoo	9/13/2002	7/10/2006	7/10/2009	9/21/06
Bonobo	3/18/1988	Gay Reinartz, Milwaukee Zoological Society	3/18/1988	Studbook produced by EEP	Studbook produced by EEP	4/26/2006
Sumatran orangutan	12/31/1982	Lori Perkins, Zoo Atlanta	12/31/1982	12/31/2002 (10/2007)	No studbook keeper	10/13/2006
Bornean orangutan				11/3/2003 (10/2007)	No studbook keeper	10/13/2006
Lar gibbon	9/26/1990	Jay Petersen, Brookfield Zoo	8/31/2002	unknown (6/30/1996)	1/9/2009	10/7/2005
Agile gibbon				NA	NA	NA
Muller's gibbon				NA	NA	NA
Javan gibbon				NA	NA	NA
Pileated gibbon				NA	NA	NA
Hoolock gibbon				NA	NA	NA
Siamang				8/22/2007	8/22/2010	11/26/2005
White-cheeked gibbon				unknown (5/2007)	Studbook keeper assigned 12/2007	5/23/2005
Yellow - cheeked gibbon				NA	NA	NA

Note: Table includes only species that are currently maintained in captivity

**Table IIe: Recommendation Updates Table**

Common name	Scientific name	Previous program status	Current Rec	Program leader change	New program leader contact
Eastern gorilla	<i>Gorilla beringei</i>	Not in RCP	NR	NA	
Western gorilla	<i>Gorilla gorilla</i>	SSP	SSP	Yes	Kristen Lukas Cleveland Metropark Zoo 3900 Wildlife Way Cleveland, OH 44109-6500 216 635 2523 <a href="mailto:kel@clevelandmetroparks.com">kel@clevelandmetroparks.com</a>
Chimpanzee	<i>Pan troglodytes</i>	SSP	SSP	Yes	Steve Ross Lincoln Park Zoo 2001 Clark Street Chicago, IL 60614 312 742 7263 <a href="mailto:Sross@lpzoo.org">Sross@lpzoo.org</a>
Bonobo	<i>Pan paniscus</i>	SSP	SSP	No	
Sumatran orangutan	<i>Pongo abelii</i>	SSP	SSP	No	
Bornean orangutan	<i>Pongo pygmaeus</i>	SSP	SSP	No	
Lar gibbon	<i>Hylobates lar</i>	SSP	SSP	Yes	Jay Petersen Brookfield Zoo 3300 Golf Road Brookfield, IL 60513 708 688 8416 <a href="mailto:Jay.Petersen@CZS.org">Jay.Petersen@CZS.org</a>
Agile gibbon	<i>Hylobates agilis</i>	POP	POP	Yes	
Mueller's gibbon	<i>Hylobates muelleri</i>	POP	POP	Yes	
Javan gibbon	<i>Hylobates moloch</i>	POP	DERP	Yes	
White-bearded gibbon	<i>Hylobates albifrons</i>	NR	NR	Yes	
Pileated gibbon	<i>Hylobates pileatus</i>	POP	DERP	Yes	
Kloss gibbon	<i>Hylobates klossii</i>	NR	NR	Yes	
Hoolock gibbon	<i>Hoolock hoolock</i>	POP	DERP	Yes	
Siamang	<i>Sympalangus syndactylus</i>	SSP	SSP	Yes	
Black crested gibbon	<i>Nomascus concolor</i>	Not in previous RCP	NR	Yes	
Hainan Gibbon	<i>Nomascus hainanus</i>	Not in previous RCP	NR	Yes	
White-cheeked gibbon	<i>Nomascus leucogenys</i>	SSP	SSP	Yes	
Yellow - cheeked gibbon	<i>Nomascus gabriellae</i>	PIP TO SSP	DERP	Yes	

### **III. ADDITIONAL INFORMATION**

#### **A. CONTACT INFORMATION FOR PROGRAM LEADERS**

See Table E1 on page 15.

#### **B. STRUCTURE OF THE APE TAG**

The Ape TAG is headed by a Chair, Vice-Chair and Secretary (Officers). The Ape TAG Steering Committee contains a minimum of 5 and maximum of 15 members elected from the TAG Institutional Representatives (IRs). SSP Coordinators may also be Institutional Representatives and are, therefore, eligible for election to the steering committee. However, if SSP Coordinators or Studbook Keepers are not institutional representatives they are designated as non voting advisors to the Steering Committee. Steering Committee members serve three-year terms and are expected to attend a minimum of one TAG meeting per year. Steering Committee members are expected to champion a TAG subcommittee (see Appendix 1 for details of responsibilities) and to comment and, where appropriate, vote on 90% of issues presented to the TAG within the prescribed timeline. Steering Committee members who do not meet these criteria may be removed from the TAG by majority vote of the Steering Committee.

Roles and responsibilities of the officers are spelled out in the TAG handbook. But in addition to running elections, the Secretary maintains the various TAG listservs. The Vice Chair assists with TAG responsibilities, as requested by the TAG chair, and is responsible for working with subcommittees to help them accomplish their goals.

In the event that the Ape TAG or an ape SSP discusses sensitive issues pertaining to a particular institution, and the IR from that institution is a member of the TAG Steering Committee or SSP Management Group, the IR will recuse him/herself from the discussion. If the TAG Chair or SSP Coordinator's institution is being discussed, the Chair/Coordinator will recuse him/herself and the Vice Chair will lead the discussion.

#### **APE TAG COMMITTEE MEMBERS, SUBCOMMITTEE CHAMPIONS & ADVISORS**

Steering Committee—Voting Members			
	Name	Subcommittee Assignment	Email
Chair	Tara Stoinski	<i>In Situ</i> Conservation	<a href="mailto:tstoinski@zooatlanta.org">tstoinski@zooatlanta.org</a>
Vice Chair	Dwight Scott	Captive Management	<a href="mailto:dwightscott@ci.tulsa.ok.us">dwightscott@ci.tulsa.ok.us</a>
Secretary	Kristen Lukas	Research	<a href="mailto:kel@clevelandmetroparks.com">kel@clevelandmetroparks.com</a>
Steering Committee	Todd Bowsher	Biomaterials	<a href="mailto:tbowsher@msn.com">tbowsher@msn.com</a>
	Hollie Colahan	Training	<a href="mailto:hcolahan@houstonzoo.org">hcolahan@houstonzoo.org</a>
	John Davis	Standardized guidelines	<a href="mailto:jdavis@riverbanks.org">jdavis@riverbanks.org</a>
	Dusty Lombardi	Hand rearing	<a href="mailto:Dusty.Lombardi@columbuszoo.org">Dusty.Lombardi@columbuszoo.org</a>
	Sue Margulis	Education	<a href="mailto:smargulis@lpzoo.org">smargulis@lpzoo.org</a>
	Jan Rafert		<a href="mailto:JRafert@milwcnty.com">JRafert@milwcnty.com</a>
	Rob Shumaker	Apes in entertainment	<a href="mailto:rshumaker@greatapetrust.org">rshumaker@greatapetrust.org</a>
SSP Advisors (Non voting)			
Orangutans	Lori Perkins		<a href="mailto:Lori410@mindspring.com">Lori410@mindspring.com</a>
Gibbons	Jay Petersen		<a href="mailto:Jay.Petersen@CZS.org">Jay.Petersen@CZS.org</a>
Bonobos	Gay Reinartz		<a href="mailto:gayr@zoosociety.org">gayr@zoosociety.org</a>
Chimpanzees	Steve Ross		<a href="mailto:sross@lpzoo.org">sross@lpzoo.org</a>
Gorillas	Kristen Lukas		<a href="mailto:kel@clevelandmetroparks.com">kel@clevelandmetroparks.com</a>
Topic Advisors (Non voting)			

Reintroduction	Ben Beck		<a href="mailto:bbeck@greatapetrust.org">bbeck@greatapetrust.org</a>
Nutrition	Ellen Dierenfeld		<a href="mailto:dierenfeld@stlzoo.org">dierenfeld@stlzoo.org</a>
Education Team	Stuart Levine		<a href="mailto:Stuart.P.Levine@disney.com">Stuart.P.Levine@disney.com</a>
	Anne Warner		<a href="mailto:Anne.warner@oregonzoo.org">Anne.warner@oregonzoo.org</a>
	Michelle Jost		<a href="mailto:mjost@sheddaquarium.org">mjost@sheddaquarium.org</a>
Pathology	Linda Lowenstein		<a href="mailto:ljlowenstein@vmth.ucdavis.edu">ljlowenstein@vmth.ucdavis.edu</a>
PR/Marketing	To be filled		
Development	To be filled		
Veterinary	Pam Dennis		<a href="mailto:pmd@clevelandmetroparks.com">pmd@clevelandmetroparks.com</a>
Biomaterials	Cathi Lehn		<a href="mailto:cleh@cbgarden.org">clehn@cbgarden.org</a>
Animal Welfare	Joseph Barber		<a href="mailto:jbarber@wsc.org">jbarber@wsc.org</a>
Contraception	Ingrid Porton		<a href="mailto:rufflemur@aol.com">rufflemur@aol.com</a>
SPMAG	Lori Perkins		<a href="mailto:Lori410@mindspring.com">Lori410@mindspring.com</a>
Sanctuaries	Tammie Bettinger		<a href="mailto:Tamara.Bettinger@disney.com">Tamara.Bettinger@disney.com</a>

## **C. Ape TAG Strategic Plan and Guidelines/Policies**

### **1. Strategic Plan:**

The following strategic plan was adopted in 1994 and has guided the activities of the Ape TAG since that time. It has been updated in 2007 to reflect the current activities of the TAG.

#### **i. Genetic and Demographic Management (Ape TAG subcommittee: Population management)**

Recognizing that reintroduction of captive-bred apes to the wild is unlikely to be a priority conservation strategy in the next 100 years, the Association of Zoos and Aquariums' (AZA's) Ape Taxon Advisory Group (TAG) will maintain healthy, well-managed captive populations for public education and scientific study, and to generate direct support for *in situ* research and conservation activities.

Each ape Species Survival Plan (SSP) will formulate and publish a masterplan at least every three years (recommended: every two years) to produce and maintain genetically and demographically sound, self-sustaining populations (not dependent on augmentation from the wild) for a minimum of 100 years, each in consultation with or using the AZA Population Management Center process.

The masterplans will be consistent with an ape North American Regional Collection Plan (RCP) that includes target collection sizes for the five taxa, current and projected space availability, and recommendations for management of the species of each genus.

#### **ii. Education (Ape TAG subcommittees: Education, Conservation; Ape TAG advisor: Education)**

The Ape TAG will develop a plan to maximize the educational potential of captive ape populations. The Ape TAG will identify at least two education advisors to serve at the TAG. These individuals will be invited to all meetings. Education Advisors will help the TAG define educational goals and objectives.

The educational program of the Ape TAG will include:

1) Developing key messages on apes (with a specific attempt to create cross-specific products where applicable) and recommending that they be presented at exhibiting institutions. These messages should be interspecific and include information on biology and conservation of apes, the use of apes in entertainment, and the relationship of captive apes to overall ape conservation. This might include a deromanticized consideration of the threats and rigors of the lives of wild apes (e.g., food shortages, predation, climatic extremes, parasites and other illnesses, injuries, social competition and serious aggression), and an honest account of the quality of life in zoos (e.g., steady supplies of nutritious foods, absence of predators, buffering against climatic extremes, treatment of illness and injury, intervention against escalated social aggression). The TAG will work to make this information available to range countries where applicable.

2) Developing materials to promote conservation-related behavior among zoo visitors and other audiences. An example might be a program to encourage recycling of cell phones as a means of reducing coltan extraction in tropical forests.

- 3) Working with the Ape TAG Research Subcommittee to identify priority education research projects, explore the most effective methods of interpretation, and conducting scientific evaluation of various educational materials and methods.
- 4) Developing a skeletal program for an ape awareness month aimed at increasing the understanding and conservation of apes.
- 5) Developing a web site for the Ape TAG

### **iii. Research and Conservation (Ape TAG subcommittees: Research and Conservation)**

The Ape TAG has a general goal of maximizing integration of *in situ* research and conservation efforts into the activities of the SSPs and the Ape TAG and a goal of fostering communication with and support for such efforts by the SSPs and Ape TAG.

The TAG will develop a list of priority *in* and *ex situ* research and conservation projects for both individual institutional and CEF support. The TAG will also facilitate a collective effort by AZA institutions to raise funds for long-term, sustainable conservation of apes. Given the endangered status of apes in the wild, it is expected that all AZA institutions housing apes contribute to *in situ* ape conservation, whether through individual efforts or the collective effort of the TAG. In identifying *in situ* conservation and research projects for support, the TAG will work with established ape experts and conservation entities (e.g. GRASP, IUCN Primate Specialist Group, etc). In identifying *ex situ* research projects, the TAG will look at efforts that are cross cutting and address current needs or questions related to management, husbandry and other captive issues.

In addition, each SSP also will identify *ex situ* topics on its individual species that require scientific investigation. Among these could be scientific evaluation of the effectiveness of educational materials, institution-building, public relations programs, behavioral enrichment and exhibit design, animal management and husbandry, and animal health programs. Researchers are reminded that comparative (sub) specific studies within each genus may be uniquely valuable.

The TAG will interact with primatological and conservation societies, e.g. American Society of Primatologists, International Primatological Society, Society for Conservation Biology. Attendance at annual meetings and sponsorship of symposia (with published proceedings) are appropriate vehicles for interaction.

### **iv. Quality of Life (Ape TAG subcommittees: Captive Management, which includes Standardized Guidelines and Training; Birth Management/Hand Rearing; Ape TAG advisors: Animal Welfare, Nutrition)**

The Ape TAG recognizes as a goal maintaining the health and quality of life of all captive apes in SSP populations, and their progeny, for their entire lifetimes.

The work of each SSP has resulted in significant advances in welfare by housing apes in exhibits and groupings that promote normal behavior. Each SSP will build on these accomplishments by establishing standards for housing and managing individuals of its respective taxon of ape and for their disposition. Each SSP will additionally establish standards for presenting its respective ape taxon, specifically ensuring that husbandry, exhibits and interpretive programs: 1) accurately portray the biology and conservation

status of the species, 2) do not require apes to behave in ways that detract from their dignity or inherent value, 3) foster natural social groupings, minimize hand rearing and promote the development of species-typical behaviors; and 4) do not detract from the conservation of the species or welfare of individuals. Standards must apply to all of the individuals kept in a facility, not simply those in featured exhibit groups. The Ape TAG will attempt to incorporate these standards, and in some cases more detailed standards, into AZA accreditation criteria. The standards can then be enforced rigorously through the accreditation process as well as by direct consultation between the SSPs and individual institutions. An attempt will be made to urge AZA to consult with Species Coordinators before each member institution's accreditation inspection.

To clarify and support housing and care standards, each SSP will operationally define variables that measure quality of life, including but not limited to reproductive success, normal social behavior, absence of stereotypies and other abnormal behaviors, frequency of injury and illness, activity levels, behavioral competence, and longevity. The Ape TAG and SSPs will then encourage empirical research using these variables to assess and refine the effectiveness of housing, management and presentation policies.

The Ape TAG will strongly encourage institutions to plan, design and construct facilities that have the flexibility to accommodate adults of both sexes in equal numbers while adhering to housing and management standards for each ape taxon. Member institutions will provide plans and specifications for new ape facilities to the appropriate Species Coordinator. This should precede ground-breaking. The Ape TAG and/or individual SSPs will attempt to establish a central database of exhibit design specifications for use by members and collaborating institutions. The Ape TAG and SSPs will avoid the production of animals that cannot be housed adequately for their entire lives in facilities that meet established standards.

#### **v. Fund Raising (Ape TAG subcommittee: Conservation; see also section iii)**

The Ape TAG recognizes a unique responsibility and opportunity for fund raising because of the broad appeal and visibility of apes. The Ape TAG can assemble lists of the resource needs of recognized *in situ* projects, and then attract funding for ape conservation and research in general.

The unifying focus of fund raising efforts is *in situ* research, conservation, and conservation education efforts. An appropriate portion of contributions to the Ape TAG, SSPs and holding institutions should be applied to the goals of the Ape TAG to promote these endeavors. To encourage giving, institutions will be continually reminded of the financial savings resulting from successful cooperative SSP propagation and management efforts, and of their obligations to direct a substantial portion of these savings toward *in situ* research and conservation. Additionally, institutions are reminded of the endangered status of all groups of apes in the wild and are expected to contribute to *in situ* ape conservation projects either at the individual level or through the collective TAG process.

The Ape TAG will develop a collective fund raising effort and identify, review and prioritize projects to which these funds will be directed. The TAG will also assist individual institutions with individual giving programs when requested. All Ape TAG/SSP fund raising activities must follow established AZA Board-approved

guidelines, including record-keeping and reporting requirements for development activities.

Individual institutions will benefit by encouraging their donors to support Ape TAG/SSP strategic goals, thus highlighting the institution's contribution to conservation. These fund raising actions are offered as suggestions, not mandates. The Ape TAG will appoint a development liaison, and work closely with the AZA Development Office, to coordinate SSP, Ape TAG and AZA efforts.

The Ape TAG recognizes, and recommends to the SSPs, the unique opportunities for "piggybacking" protection of national parks and reserves, and/or conservation and study of less "glamorous" animal and plant taxa, on the development appeal of apes. The Ape TAG will consult with AZA Conservation Action Plans (CAPs) and the AZA Field Conservation Committee (FCC) to help identify these opportunities.

**vi. Interactions with non-North American Zoos (Ape TAG subcommittee: Population Management; Ape TAG advisor: Animal welfare; see also Surplus Animal Guidelines)**

The Ape TAG and appropriate SSPs will review any and all proposals to send apes to zoos outside of North America, to the degree that such transactions promote the Ape TAG and SSP strategic plans and cooperative global plans as they develop. Recipient zoos, regardless of geographic location, must meet all standards for housing, management and presentation that pertain to SSP institutions, and must meet the specific Ape TAG policy on the disposition of apes to non-SSP institutions. See Ape TAG Surplus Animal Guidelines below for additional detail.

**vii. Interactions with Other Non-SSP Holders/Collections (Ape TAG subcommittees: Apes in entertainment and legislative issues; Ape TAG advisors: Sanctuaries and Reintroduction)**

The Ape TAG and SSPs will cooperate with biomedical organizations through supporting research that promotes the health and quality of life of apes, and by sharing information. The Ape TAG and SSPs will not provide animals for biomedical research.

Neither the Ape TAG nor the SSPs approve of institutions whose primary mission is entertainment, which routinely engage in aversive control, which display apes in clothing, or otherwise misrepresent or degrade apes (SEE SECTION 2.IV). Additionally, the Ape TAG opposes the ownership of apes as pets by private individuals (SEE SECTION 2.V). In unusual cases prompted by recruitment of genetically crucial individuals, SSPs may receive animals from (but not provide animals to) such organizations/individuals with approval by the Ape TAG. The Ape TAG does not condone the use of such privately held animals in any form of public relations, fund raising and on- and off-site outreach programs (as defined in AZA accreditation standards) by AZA affiliated members or institutions. Further, the Ape TAG does not condone the recruitment of these apes by AZA affiliated researchers or institutions for research.

The Ape TAG is concerned with the increasing number of orphaned apes and need for ape sanctuaries. The Ape TAG recognizes that well-managed ape sanctuaries can serve

the welfare of individual confiscated apes and may also serve as the focal point for conservation education programs that aid in raising the awareness of people in range countries about the importance of preserving apes and their habitat. The Ape TAG encourages SSPs to share information and expertise with sanctuary managers in order to improve the quality of life of apes and to design and implement conservation education programs. The Ape TAG will work with the IUCN/SSC Reintroduction Specialist Group (RSG), Primate Specialist Group (PSG), and Pan African Sanctuary Alliance (PASA) in any and all appropriate ways to help with the sanctuary's mission of conservation and education. This includes providing financial and in kind support (see conservation section).

Recruiting apes from sanctuaries is not an Ape TAG or SSP goal. Further, the Ape TAG currently does not condone the importation of apes from habitat countries to AZA institutions and will work to encourage the return of confiscated apes to accredited and/or credible facilities in their native countries. If the circumstance arises where AZA institutions are asked by a habitat country to consider importing apes as part of that habitat country's national conservation plan, the TAG and relevant SSP would need to provide a clear, direct statement of specific support for that import. If AZA institutions are asked to consider housing apes held by individual owners, non accredited zoos, the entertainment industry, the TAG and individual SSPs will work with appropriate legal and protection groups and the AZA Animal Welfare Committee to investigate the opportunities for housing within AZA.

**viii. Identification and Control of Health Threats (Ape TAG subcommittee: Biomaterials; Ape TAG advisors: Veterinary, Nutrition)**

The Ape TAG endorses the monitoring, investigation and surveillance of disease in captive apes. The TAG and each ape SSP will designate a Veterinary Advisor. The TAG's Veterinary Advisor's responsibilities include but are not limited to: (a) coordinating the identification of major medical problems among the taxon and pursuing methods of diagnostic evaluation and treatment; (b) working with the individual SSP veterinary advisors and the AAZV and affiliated groups to develop and publicize standardized necropsy protocols, quarantine, movement preventive medicine; (c) working with the Biomaterials Subcommittee of the Ape TAG to determine priority research projects involving biomaterials for the Ape TAG to endorse.

**ix. Production of Husbandry Manuals/Standardized Guidelines for Care (Ape TAG subcommittees: Captive Management, which includes Standardized Guidelines and Training; Birth Management/Hand Rearing; Ape TAG advisors: Animal Welfare, Nutrition)**

Individual SSPs are responsible for producing standardized guidelines and husbandry manuals for the care for each of their species. The Ape TAG will work with the SSPs where needed to assist with drafting these documents and will review all completed documents.

**x. Occupational Risk Management**

The Ape TAG will consider the need for long-term study of occupational injury and illness for ape caretakers, and for a survey of institutional occupational health policies.

## **2. Guidelines/Policies/Statements**

### **ii. Surplus Animal Guidelines**

Every individual ape in the ape SSP populations plays an important role in our missions of genetically and demographically healthy captive populations, conservation, research, education and individual animal welfare. However, in support of the global management and conservation of ape species as well as welfare concerns for individual animals, the Ape TAG may consider individual apes as ‘surplus’ to the North American (or globally) managed population. Each SSP is required to have their own surplus policy but general guidelines from the TAG are that individuals are to be considered surplus only if their movement outside the NA population:

- 1) has no negative effect on the genetic and demographic health of the SSP or SSP/EEP population; AND
- 2) positively contributes to the genetic or demographic health of the receiving population; AND
- 3) maintains or improves the welfare of the individual animals involved.

If an individual SSP has surplus guidelines that are more stringent than those of the TAG, the TAG fully supports the guidelines of the SSP.

If the stated guidelines of the SSP allow for the movement of animals outside of the SSP population, any such moves must be reviewed and approved by both the appropriate SSP Management Group and the TAG Steering Committee. The Ape TAG will review all proposed moves of individuals out of an SSP (or SSP/EEP population if the species is so managed) population to:

- 1) assess the degree to which such transactions promote the genetic and demographic health of the SSP and recipient populations;
- 2) ensure that the welfare of the individuals involved is maintained or improved;
- 3) ensure that recipient institution, regardless of geographic location, meets all standards for housing, management, welfare and presentation that pertain to SSP institutions, and meet the specific Ape TAG guidelines for the disposition of apes to non-SSP institutions. Specifically, the Ape TAG will recommend that individuals that are surplus population be moved out of SSP institutions only when the recipient institution conforms to the following requirements:
  - a. is licensed and regularly inspected by the United States Department of Agriculture or, if outside of the United States, by an appropriate governmental agency;
  - b. is able to provide professional daily care by qualified caretakers, and adequate and timely veterinary care;
  - c. demonstrates an organizational commitment to conservation, education, appropriate captive management programs, and science;
  - d. ensures a long-term commitment to the care and welfare of such individuals, which can live for more than 50 years;
  - e. is able to maintain the animal(s) within acceptable well-managed facilities, in appropriate social groupings; and
  - f. adheres to all regulations of C.I.T.E.S., the U.S. Fish and Wildlife Service, and other relevant regulatory agencies.

The Ape TAG and SSPs will cooperate with biomedical organizations through supporting research that promotes the health and quality of life of apes and by sharing information. The Ape TAG and SSPs will not provide animals for biomedical research.

Neither the Ape TAG nor the SSPs will approve sending animals to institutions whose primary mission is entertainment, which routinely engage in aversive control, which display apes in clothing, or otherwise misrepresent or degrade apes.

*-adopted by the Steering Committee  
May 2007*

## **ii. Rearing Guidelines**

The Ape TAG supports protected contact and advocates the mother rearing of apes.

*-adopted by the Steering Committee  
September 2006*

In support of the above statement, the following procedures have been put into place:  
The Ape TAG via the Birth Management/Hand Rearing Subcommittee will work with the SSPs and individual institutions to minimize the occurrence of hand rearing and facilitate prompt reintegration of hand-reared individuals into species-appropriate groups. This will include developing a surrogacy network to facilitate integration when feasible options at the home institution do not exist and establishing a target age for reintroduction. All institutions are expected to contact the appropriate SSP coordinator as soon as a female is determined to be pregnant. Institutions will then be put in contact with the Ape TAG Birth Management/Handrearing Subcommittee for assistance with birth planning and training (if deemed necessary). Additionally, each SSP coordinator is expected to provide the Ape TAG Birth Management/Hand Rearing Subcommittee with a yearly list of recommended breedings based on their masterplan.

## **iii. Protected Contact Guidelines**

The Ape TAG recommends, with rare exception, protected contact with great apes. Rare exceptions may include such things as medical management (with input from veterinary advisors of the SSP and TAG) and handrearing (with input from the Ape TAG Birth Management/Handrearing subcommittee).

*-adopted by the Steering Committee  
September 2006*

## **iv. Statement Opposing the Use of Performing Apes**

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 make them popular in commercial entertainment, as performers in entertainment and advertising programs, and as photographic props. But this popularity and attractiveness mask a number of cruel and dangerous practices frequently used to make the apes compliant with their handlers.

This statement presents a summary of the justification for:

- opposing the use of apes primarily for entertainment, the use of performing apes, and the use of apes as photographic props
- establishing and adhering to standards that ensure that exhibits and interpretive programs accurately portray the biology and conservation status of apes

- eliminating the use of apes primarily for entertainment, as performers and as photographic props.

### Rationale

1. Ape infants normally remain with their mothers for several years in a social environment where they learn social skills important for development of normal adult behavior. But apes destined to be entertainers, performers or photographic props are usually removed from their mothers shortly after birth and are denied opportunities for normal social and psychological development. This has several advantages to the owner. The infant will be appealing and will remain handleable 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 doomed to social and sexual isolation in which many become depressed and develop self-mutilating and other abnormal behaviors. They usually are not able to contribute to conservation-based breeding programs. The mothers experience repeated stress at the taking of their infants.

2. Although adorable as infants, apes become dangerous and unpredictable to handle as they near adulthood. Their continued use as performers, entertainers or props becomes dangerous to both their handlers and audiences. To maintain control, their handlers may beat or electrically shock the apes, remove their teeth, administer continuous tranquilization, and/or deprive them of food for long periods before appearances. Because of their unpredictability, the apes are normally confined alone, in small (easily transportable) cages. These apes often experience prolonged fear ("the "smile" of a performing chimpanzee is actually a well-documented expression of fear), pain, hunger and isolation. The physical and psychological effects are difficult to cure even when the ape is rescued and placed in a caring environment. More often however, when apes become too difficult to handle, they lose their commercial value as entertainers or props, and are re-sold into other inexpert and 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 may undermine conservation efforts. Audiences might also be misled into thinking that apes may make good pets.

4. Because apes and humans are genetically so similar, both are susceptible to many of the same communicable diseases. The close and unprotected contact between performing apes, their handlers and audiences poses a threat to all of infection with viruses, bacteria and parasites. The probability of undiagnosed disease in performing apes is increased since their owners frequently do not consult skilled primate veterinarians, and the apes are often kept in unhygienic conditions.

5. The use of performing apes may stimulate profit-based trade in apes. This can involve selling and buying ex-performing apes as pets, and hunting and poaching wild apes. Selling and buying apes also weakens international commitment to their conservation.

Apes kept in appropriate physical and social environments in zoos, apes participating in humane, scientific behavioral and cognitive research, apes contacted in responsibly-managed ecotourism programs, and apes portrayed in science-based documentary presentations may entertain, generate profit, or advertise, while serving educational, research and conservation goals. While not opposed to such activities, any exploitation of apes that for reasons noted above diminishes their physical or psychological well-being, portrays them as human caricatures or otherwise denigrates them, weakens conservation efforts, or endangers humans, is objectionable and should not be permitted.

--readopted by the Steering Committee September 2007

#### **v. Statement Opposing Primates as Pets**

#### **THE AZA PRIMATE ADVISORY GROUPS' PRIMATE PET TRADE POSITION STATEMENT**

There is an active trade in pet primates in many areas of the U.S, where it is still possible to buy primates in pet stores, from private breeders and through animal dealers. The four primate advisory groups of AZA, the Prosimian TAG, the New World Primate TAG, the Old World Monkey TAG, and the Ape TAG, support the elimination of the trade in pet primates for the following reasons:

- 1) Pet primates pose a risk to public health and safety through communicable illness/diseases such as Herpes B, hepatitis, intestinal pathogens and injuries sustained during sudden and unpredictable episodes of aggressive behavior.
- 2) Elimination of the legal trade in pet primates aids enforcement of federal legislation that prohibits private ownership of those nonhuman primates regulated by the Centers for Disease Control ([Code of Federal Regulations](#) Subchapter F - Quarantine, Inspection, Licensing Part 71 Foreign Quarantine).
- 3) Pet primates are often maintained in inadequate housing and without consideration for their social and psychological needs.
- 4) There is an adverse impact on wild populations through the smuggling and import of primates which ultimately end up in the pet trade.
- 5) Pet primates are unable to contribute genetically to those conservation programs in which they are needed due to their isolation from the managed population and also in many cases to serious deficits in their social skills related to their rearing and maintenance in isolation from others of their kind.

It is the consensus of AZA's primate advisory groups that education about primates and legislation to restrict the trade in primates as pets are likely to be the most effective means of curbing the trade in pet primates, and the following actions will be necessary for AZA institutions to effect an impact on the trade:

- 1) manage zoo collections to eliminate the sale, trade or other disposition of zoo

- primates to individuals, or to animal dealers known to place primates with individuals;
- 2) recruit educators to develop and produce materials for zoo visitors and potential primate buyers;
  - 3) align with other groups (including the American Society of Primatologists, animal advocacy groups where appropriate, and local municipal and legislative bodies) to influence and enact the legislation needed to restrict the trade in pet primates;
  - 4) investigate existing regulations in place in the U.S. (state by state) relating to privately-owned primates.

*--readopted by the Steering Committee September 2007*

#### **D. Program Review**

Looking at the specific level, a total of 8 SSP and 4 DERP programs are recommended in the RCP. However, the two orangutan species are managed as a single SSP and studbook (so 7 SSPs in total). Currently, all of the SSPs that have been operating for the last three years are current on their masterplans and studbooks (R. Penrod, personal communication May 2007). This includes: western gorilla, chimpanzee, bonobo, orangutan, Lar (white-handed) gibbon, white-cheeked gibbon, and siamang.

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**Mootnick. A., Groves, C.P.**, (2005) A New Generic Name For the Hoolock Gibbon (Hylobatidae). International Journal of Primatology, Vol. 26, No. 4: 971-976

**U.S. Fish & Wildlife Service.** <[http://ecos.fws.gov/species\\_profile](http://ecos.fws.gov/species_profile)> [2000, May 26].

## **Appendix I: Action Plan for Ape TAG (based on January 2005 mid year meeting; see also sections I.A.2 and III.C.2 )**

Below are the various subcommittees and their champions. Champions are expected to pull together a team (from both inside and outside the TAG) to work on the subcommittee topic, develop a 3-year action plan to be approved by the TAG, and implement the action plan. They are NOT expected to do all the work but rather develop the framework for the subcommittee and ensure that activities are moving forward. They will also be responsible for reporting back to the TAG on the subcommittee's progress.

Being the champion of one area should not preclude you from working in another. For accountability purposes I wanted to have only one to two individuals listed as a champions. But many of you expressed interest in a number of areas so I encourage you to work in as many areas as you would like.

### **Subcommittees and Champions**

1. In situ conservation: Tara Stoinski
2. Hand rearing: Dusty Lombardi
3. Research: Kristen Lukas
4. Education: Sue Margulis
5. Biomaterials: Todd Bowsher
6. Captive management/welfare: Dwight Scott
  - a. Standardized guidelines: John Davis
  - b. Apes in entertainment: Rob Shumaker
  - c. Training: Hollie Colahan

### **Activities**

1. Recruit individuals from within and outside Ape TAG to participate in action plan items
2. Develop 3-year action plan with specific action items for each year and circulate to TAG for approval. Action plans should include overall statement of purpose for the subcommittee as well as specific action items with individual champions if appropriate, deliverables, time frame, resources needed.
3. Implement activities
4. Report accomplishments on yearly basis at AZA meetings during open Ape TAG session

### **List of Action Items for Subcommittees**

Note: This is not meant to be a comprehensive list but rather a starting point based on things that have already been discussed.

#### *In Situ Conservation: (Tara Stoinski)*

1. Refine TAG mission statement with respect to in situ conservation
2. Build alliance with IUCN PSG Section for Great Apes
3. Assemble action plan for collective program of zoo support of in situ ape conservation
4. Assemble list of zoos with small grant projects for ape conservation
5. Develop standardized application for small grants project
6. Develop list of priority projects for CEF funding
7. Advertise CEF funds, small grants programs on primate list servs
8. Develop mechanism for increasing zoo support of sanctuaries

9. Develop database of zoo support of in situ conservation

Birth Management/Hand Rearing: (Dusty Lombardi)

1. Develop and distribute hand rearing guidelines for all taxonomic groups
2. Develop husbandry and training guidelines for pregnant and or surrogate females
3. Develop a Surrogacy Program (which includes making a list of current and potential surrogates and zoos that have experience in such a program as well as training surrogates and babies).
4. Develop training program for institutions where hand rearing is a potential concern (e.g. little/no birth experience, primiparous mother who was hand reared, multiparous mother who has repeatedly rejected infants)
5. Establish a traveling team of consultants
6. Hold a Hand Rearing/ Great Ape Surrogacy Program Workshop in Columbus Ohio in 2007

Research: (Kristen Lukas)

1. Develop list of priority projects (hand rearing, ape 'impact' assessment, bicultural rearing/free contact) and identify individuals to implement
2. Develop review process for projects wanting Ape TAG support (committee, process)
3. Organize symposium at relevant conferences to highlight ape research in zoo setting

Education: (Sue Margulis, Advisor: Needed)

1. Website: See action items from January TAG meeting
  - a. Solicit feedback from AZA institutions
  - b. Develop plan of what content of web site should include; update and correct relevant current content on website using SSP coordinators (potential link to Wisconsin site)
  - c. Get necessary attachments from other subcommittees as well as links to relevant sites
2. Work with research subcommittee to identify priority education research projects

Biomaterials: (Todd Bowsher, Pathology Advisor: Linda Lowenstein, Biomaterials Advisor: Cathi Lehn; Veterinary Advisor: Pam Dennis)

1. Develop biomaterials form and review process for projects wanting Ape TAG support
2. Develop and maintain list of standing biomaterials requests and mechanism for ensuring samples are collected upon the death of an ape
3. Liaison with the AZA biobanking and veterinary committees of AZA
4. Work with veterinary SAG to get standardized necropsy forms for apes available on line (TAG web site as well as veterinary SAG site)

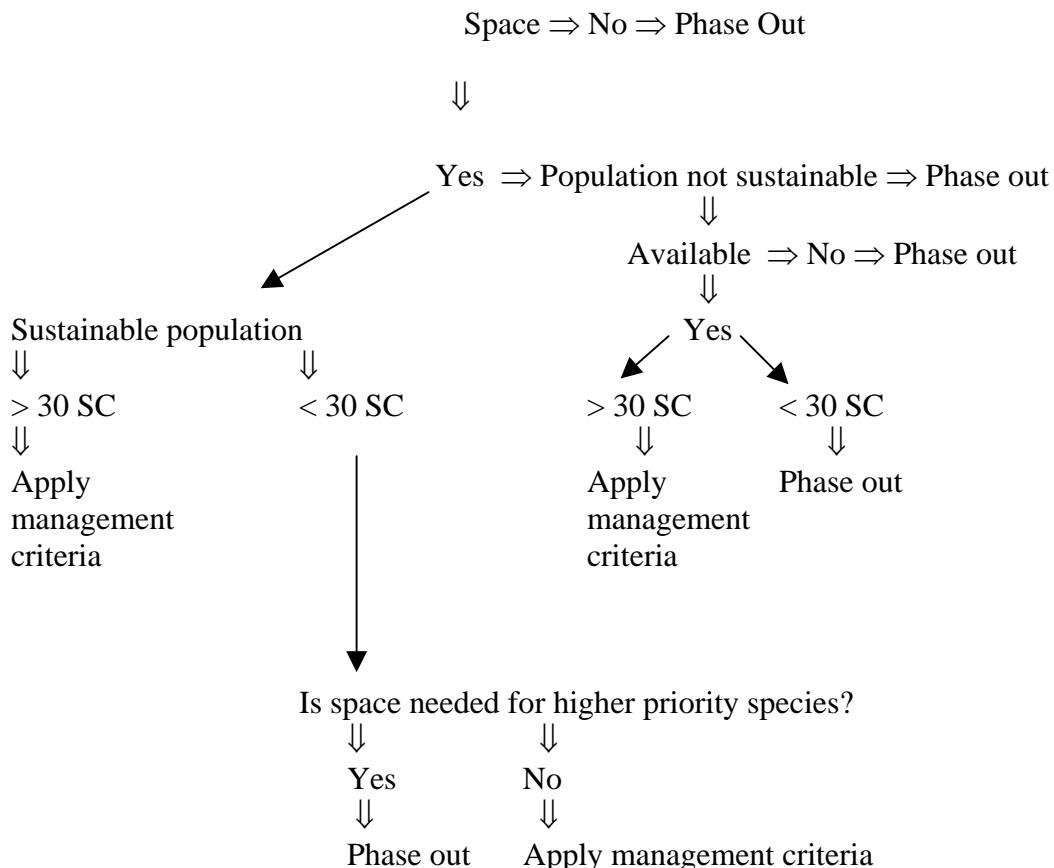
Captive Management: (Dwight Scott, Hollie Colahan, John Davis, Jan Rafert, Dusty Lombardi; Advisor: Joseph Barber)

1. Standardized guidelines (Dwight Scott)
  - a. Work with AZA to complete standardized guidelines
    - i. Distribute the DRAFT document to the TAG steering committee for review
    - ii. Distribute the second DRAFT resulting from the SC review to the AZA member institutions for review.
    - iii. Post on the AZA website for 60 days for comment

- iv. Send to the AZA Animal Welfare Committee for review.
    - v. Send to AZA Board for review and approval.
    - vi. Institute an automatic 5 year review process.
  - b. Work with TAG Research Subcommittee to develop research questions to fill knowledge gaps, and integrate research projects and proposals into ongoing three year action plans.
  - c. Adopt standardized guidelines into more specific and detailed management guidelines specific to behavior, rearing, birth management, training, social groupings, etc
2. Entertainment (Rob Shumaker; Advisor: Joseph Barber)
- a. Assemble reference materials on uses of apes in entertainment domestically and internationally
  - b. Develop sensitization plan to educate AZA/AZA members about the use of apes in entertainment
  - c. Work with AZA to ensure proper portrayal of apes in AZA materials
  - d. Coordinate efforts with other relevant TAGs (other primate TAGs, felid TAG, bear TAG)
3. Training (Hollie Colahan)
- a. Work with other relevant subcommittees (standardized guidelines, hand rearing) to develop appropriate training protocols
  - b. Develop catalogue of training tools (sample devices, videos, manuals, etc) for institutions interested in training
  - c. Consider development of training/husbandry conferences for keeper staff

**APPENDIX II: Decision tree for application of selection criteria and selection criteria values**

**SPECIES CURRENTLY IN NORTH AMERICAN COLLECTION**  
 (See page 10 for selection criteria: SC < > 30 means that species scored less or greater than 30 on selection criteria as described on page 10)



**SPECIES NOT CURRENTLY IN NORTH AMERICAN COLLECTION**  
 (see page 10 for selection criteria)

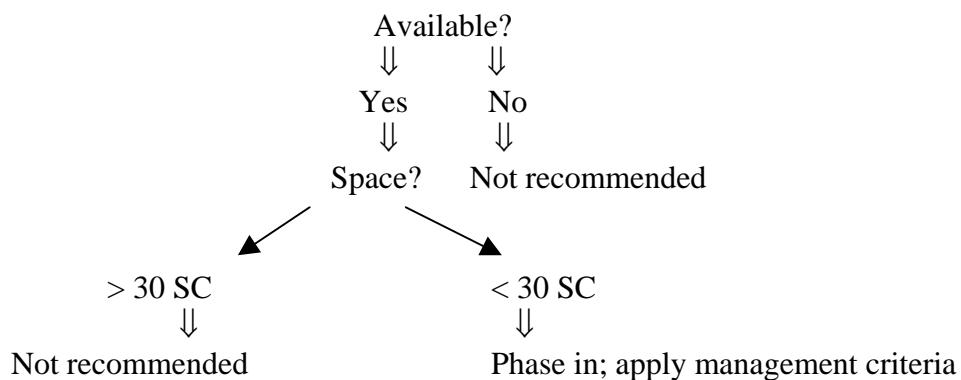


Table IIa: Selection criteria scores for ape species (see page 10 for description)

Common name	Scientific name	Selection Criteria Score
Chimpanzee	<i>Pan troglodytes</i>	47.5
Sumatran orangutan	<i>Pongo abelii</i>	46.5
Western gorilla	<i>Gorilla gorilla</i>	45.5
Bornean orangutan	<i>Pongo pygmaeus</i>	45.5
Bonobo	<i>Pan paniscus</i>	44.5
Northern white-cheeked gibbon	<i>Nomascus leucogenys</i>	44
Siamang	<i>Sympalangus syndactylus</i>	43
Lar gibbon	<i>Hylobates lar</i>	41
Javan gibbon	<i>Hylobates moloch</i>	33.5
Pileated gibbon	<i>Hylobates pileatus</i>	32.5
Hoolock gibbon	<i>Hoolock hoolock</i>	31.5
Yellow-cheeked gibbon	<i>Nomascus gabriellae</i>	30.5
Agile gibbon	<i>Hylobates agilis</i>	27.5
Eastern gorilla	<i>Gorilla beringei</i>	26
Mueller's gibbon	<i>Hylobates muelleri</i>	25.5
Black crested gibbon	<i>Nomascus concolor</i>	25
Hainan gibbon	<i>Nomascus hainanus</i>	25
White-bearded gibbon	<i>Hylobates albifrons</i>	23
Kloss gibbon	<i>Hylobates klossii</i>	23

Table IIb. Program Assignment based on Management Criteria

	Av In	Av* Out	ER w/o	ER w	D	IC	Br	ER wld	Ac cost	Op cost	Con Prg	Lnk	Gov Prg	Prg
Chimpanzee	H	L	L	↓	H	H	M	H	H	H	Y	D	Y	SSP
Sumatran orangutan	H	L	L	↓	H	H	M	H	H	H	Y	D	Y	SSP
Western gorilla	H	L	L	↓	H	H	M	H	H	H	Y	D	Y	SSP
Bornean orangutan	H	L	L	↓	H	H	M	H	H	H	Y	D	Y	SSP
Bonobo	M	L	M	↓	H	H	M	H	H	H	Y	D	Y	SSP
Northern white-cheeked gibbon	H	L	L	↓	H	H	L	H	H	H	Y	D	Y	SSP
Siamang	H	L	L	↓	H	H	L	H	H	H	Y	D	Y	SSP
Lar gibbon	H	L	L	↓	H	H	L	H	H	H	Y	D	Y	SSP
Javan gibbon	E	L	H/E	↓	L	H	L	H	H	H	Y	D	Y	DERP
Pileated gibbon	E	L	H/E	↓	L	H	L	H	H	H	Y	D	Y	DERP
Hoolock gibbon	E	L	H/E	↓	L	H	L	H	H	H	Y	D	Y	DERP
Yellow-cheeked gibbon	E	L	H/E	↓	L	H	L	H	H	H	Y	D	Y	DERP

\*Criteria in bold were given additional weight

\*\* Values in red match those listed in the RCP Handbook the for the assigned management program

Av In: Availability within AZA

Av Out: Availability outside AZA

ER w/o: Extinction risk without management

ER w: Extinction risk with management

D: Demand

IC: Institutional commitment

Br: Breed

ER wld: Extinction risk in the wild

Ac cost: Acquisition cost

Op cost: Program operation costs

Con Prg: National and international conservation programs

Lnk: Link to conservation programs in the wild

Gov Prg: North American governmental conservation program