

## **So, You Want to Be a Zoo Keeper, Trainer, or an Aquarist?**

For those that enjoy being around animals and have a drive to make a difference, a career in a zoo may be just for you. But, do you have what it takes?

Keeping in mind that this field is very competitive and to help you make that decision, here are some things to do...

- ❖ Intern at a zoo or an aquarium
  - Can be three months or more at some institutions
  - Very valuable in understanding the field
  - Normally unpaid positions
  - Normally work 40 hours per week, including weekends
  - Interns are frequently hired for permanent positions
  
- ❖ Volunteer at a zoo or an aquarium
  - Most schedules are flexible
  - Can volunteer on a set schedule: weekly, biweekly, monthly
  - Can volunteer for just special events: pregnancy watch, medical watch, animal introduction watch just to name a few
  - Volunteer for special activities: SCUBA diving, camps, etc.
  
- ❖ Get SCUBA certified (open water)
  - If you already have this certification when applying for an aquarist position, you will have an advantage over the other applicants who are not certified
  - Some aquariums may pay for you to get this certification
  - Must feel comfortable underwater and be aware of your surroundings
  - Depending on insurance of the aquarium, you may be required to get a dive physical every couple of years and go through a check-out dive
    - Check-out dives include: setting up tank successfully, clearing mask, clearing regulator and following radio/safety procedures correctly
  
- ❖ Obtain CPR/First Aid certification
  - This is mandatory if you are SCUBA certified
  
- ❖ Become familiar with Microsoft Word<sup>®</sup>, Microsoft Excel<sup>®</sup>, and Powerpoint<sup>®</sup>,

- ❖ Understand that the job is not glamorous...you will get dirty!
- ❖ Understand that the job involves a lot of strength, flexibility and stamina
  - Most cases, must be able to lift 50#
  - Must be willing to work variable shifts, weekends and holidays
  - Understand that animals can be stubborn, so having a high level of energy and determination is extremely valuable
  - Although this is a very rewarding career, understand that it normally doesn't pay as well as other professions where a college degree is desirable.
  - Pay is based on experience
  - Pay is also based on cost of living for zoo's geographic area
- ❖ Obtain a college degree in a biology related field
  - Math and science are very important in this field
  - The best form of communication is written communication
    - You must be able to write clearly when entering data in the daily logs
    - Having some public speaking experience also helps in your interactions with the visiting public.

### A Keeper's Day...

- ❖ Animal Husbandry
  - Exhibit maintenance
    - Scrubbing, cleaning, fixing anything that's broken
  - Diet prep
    - Weighing out food items, adding vitamins
  - Animal observations
    - Ensuring the animals are well cared for
    - Introducing species
    - Research observations, etc
  - Training/Enrichment
    - Keeping schedules of enrichment
    - Keeping training schedules
    - Training new behaviors
    - Having patience and flexibility when providing these opportunities
  - Administering health care under the supervision of a veterinarian
- ❖ Writing protocols and proposals
- ❖ Networking with zoos and aquariums around the world
- ❖ Understand that safety is **#1**

- ❖ Becoming involved in research projects...maybe even pioneering one
- ❖ Public speaking
  - Keeper chats
  - Behind-the-scene tours
  - Presentations to a wide variety of audiences
- ❖ Realize that if an animal is sick, you are technically on call 24/7

### **Highlights of some documented interviews by keepers...**

- ❖ Staff meetings can occur in the mornings or once a week
- ❖ If you're low man on the totem pole, you will work weekends. Your days off will probably be two days during the normal work week.
- ❖ The love of the job is the diversity!
- ❖ You have to be physically strong
- ❖ You're not going to make a lot of money.
- ❖ You must be able to work in the pouring rain and freezing snow!
- ❖ Daily routines include feeding animals, cleaning exhibits, written and verbal communication, animal observations and maintenance upkeep on exhibits.
- ❖ You never realize how much you love working with animals until you start working with animals!
- ❖ To be a good zoo keeper, you have to have common sense and good animal sense. You must be able to know when an animal is just not right.
- ❖ There are dangers working with every animal.
- ❖ During your day, you will educate so many people about animals and conservation...you are a teacher.
- ❖ Zoo keeping is a lot of hard work.

### **Growing within your career, become involved in...**

- ❖ Committees within your zoo
  - Fun teams
  - Shooting teams
  - Grants committees
  - Training and enrichment committees, just to name a few
- ❖ Taxon Advisory Groups
- ❖ AAZK (American Association of Zoo Keepers)
- ❖ AZA (Association of Zoos and Aquariums)
- ❖ EMA (Elephant Managers Association)
- ❖ ABMA (Animal Behavior Management Alliance)

- ❖ IMATA (International Marine Animal Trainers Association)
- ❖ Attend conferences
- ❖ Attend AZA classes
- ❖ Become involved in any other zoo or animal organization not listed. There are several.

### **What's the best route to take in climbing the ladder?**

The best place to start is to volunteer and/or intern. There is no rule that says you have to start here, but some zoos will hire their interns and volunteers first before hiring somebody they don't know. When someone starts out in this field, they are a keeper/aquarist/trainer. Depending on the zoo and aquarium, your title may be Keeper I or Assistant Aquarist. After a couple of years in this position, you may be eligible to move up to a Keeper II or Aquarist position. You can then keep working your way up to Senior Keeper/Trainer/Aquarist. As you continue to climb your way up, you will be challenged with more responsibility and may even take on some supervisory duties.

As you continue on your journey and have a drive to enter management and more of a desk job, there are many avenues you may take. These range from area manager to curator to director and all the opportunities in-between, including veterinarian care.

But, then there may come a time where you feel the need to move away from animal care, but still want to work within a zoo or an aquarium. Again, the opportunities are endless.

They include, but not limited to:

- ❖ Horticulture
  - ❖ Education
  - ❖ Marketing
  - ❖ Public Relations
  - ❖ Graphics
  - ❖ Membership
  - ❖ Human Resources
  - ❖ Gift Shops
  - ❖ Catering
  - ❖ Volunteer Coordinator
  - ❖ Commissary/Warehouse
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Although we have provided you with many ideas of what it takes to become zoo keeper/trainer/aquarist, you still may find the need to contact someone else for more information. The helpful addresses below are good resources to get your questions answered.

**Helpful Addresses:**

***American Association of Zoo Keepers, INC***

Animal Keepers' Forum  
3601 S.W. 29<sup>th</sup> St., Suite 133  
Topeka, KS 66614  
785-273-9149  
Fax: 785-273-1980  
<http://www.aazk.org>

***American Zoo & Aquarium Association***

8403 Colesville Rd., Suite 710  
Silver Springs, MD 20910-3314  
301-562-0777  
Fax: 301-562-0888  
<http://www.aza.org>

***The Student Conservation Association, INC***

P.O. Box 550  
Charleston, NH 03603  
603-543-1700  
Fax: 603-543-1828  
[www.thesca.org](http://www.thesca.org)

**Looking for that perfect college? Then check these out....**

**Animal Behavior Institute, Inc**

2625 McDowell Rd.  
Durham, NC 27705  
866-755-0448  
[www.animaledu.com/index.htm](http://www.animaledu.com/index.htm)

**Friends University**

2100 University  
Wichita, KS 67213  
(316)295-5000  
800-794-6945  
<http://www.friends.edu/>

**Jefferson Community College**

Laboratory Sciences Department

1220 Coffeen St.

Watertown, NY 13601

888-435-6522

[www.sunyjefferson.edu/](http://www.sunyjefferson.edu/)

***Moorpark College***

7075 Campus Road

Moorpark, CA 93021

(805)378-1400

[www.moorparkcollege.edu](http://www.moorparkcollege.edu)

***Niagara County Community College***

3111 Sauders Settlement Road

Sanborn, NY 14132-9460

(716)614-6222

[www.niagaracc.sunny.edu/](http://www.niagaracc.sunny.edu/)

**Oregon Coast Community College**

332 SW Coast Highway

Newport, OR 97365

(541)265-2283

[www.occc.cc.or.us/aquarium/](http://www.occc.cc.or.us/aquarium/)

***Pensacola Junior College***

1000 College Boulevard

Pensacola, FL 32504-8998

(850)484-1000

<http://pjc.edu>

***Pikes Peak Community College***

5675 South Academy Blvd

Colorado Springs, CO 80906

800-456-6847

719-502-2000

[www.ppcc.ccco.es.edu](http://www.ppcc.ccco.es.edu)

***Santa Fe Community College***

Zoo Animal Technology Program

3000 NW 83 Street

Gainesville, FL 32606

(352)395-5000  
[www.sfcc.edu/zoo/](http://www.sfcc.edu/zoo/)

### **Still hungry for more information?**

Check out [www.arkanimals.com](http://www.arkanimals.com) for a listing of books that provide good information on careers working with animals.

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**Below is an article that was written by Judie Steenberg that gives you a better idea of what being a zoo keeper is all about...**

#### ***Zoo Keeping – the hardest job I’ve ever loved***

*By Judie Steenberg, Retired Zoo Keeper,  
Advisor – Tree Kangaroo SSP®  
Maplewood, MN*

#### **Introduction**

When asked to present this Keynote Address at the AAZK National Conference, the first question was what to call it. In 1995, I presented a paper titled: *Then and Now – 20 years of Zoo Keeping*. Most of what follows is from that paper which has been updated to include changes in the profession over the last ten years.

During my Zoo Keeping career I worked at four different zoological facilities and volunteered at yet a fifth zoo. I’ve visited over 70 zoos and have been in contact with Keepers from zoos around the world. Whenever I give an example during this presentation it is intended to be “generic” and not to be identified with a specific institution.

***Zoo Keeping – the hardest job I’ve ever loved*** is how I have always felt about the work of zoo keeping.

- *Physically*: a Keeper must stay fit for the job. It requires strength, flexibility and stamina. A keeper should be ready to do whatever is needed, whenever it’s needed. Gender and size need not be an issue. I’ve worked with very strong small Keepers and some seemingly-strong large Keepers, who were not strong
- *Intellectually*: Keepers must

- Be interested in, and learn about the past and the lessons to be learned from the mistakes and success of our forebearers.
- *Be up-to-date* on current practices and husbandry protocols
- *Be working with a plan for the future of all of the animals in their care.*
- *Emotionally:* a Keeper must not let emotions rule in communications and husbandry practices; being objective can be one of the hardest parts of the job.

These are everyday expectations and often challenges, but it's all worth it.

You might not like, or agree, with some of what follows: Keepers in general can be opinionated, and I'm certainly no exception.

There is a Zoo Keeper's affliction which I call "**C-N-S**" that I've personally experienced and have seen in some of my co-Keepers wherever I've worked. "**C-N-S**" stands for **C**riticism, **N**egativism and **S**kepticism and it can really get in the way of being an effective Keeper. The more you learn to minimize these attitudes, the more successful you will be as a Keeper. These tendencies might never really go away, but the harder you can work at them the better you will become at managing these inclinations.

There is another condition, which I call "**P-M-S**", which applies to both genders: **P**iss and **M**oan **S**yndrome. This can be very contagious and is a waste of time and energy. If something is really wrong and needs fixing and/or changing - what can YOU do about it, to improve or remedy the problem?

Two major causes of both of these problems can be: under-staffing and low morale. You might have to work hard at overcoming these obstacles, but if you can you'll be a better Keeper and more successful at being an advocate for the animals in your care.

### **On the way to NOW**

After five years as a Docent in a small, city-operated Midwest zoo, I became a Zoo Keeper. Actually, I didn't like or approve of zoos back in the 70s, and became a Keeper because I've always felt the best way to change something is to get directly involved. My first job as a Keeper was at another small, city-operated zoo, and I quickly learned one of the most valuable lessons a Keeper must

learn.

**All animals are important.....no animal is insignificant.  
They all deserve the best care we can give them.**

I became a Keeper in 1975, and during the three decades since there have been many significant improvements in zoo animal care and welfare, in exhibitry, health, nutrition and record keeping. In 1975, most zoos did not have a Zoo Vet, much less an Animal Health Department. Nutrition was beginning to take on importance in zoo animal health. However, one zoo I worked at fed "Dunkin' Donuts" and road kills throughout the zoo. Record keeping was on index cards, or in Keepers' notebooks.

My "dream", when I became a Keeper, was to eventually care for tigers, and I got lucky! During my first year as a Keeper I was assigned as a Relief Keeper on the cat/bear string. And, yes, taking care of the tigers was special....but so were the fruit bats, Arctic fox, elephants, llamas, kudu, Andean condors and all sorts of birds, mammals and reptiles. There was an unforgettable pair of white bearded gnu and a special family of golden eagles.

As a Relief Keeper, I trained on seven out of eight routines and had the wonderful experience of learning about diversity in the animal kingdom. Almost all of the Keepers I worked with shared their excitement and knowledge about their special animals and gave me insight and a deep sense of appreciation of animals as a species, as individuals within a species, or as a small family group. It was also my first experience with OJT (on-the-job) Keeper training. It was, one-day watching, one day helping and one-day doing before you were on your own.

I had become a Keeper so I could make a difference...sound familiar? Again, I got lucky and had an opportunity to work with some very dedicated people and became part of the team that worked with a breeding pair of golden eagles. That year TWO chicks were successfully parent-reared, instead of the usual one chick.

The first year of zoo keeping was a year of enlightenment; *many things were not as they seemed before getting involved at the Keeper level...*some things were better, some things worse than what I had perceived the work would be like. As a rookie Keeper I got into trouble for taking notes on the animals throughout the day; one of the

supervisors thought I was keeping book on him and we ended up in the Director's office!

Unfortunately, not all Keepers realized that one of the most important parts of our job is to share experience and knowledge with those who will follow us. There is one conversation that I'll never forget. When I asked a veteran Keeper for information I was told it was "...a professional secret". Wow! Is that a contradiction or what! In zoo keeping there is nothing professional about keeping secrets. A few other "old-timers" simply said they had learned the hard way and I could too! Sadly, the very animals we are responsible for sometimes pay the price when rookie Keepers have to reinvent the wheel. A true professional Keeper is knowledgeable and knows the importance of sharing that knowledge for the benefit of all concerned. Unfortunately, 20 years later I still heard the comment "...learn it the hard way...". Is that still the case at your Zoo?

### **Communication**

The Rookie Keeper - I learned early on just how very important one basic component of zoo keeping was going to be – *communication*. A Keeper is the first person to begin to interpret the needs of the animals in his or her care. How well we, as individuals, relay this information on the needs of the animals is basically what zoo keeping is all about....we are the voice of the animals. How well we communicate and interact with our co-workers and the administration is directly related to our effectiveness as Keepers. We also have a responsibility to share failure as well as success with those who will follow in our footsteps. How well one communicates and shares information in their position as a Keeper is essential to how effective they will be on the job.

As a new "gung-ho" rookie Keeper, I soon became aware of the importance of note-taking and not relying on memory. One of the first Keepers I worked with suggested carrying a note pad and pen...preferably a brightly colored pen that could be easily seen and therefore retrieved if accidentally dropped in an animal area...to that I would add KEEP THE PEN IN AN INSIDE POCKET. I lost a bright orange pen in the gnu yard and found it quite sometime later....way out in the exhibit yard, well chewed. My heart sank when I thought of what that pen could have done to a ruminant stomach if swallowed.

Throughout my career, I carried a pen and notebook. Hardly a day went by that something wasn't noted to add to the Keeper's Daybook, the daily report or for future reference. "Nothing happened today..." is

hard for me to imagine. Another veteran Keeper once told me that if you fail to see something, it's because you're not paying attention! Granted, every day is not going to yield an inspiring situation or insight. However, often a seemingly insignificant behavior or event can fit into the bigger picture.

Time spent, after normal work hours, just observing the animals often gave me insight into what was normal for a particular animal, or led me to a better understanding of group dynamics.

Other Departments and the Kiddies' Zoo - The benefits of having a commissary, maintenance and horticulture departments, as well as animal health and quarantine facilities became quite apparent at yet another zoo. I've always felt that as Keepers we need the support of other departments to do our jobs effectively. Primarily, the animals are the focus, the Keeper is the caretaker/interpreter and the rest of the zoo departments are the support staff for the animals in the zoo. We need each other and need to work together for the benefit of the animals...the animals do not have choices, only people do. We can choose to work with people, to benefit the animals, or not!

How well Keepers interact with various departments can directly affect how well we can care for the animals. Having the right food, tools and supplies from the commissary, the assistance from maintenance to keep the physical plant operational and safe, the help from horticulture to enhance and enrich the exhibits and zoo grounds, the messages and lessons put forth by the education department and the aid of the animal health staff to prevent disease and treat sick or injured animals are all important parts of a zoo's operation. Don't get me wrong; everything is not always sunshine and roses and not everyone always works together effectively....it's a matter of communication, and it requires continuous effort to achieve.

Not having to unload a trailer full of hay bales, to fixing broken gates and equipment, or cleaning the public toilets (*yes we did that*), to having plants delivered and planted, and especially having animal health staff available to provide support were greatly valued. Appreciate what you have; some zoos still do not have these support systems. Keepers at those facilities still have to do many tasks that detract from animal care. By having these various departments available, a Keeper can concentrate on the daily care of the animals.

The interactions between Keepers and each of these departments depends a great deal on effective communication (there's that word again)...and, as already stated, it is not always easy. Obstacles

that you will need to deal with include: personality clashes, territorialism, lack of respect or appreciation for each other's position and work, and some people just not doing their jobs. But, it's worth the effort to develop cooperative working relationships....consider the alternative. It helps to keep the objective of animal care and welfare in the forefront. Recent articles in Animal Keepers' Forum give advice and techniques on working with various personalities, which should be helpful. (*Editor's Note: See People Skills for Animal People, February and April 2006 issues.*)

Until I actually worked in a Children's Zoo I saw no value in having a "Kiddies' Zoo" and really believed that the space and money spent on such an attraction would be better used elsewhere. However, I now believe the best way for a child to learn about and appreciate living animals is through "touching" a rabbit, a goat, a chicken or other domestic animal in a *controlled* situation.

While I have long believed that using exotic animals in "shows" had the effect of diminishing that healthy "mystique" we have about wild animals, and I still do, my understanding of the importance of children coming in contact with domestic animals was changed. It is an opportunity for children to learn gentleness and respect for the animals, under the guidance of volunteers or their parents. This is a life lesson that could benefit all concerned; a lesson that cannot be communicated as effectively through any other method.

Educating the public is part of our job, whether we like it or not....whether we want to actively participate in it or not. I'll never forget the expression on the face of a 12 year-old girl when she learned that milk came out of the body of a cow rather than a carton...she really did not want to believe what she was seeing! Another memorable moment was in front of a bull snake display we had set up in the American barn with a graphic that explained how many rodents this snake was capable of eating in a year...and how much wheat those rodents would eat! The dollar figure was substantial...around \$500.00 as I recall. One Sunday I overheard a wheat farmer tell his teenage son that they had better "...stop killing those snakes from now on, it's costing us money!" That was probably my first experience with "*in-situ*" conservation.

Teenagers -The future of wildlife depends not only on what we can do NOW, but what others will do in the future. This came to light at yet another zoo that was basically a private operation on city owned

land; the zoo prided itself on being self-sufficient and not taking public money. Everybody did everything including spinning cotton candy and driving the "train" on busy Sunday afternoons. To provide a learning experience for young people, and to enlist the aid of youthful, energetic volunteers, several programs were started for teenagers, including a Girl Scout badge program. Communicating with teenagers was most interesting, to say the least, but also very rewarding. Despite forewarnings about some of the participants, there were no serious problems while they were in the program learning about the zoo and sharing what they learned with younger children. To a person they left with a greater respect for the zoo and the animals they had been involved with.

From Bars and Boredom to Plants and Enrichment - In a small exhibits building, which emphasized local fauna such as pack rats, snakes and ground squirrels, I learned an important lesson on how zoo visitors perceive the animals; their understanding related directly to how we exhibit them. By taking small bare aquariums and cages and turning them into mini-habitats by painting murals on the back and using natural items such as grasses, twigs leaves and moss, the animals became more popular with the public. The result was a longer viewing time at these exhibits and more favorable comments about the animals by the zoo visitors. I believe we communicated a sense of "habitat" to these people and a better understanding of their local fauna. The pack rat exhibit was very popular and often had people lined up to get a good look at what was going on.

At one zoo I worked at, the people of the city supported it by donating food from their freezers, and farmers and ranchers often gave the zoo their aged or injured cows and horses to feed to the carnivores. We also received frequent calls from the state wildlife department, as well as the public, about road killed deer. Although picking up these animals took place at all hours of the day and night, and butchering had to be done promptly....the carnivores at that zoo were some of the healthiest I've ever seen. A 24-year-old female cougar, that died peacefully in her favorite resting-place, still looked in prime condition despite her age. Whole carcasses were often fed, including stillborn calves. It was my first experience with "enrichment" as we know it today....back then we called it "occupation".

The real first challenge with planted exhibits came at the same time I learned to care for small birds in an aviary. Although it was an old building, the Keepers had filled the exhibits with soil and planted them

with live plants, creating "habitat" displays. My first lesson, in addition to learning about a group of animals I had absolutely no experience with, was to learn which plants were nontoxic and how birds used plants in terms of nest sites, perching and playthings. Lories seemed to delight in nipping off the small branchlets of a Norfolk Island pine and watch them flutter to the ground only to repeat the process over and over again. Pepper spray, on the plants, had absolutely no effect on the birds' destructive behavior.

I not only survived that initiation, but learned to appreciate a whole new group of animals. Again, communication was the key to success. A young Assistant Keeper, despite being paid far less than me and who was technically under my supervision, was my teacher in that aviary. I'll always be grateful to him for sharing his knowledge and expertise, and for his guidance during a very difficult year in an antiquated building, filled with small birds and plants that I had virtually no experience with and a constantly rotating Keeper staff. No one wanted to work in that Unit. During the 15 months I was assigned to that area as the Unit Keeper, I worked with a total of eight other Keepers. Historically, no one worked in that area any longer than they had to. It was a difficult assignment and when I transferred out my successes were:

1. no rat-killed birds for one year
2. the cockroach infestation was under control, and
3. no one had thrown a gong brush at anyone else...( I did hose down a co-worker one day though, when he was overbearing....surprised myself as much as him, actually!)

...it was the year I got shingles and learned what job-related stress meant!

As a side note, I later learned that the overall champion challenger in the bird world is the Kea. They are the most frustrating and wonderful birds I've ever worked with. Everything you might have read about these mischievous birds is true and then some.

Getting Involved with a Species - Back in the 1970s, while working on a Bachelor's degree in "Zoo Operations and Animal Management", Dr. Ulysses Seal was my Major Advisor at the University of Minnesota. At that time he was also still involved in the development of ISIS®, served on the Minnesota State Zoo Board and was talking about special programs to save species; these would later be called Species Survival Plans® (SSPs). As the SSPs developed in the early 1980s, I

asked Dr. Seal how a Keeper could be involved in these programs. His answer was to pick a species and learn all about it. When I asked which species he would recommend he said the day would come when all animals in zoos would be managed in terms of conservation, and each species as well as individuals would be looked at in terms of the space they occupied. Dr. Seal advised that the more one knew about a given species or group of animals, the more helpful they could be when that time came. My species turned out to be the Matschie's tree kangaroo (*Dendrolagus matschiei*).

The first group of Matschie's tree kangaroos I worked with were kept in the largest indoor exhibit I've seen, to date....it was an old giraffe house. Not only was there nine upright, 17-foot tall trees, but a whole network of cross-branching and leaning trees. It seemed more than enough space for four tree kangaroos....after all it had contained three adult giraffe! Even Larry Collins, the "expert" on tree kangaroo husbandry, thought it might be possible to keep the male and three females together. However, giraffe are social animals and we learned that while tree kangaroos may tolerate each other's presence, reproduction was severely suppressed, even in that large exhibit.

After a period of trial and error, with various combinations of individual tree kangaroos being kept together...and a total of ten dead joeys (100% loss), the exhibit was divided and each female was given her own "space" in which to rear her joey. The thought of quitting occurred every time a joey was lost. After establishing a protocol, and providing suitable space for pouch-gravid females, there was a 100% survival of subsequent tree kangaroo joeys at that zoo during my tenure. During the time of trial and error, communications were sometimes very difficult, but we kept trying to work through the problem and come up with a compromise solution. The whole process turned into a carefully documented study that included:

- learning what needed to be done (i.e. separating conspecifics from pouch-gravid females)
- documenting the behavior of the collection
- working with University students on behavioral research projects
- collecting and sharing information on a world-wide basis
- compiling the Tree Kangaroo Husbandry Notebook
- establishing the Tree Kangaroo SSP®.

This was all the direct result of persistent communication.

Perhaps the most difficult paper I've ever had to present was in 1988 at an American Association of Zoological Parks and Aquariums (AAZPA a.k.a. AZA) regional conference....about those ten dead tree kangaroo joeys. The paper also reported the complete turn-around as a result of separating pouch-gravid females, and other zoos housing Matschie's tree kangaroos took heed. In 1988, seven Matschie's tree kangaroo births were reported, with five surviving. In 1989, after that presentation and the distribution of the Tree Kangaroo Husbandry Notebook, the number of births doubled to 14 with 10 joeys surviving, a 100% increase in one year.

At the AAZK Conference in Chicago, earlier this year, I presented a paper on the *Historical Perspectives on the Captive Management of Tree Kangaroos*. Unfortunately, our success in the early 1990s with breeding tree kangaroos in captivity did not continue into the late 1990s and 2000s. The current population of Goodfellow's (*D. goodfellowi*) tree kangaroos is 11 in North American collections and Matschie's are down to 52 individuals with a breeding population around 43 animals. Grizzled tree kangaroos (*D. inustus*) have become extinct in North American collections, Goodfellow's are on their way out and Matschie's are "on the edge". Over the past 15 years we have truly watched the rise and fall of tree kangaroos in North American collections. Can we turn it around? Maybe! It will take a tremendous amount of cooperation and adherence to the TKSSP protocols and optimal communication. The question is: Are today's zoological institutions up to that challenge?

Networking and "Getting Along" - From the first day working with tree kangaroos, back in 1982 until coordinating the fundraising of \$38,000 for the TKSSP Avian TB Research Project, I've been engaged in an on-going dialogue and effort to properly manage and conserve tree kangaroos, especially in our captive collections. In 1992, there were only two Keepers who were SSP® Coordinators and it was sometimes very challenging to communicate with curators and directors. However, once I put on my SSP® Coordinator's hat I took on a whole new set of responsibilities and quickly learned new techniques to communicate the needs of the animals.

Methods of communication have advanced from airmail letters and long distance calls to fax machines and e-mail. The Internet provides many avenues through which to share information. In addition to learning the skills of communication, Keepers must stay current with technology to keep pace in this 'information age'.

To close on the subject of communication, I'd like to share what was a most important lesson during those early years as a Keeper. You won't always like the people you are working with, but it isn't necessary to like someone to work effectively with them...it's an important step in becoming a professional Keeper. Effective communication requires an ongoing effort. The players change, the circumstances change, and your own attitude and moods will change from time to time. All of this requires adjustments in when, where and how to communicate those all-important messages regarding the animals in your care.

Over the years I've taken a few classes that have helped a great deal, such as: Interpersonal Communications; Effective Writing for non-Supervisors; Conflict Resolution; and Effective Public Speaking

### **The Big Five**

There are five character traits that come to light over and over when I look back on the profession of zoo keeping. The importance of these qualities really hasn't changed since 1975.

#### Common Sense

The element of common sense is inter-woven throughout the whole of a zoo's operation and a Zoo Keeper's work. It really isn't something one can just learn but can be explained as being the result of our life experiences and realizing how the world around us works. It is essential in our work as Zoo Keepers.

#### Initiative

While there are parameters within which a Keeper performs their duties, there needs to be initiative to improve and change things when necessary, and when coupled with common sense, to make decisions as warranted. I remember a Zoo Vet advising a group of Keepers that KUO (Keep Under Observation) meant to work with, and to keep the animal health department advised...it did not mean WID (Watch it Die), to wait too long. At the time I felt a bit miffed that the Vet thought a Keeper might WID, when in fact that is actually what had just about happened, making the reminder necessary. Initiative is the opposite of apathy, which has no place in the Zoo profession. There are times when it's better to act and then seek forgiveness if you've erred rather than wait too long or wish you'd said or done something, but didn't. I did that once...because I was a rookie

Keeper and didn't think I had anything to offer, I didn't speak out soon enough and an animal died. It might have died anyway, but the information I could have offered might have helped...we'll never know.

### Flexibility

Over the years I've had a wide range of supervisors, from one extreme to another. One insisted that the cleaning/feeding, etc be done EXACTLY as demonstrated while another gave Keepers totally free rein in decision-making and taking action. I didn't like either management style but learned to work with each of them.

Don't be too rigid. A too set routine can adversely affect animals as much as too much variation, or no routine at all. For example: At one zoo, it was a "rare", and usually upsetting occasion when more than the Keeper entered the animal area. The only time there was more than one person in the area was when an animal was to be immobilized or some other equally traumatic situation. At another zoo it was routine to carefully condition the animals to the approach of other Keepers, Volunteers and especially Veterinary Staff, "just to look". The animals at the second zoo were much more manageable and in better overall health.

Inflexibility, being too set in your ways, can inhibit progress and enhancement of the lives of the animals in your care. Remember, "flexibility" means "adaptability" and we need to be capable of that, too. Again: to share past words of advice, be careful not to let your feelings about a person negate what they may be suggesting. There have been times when suggestions for changes were made which irritated me. At the time the suggestion may have seemed "impractical" or "not feasible", but some turned out to be good ideas. Keep an open mind and evaluate ideas and suggestions from others. Work with your co-workers.

### Turning a Mistake into a Lesson

Being unable to admit a mistake means you're not going to learn from it. Everyone is going to make mistakes at one time or another. Unfortunately, as Keepers, our mistakes often have an effect on the welfare of the animals in our care.

Take time to analyze what went wrong, discuss the situation with others, and debrief if necessary. Follow through with any changes needed to prevent recurrence. There seems to be a rule in zoos

that if something goes wrong and nothing is done to change the situation, or improve a condition, it **will** happen again.

The biggest mistake of all is to not learn from it and share the experience with others so they don't repeat the error. It can be very hard to do this and means setting one's ego aside. Remember....the ugliest animal in the Zoo is EGO; don't let it get in the way of animal welfare.

Don't make the mistake of thinking you know it all. READ, LISTEN AND LEARN.... and ask questions....learn from the experiences and errors of the past. There is a whole history out there that would serve you well.

### Prioritize and Focus

Choose your challenges and battles carefully. You can use up a whole lot of energy on petty matters. Rest assured, I speak from experience here. It's hard to be upbeat and optimistic quite a bit of the time because of the very nature of this business. But, think about what's really important and what you hope to achieve. While we cannot always control what happens...we can control our own reactions. We can choose to be depressed and share that negativism with whoever will listen, or we can try to make a difference. Ask yourself, what are you going to do about it?

If there is truly nothing you can do about a situation, what good does it do to let it keep you down, and/or just complain about it? Use your energy to be a better Keeper, focus on where you can make a difference.

The TKSSP was my focus...it was my opportunity to make a difference. As I became more involved with it, I became less involved with minor issues. They take time and drain your energy. Time is a precious commodity....don't waste it.

## **What's New?**

### Keeper Training

Throughout my career, in addition to working with tree kangaroo conservation, I have had a strong interest in Keeper Training. It has always been a mystery to me how the zoo world touts Zoo Keeping as a profession, and expects professionalism from Keepers, but did so little for many, many years to properly train Keepers. Perhaps the very nature of the work, being many-faceted, has made it difficult to come

up with a program that accomplishes the task. At many zoos, Keeper Training seems to be an on again/off again effort and is rarely budgeted for.

Most zoos do not really have a comprehensive Keeper Training Program, and at best hope to hire experienced Keepers. AAZK and Animal Keepers' Forum has been the mainstay for many of us and will continue to be so. Conferences have always been the opportunity to learn and share information and ideas, and the Internet certainly has made that easier. Traditionally, Keeper Training occurs on an individual basis; Keepers must be self-directed and seek out the knowledge they need to succeed. Veteran Keepers have the serious responsibility of mentoring new Keepers

At the 1995 AAZPA (a.k.a. AZA) conference there was a session entitled "Sustaining Our Future: Strategies for Staff Training and Development". It was very encouraging, I don't recall a session quite like it at conferences for the 20 previous years I'd been attending them. At this session, the presentations and panel discussions by Curators and a Director gave good reason to be optimistic that Keeper Training would eventually be looked upon as not only important, but would be a measure of a zoo's operation.

One presentation emphasized that husbandry is now a "science" and stated:

- Keepers should not only be viewed as professional but should be expected to be professional
- Keepers need projects to call their own to utilize different skills and perceptions of job satisfaction
- Give training and guidance and, very importantly, mutual respect
- Review equipment to make zoo keeping more efficient

Another presentation, by a Zoo Director, was also encouraging. He gave the following advice:

- Hire good people and get out of their way
- A Zoo Director should be a facilitator, a conductor, to keep everything in sync
- Teach, motivate, be the person to allow it to happen
- Give responsibility, be a leader, a team builder, provide the resources
- Strive for input...if item 17 out of a list of 20 is a good idea, emphasize it....don't stifle ideas
-

For many years, several of us involved with the AAZK Education Committee tried, with limited success, to have Keeper Training included within past AZA committees. The good news is that in 2001, AAZK and AZA finally joined forces and put together the *Advances in Animal Keeping* course. Over the past three years the course was held at three different locations (Houston, Sacramento and Omaha), and is taught by both AAZK and AZA instructors. Oh, what I would have given to have had such a course available during my early years of animal care. Whether you are a rookie or veteran Keeper, consider attending this course. Hopefully, zoos will start budgeting for continuing education opportunities such as this.

#### The Five-Day Keeper:

From recent conversations with colleagues across the country, it seems that the trend is away from having a unit or area Keeper responsible for the animals in a regular, five-day workweek. I've heard it said that rotating Keepers through units daily, or every few days, will keep everyone up-to-date on everything and everyone will be an expert.

This really boggles my mind. How can you know an animal if you aren't there the majority of the time? You must know what's **normal** before you can know what's **abnormal**. A skilled five-day Unit Keeper, with a good Relief Keeper, who work together, ensure continuity of care. **NOTHING CAN REPLACE CONTINUITY OF CARE.** Over and over again, during the last 30 years of my involvement with animal care, the one constant that has been proven to be essential is *continuity of care*; it is paramount in exotic animal husbandry. Every time that rotating Keepers was tried during my career, an animal suffered from it. I know of several that have died because lack of familiarity resulted in waiting too long for the animal health department to intervene. I've seen an animal change its behavior in response to an unfamiliar Keeper, which was then misinterpreted. Lastly, inexperienced, unknowledgeable people made decisions about animals that resulted in illness or injury, and sometimes death.

Rotating Keepers every day or every few days has to be a communication nightmare. We all know how difficult communicating is in the best of circumstances.

#### Enrichment

It's good to see how this has caught on over the last ten years or so. The AAZK Enrichment Committee helps ensure that enrichment continues to benefit the animals and not cause harm. Fortunate is the

Keeper who is given the time and resources to include enrichment as part of their routine. This is an area where supervised volunteers are very helpful, and receive immediate appreciation and gratification for their work. "Enrichment Options", a regular feature in *AKF*, offers ideas and suggestions on a wide range of species, as well as contacts from which to seek advice.

Carefully planned and monitored enrichment programs should be a part of every zoo's operation, for as many species as possible. However, again this is an area where we must share what didn't work as well as what worked. A number of years ago, a kea died of impaction from very fine strands of rubber inside the yarn of what was supposed to be an all wool sock. It had been given to the kea as an "enrichment" item.

### Operant Conditioning and Training

This is another area that has changed dramatically since I retired from Zoo Keeping. It was being done in the mid-1990s but not on the scale that it's being carried out today. Every issue of *AKF* has an article, or two, about how animal husbandry has been improved through training. The animals have certainly benefited in many, many ways.

There are cautions here also. Training in excess can result in dominating the animals, forcing them into "our way" and we no longer learn from them. Again, you must know what's normal for a given animal. You must know if you are causing unhealthy stress. I've been told of a facility that starts training an animal while it is in quarantine. Next to shipping, quarantine is one of the highest stress situations zoo animals have to experience.

On the subjects of both enrichment and training, first, do no harm. Follow the examples and advice of those who have been successful. Here again, there is a wealth of information out there to learn from; it is not necessary to reinvent the wheel.

### Time

People need approximately 30 days to adjust to a new situation, and I've learned that tree kangaroos do also. I'd venture a guess that this applies to animals in general. Time is a tool - use it wisely. One quick example: two facilities with newly acquired snow leopards.

- Keepers at one facility forced transferring the cats on/off exhibit by hosing them, adding to their stress
- A Unit Keeper at the other facility asked the Relief Keeper and Supervisors to work with him and give the excited/stressed

animal TIME to adjust. It took several weeks before the snow leopard settled down and was transferring on request. Later when she cubbed, she was very tractable and the neonate exams on her cubs was done with minimal stress to the snow leopards and animal care staff. She turned out to be a very easy-going animal; time well spent.

### AAZK Conferences and *Animal Keepers' Forum*

I joined AAZK in 1973 and was honored with a Lifetime Achievement Award and lifetime membership in 1998. AAZK has been through many peaks and valleys since it started as a grass-roots effort by Keepers in San Diego, CA. The original intention of the founders of AAZK was to solve problems with communication and to improve the care of the animals at the San Diego Zoo. AAZK's first newsletter was created in co-founder Dick Sweeney's garage. Dick became the first Executive Director of AAZK and "...was granted permission to unveil the AAZK in a presentation at the 1968 National AAZPA (AZA) Conference in Los Angeles." In 1969 AAZK formalized when a Board of Trustees was appointed.

The first AAZK conference I attended was a regional conference at Boise, ID, on my honeymoon; I had married a Zoo Keeper. In 1974, I presented my first paper at the National AAZK Conference in Chicago. I've lost count of how many AAZK, AZA and Australian Keeper Conferences I attended over the years, but I can say that every one of them helped me be a better Zoo Keeper.

In November 1974, a small group of Keepers and Volunteers from the Topeka Zoo and St. Paul's Como Zoo published the first issue of *AKF*, a whopping four mimeographed pages. The latest issue of *AKF* has 48 pages. Not only has *AKF* grown in size but also in *quality*. Over the past three decades, many dedicated people have made sure *AKF* continues to serve as the AAZK's communiqué about the profession of zoo keeping. Special recognition and appreciation must be given to the Managing Editor, Susan Chan. Unless you've published a newsletter like *AKF* you have no idea how much work goes into making sure we receive *AKF* every month.

What does AAZK mean to you? Mark de Denus' *Viewpoint* article in the August 2006 issue of *AKF*, page 318, was a delight to read. His memories and experiences have been shared by many of us old timers. AAZK will always be what you, as a member, will make of it.

### **In Closing**

In many ways the zoo profession and zoo keeping have changed dramatically since I became a Keeper in 1975. And yet, the basic needs and care of the animals will always remain most important while zoos continue to evolve. Remember the three essential elements of a zoo are:

1. the animals
2. the enclosures to keep them in
3. the Keepers to care for them.

As a Keeper you must continue to hold the line on quality care while continually improving your knowledge and skills, to keep pace, and to be a major contributor, a part of the team. A Keeper is not at the end of the line.....but will always be at the beginning of interpretation.

*It's hard to imagine that one could ever learn all there is to know about zoo animals.....keep learning and sharing.*

I became a Keeper to make a difference and believe I did. I'd like to share with you Larry Collins' words from the last Tree Kangaroo Studbook he published before he retired in 1996.

*"During the past 29 years with NZP I have been witness to changes in the zoo world; many good and some not so good, but in spite of the colossal hurdles we face in our race against the extinction of rare and endangered species I remain eternally optimistic, for I know that there are zealots on our side in the front lines of this fight. There are dedicated individuals who work tirelessly and are not willing to compromise, and are not going to quit in spite of all the odds against us. They may not be the most well known names in the zoo field, and they might not be the most published, but they get things done and they accomplish their goals whether it is raising money for some desperately needed veterinary or field research project or another worthy cause that will increase the chances for survival of a species. I know such individuals exist because I have worked with you over the years. Keep up the good fight."*