

BOS CANADA

NEWS 2010

FOR THE PROTECTION OF WILD AND REHABILITANT ORANGUTANS & THEIR NATIVE HABITAT

BORNEO ORANGUTAN SOCIETY CANADA

Board of Directors

Anne E. Russon (Exec. Director) Rob Laidlaw Kristin Andrews Laura Adams

Treasurer Seema Duggal

Seema Dagga

Secretary

Charmaine Quinn

Scientific Advisors

Dr. S. Wich Dr. R. Shumaker Dr. I. Singleton

HELP US SAVE PAPER

To receive our newsletters by email, please forward your current email address to boscanada@gmail.com

To receive our newsletters in print form, please let us know in writing or by email, at the address below:

BOS CANADA

74 Boultbee Ave. Toronto ON, M4J IBI, Canada

Tel: 1 416 462 1039 Fax: 1 416 487 6851 Email: boscanada@gmail.com

Web: www.orangutan.ca

A registered Canadian Charity

86282 4786 RR000

thanks to Andrea Cowen for our logo



BOS Canada is an independent, registered Canadian charity founded to support orangutan conservation and to raise awareness of the serious threats to orangutan survival. We are dedicated to protecting wild and rehabilitant orangutans and their native habitat. Activities in Canada focus on education and fundraising. The funds we raise primarily support orangutan protection in the field, in Indonesia and Malaysia, e.g., rescuing displaced wild orangutans, rehabilitating ex-captives to forest life, surveying and protecting existing orangutan populations and habitat, and conservation education. We operate entirely by dedicated volunteers, minimize administrative costs and ensure that the funds we raise reach the projects we support in the field.

ORANGUTAN UPDATE: How many Remain?

A recent review (Wich et al., 2008) estimates that the number of orangutans remaining in the wild is approximately **55,000**, with roughly:

6,600 orangutans in Sumatra 48,600 orangutans in Borneo

Due to rapid forest lost, these numbers continue to diminish at an alarming rate. The authors conclude that "unless extraordinary efforts are made soon, [orangutans] could become the first great ape species to go extinct."

Wich, S. A. et al. (2008). Distribution and conservation status of the orang-utan (Pongo spp.) on Borneo and Sumatra: how many remain? *Oryx*, 42(3), 329-339.

BOS CAN DONATIONS AT WORK HELPING ORANGUTAN ENTERTAINERS RETIRE

BY JOSHUA SMITH

In 2009, BOS Canada was fortunate to receive a very generous donation from Ms. Galina Bugaeva, a retired professional violinist in Toronto with a long history of volunteering and supporting local animal protection and welfare charities. The talk that we sponsored by Dr. Rob Shumaker, on great apes in entertainment, spurred her to help orangutans. She was very moved by the plight of retired ape entertainers, especially the last six orangutan entertainers in the Unites States that Dr. Shumaker was helping to retire in dignity.

After speaking with our volunteers, Ms. Bugaeva donated \$5000 "to help those [ex-entertainment] orangutans to live free of pain and to be happy." She wanted to help ensure that, unlike some ape entertainers, these orangutans retired to facilities that would provide them a good quality life, not medical or road-side zoo facilities.

BOS Canada is happy to announce that, in consultation with Ms. Bugaeva, this year we sent \$2000 of her donation to the Center for Great Apes in Wauchula, Florida. CFGA is the only North American orangutan sanctuary. It has accepted former entertainment, research, and pet orangutans and chimpanzees since 1993. CFGA also campaigns actively to end the use of apes in entertainment. In keeping with Ms. Bugaeva's and BOS Canada's aims, this donation is supporting the construction of much needed night cages for retired orangutan entertainers. These are especially needed for males, who become increasingly intolerant of other males with age.



Patti Ragan, CFGA President and Founder, wrote back:

We are very grateful for the generous donation of \$2000 Canadian recently sent to the Center for Great Apes for assistance with a new bachelor male orangutan facility. Your participation in the Center's rescue and care efforts allows us to continue to provide high-quality care for the 45 resident orangutans and chimpanzees.

This gift will help us continue to build a new facility to house some of our nine growing male orangutans. The new facility includes a large six-room nighthouse and two outdoor domes.

Thank you again for your donation to help us build appropriate space for our many former entertainment orangutans.

For more information, see CFGA's website: http://www.centerforgreatapes.org/



FROM THE EXECUTIVE DIRECTOR

This year, we focused on granting funds to support projects contributing to orangutan conservation in the field and their welfare in captivity. We presented lectures on wild orangutan conservation and on sexuality. We were sad to receive resignations from Linda Spaulding, a founding Directors, and Seema Duggal, our Treasurer, but welcome Laura Adams as a Director and Michael Reid as Treasurer.

Entertainment orangutans grant. In 2009, we received a major donation to support ex-entertainment orangutans, and were very pleased this year to grant \$2000 from it to the Center for Great Apes. The funds will help CFGA construct new night cages for its maturing male entertainment orangutans. See the story on page 1.

Publications. Purwo Kuncoro, one of our members, translated two of the IUCN Best Practices Guidelines for Great Apes into Indonesian (Reintroduction, Conflict Mitigation). Indonesian versions of both are now available electronically and in print (see http://www.primate-sg.org/sga.htm). We continued distributing the Indonesian Reintroduction Guidelines that we had printed at the International Workshop on Orangutan Conservation (Denpasar, Bali, July 15 - 16), and were pleased to see the high and steady demand for them. Other members published notable papers or are conducting important work on orangutans: several newsletter articles report on them.

Where the wild orangutans are: New hopes for wild orangutans in Kutai National Park, E Kalimantan — Anne Russon. I lectured on my new wild orangutan research and conservation project. My report sketches the project and our progress. (see the talk on You-Tube: http://www.youtube.com/watch?v=OVN8s7TT0hQ)

If sex is for reproduction, why is there so much non-reproductive sex? — Dr. Paul Vasey. On Oct. 25, we presented a public lecture

by Dr. Vasey on his long-term work on sexual behavior in wild Japanese macaques and in humans. Work like this is important because it concerns natural primate behavior and aims to explore the biological bases for sexuality by comparing human with related species. Dr. Vasey is very highly respected for this work, and worth checking out.

BOS Canada Conservation Grants. In 2010, we continued and expanded our small conservation grants program in support of projects that contribute to orangutan conservation. We offered funds to four very promising projects (see sketches, p. 10). These projects are still ongoing, so their reports will appear in our next newsletter. We also offer reports from two of the projects funded in 2009.

BOS Canada website (www.orangutan.ca). Yes, our website has been down since late October. Look for our new one in December. We are creating a more dynamic site and are now finalizing the design. We expect to provide a richer array of images, videos, news, and documents. Plans include a new wild orangutan adoption program, in conjunction with the wild orangutan research and conservation project we are supporting in Kutai National Park, E Kalimantan.

Looking ahead. Plans for 2011 include more lectures by experts doing important work to support orangutans and other primates, funding conservation-oriented work in orangutan habitat, developing collaborative ties with other interested agencies (zoos, sanctuaries, individuals), and increasing our own conservation work in the field.

We sincerely thank all our members, volunteers, contributors, and donors who have enabled our work to date, and very much hope that we can count on continued support this coming year.

- Anne Russon

THANKS TO OUR SUPPORTERS

Volunteers

Adam Bebko Darryl Burgess Jackie Craig Rachel Horton Diane Kalil Purwo Kuncoro Bill Longo Charmaine Quinn Michael Reid Joshua Smith Devin Whalen (web)

Photo by P. Kuncord

SPONSORS/SUPPORTERS

Toronto Zoo, <u>www.torontozoo.com</u> Zoocheck Canada, <u>www.zoocheck.ca</u> Canadian Association for Bushmeat Awareness Great Ape Trust of Iowa, <u>www.greatapetrust.org</u> York Univ., Toronto, <u>www.yorku.ca</u> glifencible, <u>http://www.youtube.com/user/ glifencible</u>

Donors

Matthew Clifford Ronald De Sousa Wiliam Herzer Gordon Matheson Gary Prost Michael Reid Erika Ritter Peter Robertson Anne Russon



hoto by P. Kuncoro

BOS CANADA

NEWS 2010



CONSERVATION EDUCATION TRAINING CAMP IN SUMATRA By Helen Buckland, Sumatran Orangutan Society ~ 2009 grant recipient

From July 30 to August 2 2009, 29 Indonesian teachers from junior high and high schools in Medan, Deli Serdang, and Langkat regions attended a BOS Canada supported Orangutan Information Centre (OIC) 'Sumatran Orangutan Conservation Education Training' in Berastagi, North Sumatra. This workshop is of huge importance, since environmental education is not part of Indonesia's school curriculum. Indeed, 76% of participants had no previous environmental training and so little knowledge of the issues. By training Indonesian teachers about conservation and the environment, we are enabling them to pass this knowledge to their students, with potentially far-reaching effects.

Various lectures and activities were offered during the training camp. OIC staff, a Gunung Leuser National Park official, and a guest facilitator from another Sumatran NGO were in charge of events. We held sessions on the rich levels of biodiversity in Sumatra's forests, such as the Sumatran orangutan, elephant, tiger, and rhinoceros. These species' behavior and ecology were also described. An additional extended session was held on the critically endangered Sumatran orangutan, highlighting its role as both a flagship and an umbrella species.

From tests distributed both before and after the training sessions, participants improved across the board on wildlife and conservation knowledge. Teachers now knowing that the correct scientific name for the Sumatran orangutan, a separate species from their Bornean cousins, is Pongo abelii, increased from 73% to 83%. (The Bornean orangutan is Pongo pygmaeus and has three recognized subspecies; the Sumatran orangutan has no subspecies.) 93% of the teachers also learned that the current distribution of Sumatran orangutans is restricted to the northernmost provinces of North Sumatra and Nanggroe Aceh Darussalam, the great majority of Sumatran orangutans reside within the I.I million ha Gunung Leuser National Park, and GLNP is considered their last stronghold. Lastly, 90% of teachers left the training knowing that the latest estimates indicate only 6,624 Sumatran orangutans surviving in the wild, and thus they are classified as critically endangered.

The conservation issues faced by orangutans and the efforts underway to protect them were discussed and reinforced by recent media articles. The concept of endemism (the ecological state of being unique to a particular area) was explained using many species of fauna and flora that are endemic to Sumatra as examples, such as the Thomas leaf monkey. The laws protecting wildlife were explained. The teachers were told they could play a part in conservation by



Top: Teachers' visit to the forestry institute **Bottom**: Taking lessons to local schools

speaking out against hunting, injuring, killing, or capturing of fauna and flora on the island.

Next we hosted a workshop on disseminating environmental education. Teachers were advised to start by considering environmental problems within their own schools or surrounding communities, and then to brainstorm with their students about steps that could alleviate them. This interactive exercise demonstrates that we all have a role to play, and we can make things better ourselves if we choose to plan and act. Rubbish problems, for instance, can be improved with proper waste management using the principle of the three R's: reduce, reuse, and recycle.

The workshop also included a field trip to the provincial government's forestry institute, where teachers learned about environmentally friendly agriculture, cultivation techniques and mixed agroforestry systems and how these can benefit wildlife and biodiversity. In a laboratory session, we analyzed the constituents of and important microorganisms in organic compost. Teachers especially appreciated this session. Finally, a forest restoration session explained the long process of reforesting cleared or degraded forest ecosystems that took centuries to grow.

In practical training sessions, teachers prepared a conservation-oriented lesson plan to use with their students. From group discussions about the relevant and important topics to target, we chose the following :

- I. deforestation
- 2. waste management
- 3. air pollution and water crises (flooding and drought)
- 4. Sumatran orangutan conservation

Teachers split into four groups, each of which developed a lesson plan containing a clear strategy, methods incorporating the media, expected results, and measures to evaluate student comprehension.

We took these lessons to one junior and one senior high school in Kabanjahe, North Sumatra, to test them with students. Each teacher group reported that the students were very enthusiastic about the material presented. They used games and demonstrations to show differences between clean and contaminated water, and students created environmentally themed posters about forests and ways for everyone to help make their environment better. Students were then asked to search for and collect rubbish, to sort it into organic and nonorganic groups, and to describe what could be recycled into other items or be turned into compost.

This was accompanied by a visit from the OIC OranguVan mobile library service, which students and community members always enjoy because it provides informational resources not otherwise available. Finally, all were asked to share their thoughts on the activities and assess their own role in the environment.

On completing the program, all the teachers pledged to incorporate what they had learned about conservation and the environment into their classrooms. Some have made plans to start planting trees in their own communities, something that OIC supports. We will provide seedlings from our tree nursery in Medan to get them started.

This we feel is monumentally important to communities living adjacent to the Leuser forests and biodiversity. Although we all have a role to play in orangutan conservation, it is these communities on the 'frontline' that are most affected. Thus education is a key issue: without it, no local conservation plans would have come about or have even been discussed. If people are not aware of the issues, they cannot be expected to act for them.

We therefore thank BOS Canada for their generous support. Together we can continue working towards the conservation of our nonhuman primate cousins.



A SENSE OF WONDER ... WHAT'S TOBY UP TO ?

BY CHARMAINE QUINN

I recently returned from my fourth summer at the Sepilok Rehabilitation Centre in Sabah, Malaysian Borneo. The Centre is surrounded by 43 sq km of the Kabili Forest Reserve and has been home to many displaced and orphaned orangutans since 1964. Sepilok has a series of platforms that are used for supplemental feedings to help the orangutans during their transition to independence.

I was happy to see the progress of the nursery group, 2-4 year olds, who have graduated to the advanced jungle gym and have now started their daily climbing lessons in forest school. The juveniles, 5-7 years old, have been released at Platform I, near the centre, giving them time to explore and learn about their environment close to "home".

Older orangutans who are more experienced and better adjusted to their forest surroundings are placed at Platform 4, which is located deeper in the forest. Although orangutans are comparatively solitary, these rehabilitants are forming loosely structured gangs similar to those seen in chimpanzee society which are giving them opportunities to socialize and co-operate with food sharing and learning.

There have been many documented cases of orangutan intelligence. I have seen numerous instances at Sepilok of making and modifying tools, for instance. Orangutans make on-the-spot decisions and plan which tools to use. I have seen them using leaves as fans and fly swatters, using an arm as a plate to hold food, rolling like a ball to avoid bees, and many others. If an object is unattainable, they will find a solution to the problem and solve it with insight. Many rehabilitants become bi-cultural, spending part of their time in the forest but also returning to the centre for food or comfort, therefore enjoying the best of both worlds. [Note: young rehabilitants may see advantages to bicultural life, but attempts to live in both worlds easily backfire when they are older and less easily managed, when they meet unfamiliar humans who do not welcome them, and if they contract human diseases like TB or hepatitis].

Orangutans are also capable of behavioral deception and can be cunning with their caregivers. One of the more resourceful

orangutans, named Toby, spends his days at Platform 4. Toby apparently successfully conned a primatologist and a ranger into believing his arm was injured so that he could get out of his temporary forest holding area. Upon release, he quickly climbed the tree leaving the staff quite puzzled. On my last visit, Toby came up to me with his mouth open as if in pain and we took him back to the clinic-only to find out that he had no ailment at all. Toby's deception is an example of his high intelligence and his ability to manipulate a situation to his own advantage. Orangutans clearly understand their actions have specific consequences.

Unfortunately, due to loss of habitat and the illegal wildlife trade, the future for orangutans is precarious at best. With the rehabilitation process, which also helps to cement friendships, some orangutans will at least have a greater chance for survival.

The infamous Toby \rightarrow (definitely has the look of a schemer).



REMEMBER ROCKY? By Anne Russon



Last year, we were pleased to report that Rocky and several other orangutans had been released from the entertainment industry into the care of the Great Ape Trust of Iowa. Support from the Trust unfortunately ended. other orangutans from the Trust have moved to Indianapolis Zoo, with Dr. Rob Shumaker, and are now adjusting to life there. I had the pleasure of meeting Rocky there when I visited in November. Their facilities are still being developed but the care is great and they have top quality, stimulating accommodations to look forward to.

The good news is that Rocky and most of the

ORANGUTANS IN ENTERTAINMENT: HOPES & FEARS By Kristin Andrews

Last year I wrote about the problems with using orangutans in entertainment. I suggested that we can help stop this practice by immediately contacting the company using orangutans and other apes in TV shows, commercials, movies, etc. This fall there was a successful campaign led by PETA against a TV commercial for Robitussin cough syrup that used an orangutan actor. Once the pharmaceutical company, Pfizer, began to get complaints, they stopped showing the commercial. Pfizer and the advertising agency that developed the commercial, Grey Group, vowed never to use great apes in advertisements again. That is a great success.

Great apes used in the media are often taken from their mothers while still young infants, and for this reason suffer mentally and emotionally.

Sometimes they are also abused physically. Further, the use of great apes on TV has been shown to make the public think that great apes are not endangered. The direct and indirect harm done by using orangutans and other great apes in entertainment is clear, and we thank everyone who helped to pull this advertisement from the air.

If you see a commercial, movie or TV program that features a real great ape, you can contact the public relations branch of the companies that made the commercial or sponsored the program and explain your concerns. Companies don't want to use controversial advertisements, and they are usually very responsive to such complaints. It only takes a minute, and a phone call or an email can do a lot.

ORANGUTANS IN THE NEWS: PANTOMIME By Kristin Andrews

Orangutans are well-known for their intelligence but did you know they pantomime, or act out what they want to say, to communicate?

This summer Anne Russon and I published a scientific article in *Biology Letters* about the ways in which rehabilitant orangutans act out what they want to "say". For example, Cecep, a juvenile male, asked Anne to clean dirt off his head by briefly rubbing a leaf on his dirty head himself while sitting near and looking at Anne, then handing the leaf to Anne (he's picking the leaf in the photo on the right). Another orangutan, Siti, an adolescent female, asked a technician to open a coconut for her. She saw that the technician had a machete, so she handed him the coconut. When he tried to give it back to her without opening it, Siti picked up a branch and began to chop it on the coconut, as if she were using a machete. This finding is important because most scientists have believed that only humans can pantomime, and one theory proposes that pantomime was an important stepping stone in the evolution of language.

Orangutans can pantomime to make requests, as Cecep and Siti did, but they can also pantomime simply to share information. In the article we reported an incident with Kikan that Agnes Ferisa published in our 2008 newsletter. One day, Agnes spotted a 3-year-old female named Kikan trying to remove a sliver of a stone from the sole of her foot, but failing. Agnes picked out the stone with the point of a pencil. Then she picked a fig leaf and dabbed its stem on the wound, because the fig latex would help dry it. About a week later, Kikan approached Agnes and held up her wounded foot, but Agnes didn't pay attention. So Kikan picked a leaf, pulled Agnes' hand until Agnes looked down at her, and then acted out the leaf treatment by dabbing the leaf on the sole of her wounded foot. Agnes watched and saw that the wound was healed. Then Kikan simply left. In this case, Kikan pantomimed an event that she had experienced with Agnes in the past, and she seemed simply to want to show Agnes what she remembered and/or that her foot was healed.

We found that orangutans often pantomime to clarify what they mean when their original message wasn't understood. But that's not all. We also found that they pantomime for other purposes, including making requests, sharing information, lying, manipulating others' emotions, and figuring things out. To see some of the video of orangutan pantomime, you can visit our website: www.orangutan.ca.



Orangutan Pantomime in the media For links to these articles visit our website

Discover	4 messages a pantomiming orangutan might be trying
	to convey
Science Now	Apes play charades
BBC	Orangutans mime to get message across
Science News	Orangutans can mime their desires
The Guardian	Orangutans use mime to make themselves understood
New Scientist	Play-acting orang-utans signal their desires
Discovery News	Orangutans use charade-like communication
CBC Radio	Quirks & Quarks interview Sept. 18 (listen to podcast)

Pantomime and the gestural origins language idea An enjoyable intro to the idea that pantomime may found language

http://www.summer10.isc.uqam.ca/Page/docs/readings/CORBALLIS_Mic hael/Corballis-presentation.pdf



CAN PEOPLE AND ORANGUTANS LIVE IN HARMONY ?

BY GAIL CAMPBELL-SMITH ~ 2009 GRANT RECIPIENT

Gail submitted a very thorough report, which we will send on request. We digested her report to provide an overview this important study.

The project's broad aim is to conserve wild orangutans by focusing on ways to mitigate the problems posed by human-orangutan conflict. This study—the first of its kind—sought a detailed understanding of local views on conflicts between people and orangutans in North Sumatra, an essential first step to reducing them. Such understanding can only be gained from the local people and the orangutans who participate in these conflicts the people losing their crops, the orangutans losing their forests. Understanding how habitat disturbance affects orangutans is also imperative if we hope to make progress in establishing viable reserves for them.

To assess local peoples' perceptions of crop-raiding orangutans, Gail conducted a questionnaire study of 14 villages in two North Sumatra districts. The first study area, Batang Serangan, is an agroforest system that supports 16 isolated orangutans who crop-raid. The second study area, Sidikalang, comprises farmlands bordering extensive primary forest that orangutans inhabit (est. 134) who are not reported to crop-raid. Forests in both areas are degraded, so neither represents typical orangutan habitat. Each, however, provides important insights into the possible future of orangutans if Sumatran rainforests are further fragmented and degraded. To understand how these conditions affect crop-raiding orangutans, Gail followed them for 4,062 hours across two years.

Findings. Over half the farmers surveyed in one district reported suffering crop damage from orangutans isolated by agriculture and plantations. Farmers considered orangutans the third most frequent and fourth most destructive crop pest, after Thomas' leaf monkeys, wild boars, and long-tailed macaques. On the upside, most farmers were tolerant of orangutans they did not see as directly threatening their crops. However, such tolerance did not extend to situations where family members felt threatened. Over a quarter of the farmers feared orangutans, if they did not perceive them to present a physical threat. Even in these situations, however, farmers still generally supported the conservation of orangutans. Only a small minority (13%) of farmers living with crop-raiding orangutans reported having captured, shot, or killed orangutans in retribution, and no direct evidence for retribution killings of orangutans was found in North Sumatra. These results suggest that efforts to mitigate humanorangutan conflict may not change negative perceptions of those who live with orangutans because these perceptions are often driven by fear. Further, most farmers did not have a clear sense of who should deal with orangutan-farmer conflicts. Most Batang Serangan farmers said the local Forestry Department staff should handle crop-raiding orangutans, but that they did not care about such problems.

These crop-raiding orangutans are isolated so the question is not whether they are negatively affected by human disturbance but how they handle it. To find out, their activity budgets, diet, and movements were compared with those of orangutans in more normal habitat. Comparisons show that their behavior in these disturbed habitats is very different from that of 'normal' orangutans.

Crop-raiding orangutans spent more time resting than any other activity (feed, travel, other). Their resting time was over twice their feeding time (54% vs. 24%). This is very unlike other Sumatran orangutans but similar to Borneans-especially Borneans living in irregular or disturbed habitats, and other crop- or food- raiding primates. Resting more may help lower energy output, a tradeoff linked to these orangutans' unusually high reliance on fallback foods. especially bark. Fallback foods are foods that are not eaten unless better ones are unavailable, and typically poor in quality. Bark is the best known orangutan fallback foods and it is nutritionally very poor.

Orangutans are first and foremost fruit eaters but they also rely heavily on leaves. In good Sumatran forests, fruits, leaves and bark constitute 66-68%, 16% and 1-3% of their diet respectively. For these cropraiding orangutans, these foods constituted 46%, 13% and 33% of the diet. Their agroforest habitat is highly disturbed, low in species richness and extreme in climate, and they ate fewer food species than orangutans elsewhere (52: 40 wild, 12 agricultural). Their bark feeding is the highest reported in Sumatra and may be higher than in E Borneo, the poorest orangutan habitat. In one month, bark was 94% of crop-raiding orangutans' diet.

Crop-raiding orangutans' home ranges may be smaller than those of Sumatran orangutans in better forests, but similar in size to those of Bornean orangutans in disturbed forests. Smaller home ranges may reflect spatially concentrated foods, but may be an artifact of study difficulties (following orangutans was difficult in steep terrain). Crop-raiding orangutans traveled farther on days when they raided crops than on days when they ate only wild foods (see maps below). Agricultural crops have calorific benefits compared with most natural forage and altered orangutan activity accordingly. Most likely, a combination of diet switching and resource monitoring enables these orangutans to survive in these farmlands.



BOS CANADA

NEWS 2010



CAN HUMANS AND ORANGUTANS LIVE IN HARMONY CONTINUED

Discussion. Findings highlight the complexities of farmer-orangutan conflicts in North Sumatra and issues that must be addressed to resolve them.

Sumatran orangutans are protected by law, but their survival depends on habitat protection and continuing tolerance by humans living near them. The positive findings on human tolerance emerging from North Sumatra can serve as the basis for developing conservation education programs for communities affected by living near orangutans, especially women and children. Such programs will not solve the long-term problems posed by human-orangutan conflict but may promote better understanding of orangutans and greater appreciation of their conservation value. Taking a genuine interest in the plight of farmers who experience conflict with orangutans may reduce animosity and fear and help reduce conflicts, buying time to build longer-term measures.

Human-orangutan conflict is a multidimensional problem in the context of economic instability for small scale agricultural farmers. Orangutan protection is the responsibility of local governments. Their jurisdiction often ends at protected area boundaries, however. When orangutans are isolated outside protected areas, as in such agroforest systems, who is responsible for dealing with conflict and protecting orangutans can be ambiguous. With the continuing conversion of natural forests to largescale plantations such as oils palm, rubber, etc., it is imperative that we understand the multiple interplays associated with this problem. Conflict resolution is difficult to achieve if there is no single professional body dedicated to it. As a result, the remaining orangutan populations face numerous threats and the immediacy of these increases the need for a detailed understanding on how orangutans respond to these changes will be essential for their survival.

The orangutan behavioral responses to human disturbance presented in this paper will only contribute to their conservation if combined with previously accumulated knowledge on other orangutan studies. All combined data should then be used to produce the formulation and implementation of a national and international land-use conservation plan for both Sumatran and Bornean species living in and outside of national parks.

Finally, that three births occurred within this study period suggests that these orangutans are not beleaguered and have adjusted to coexisting with daily human disturbances. However, Cheryl Knott suggested that for females, negative energy balance affects reproduction, including fewer conceptions when food is scarce, so ketone, hormonal, and genetic analyses are needed to understand the impact of this way of coping on their long term survival. In terms of managing crop-raiding in these farmlands, one strategy could be planting orangutan food trees.

Trees take several years to grow and fruit, however, so any such strategy would have to be combined with extensive conservation and environmental education programs.

RELATIONSHIPS MATTER TO ZOO-HOUSED GREAT ÅPES By Joshua Smith

If you stop and think for a moment about all the people you interact with on a daily basis, you will probably note that you do not interact the same way with everyone. You interact differently with your spouse, children, parents, siblings, friends, neighbors, coworkers, boss, bus driver, store clerk, and absolute strangers you pass on the street. Ask humans why, even the youngest children, and you'll get answers that boil down to one word: *relationships*. Our interactions are based on our relationship(s), or lack thereof, with other people. To us, this is common sense.

It should not be surprising that humans are not unique this way. Any pet owner or person familiar with nonhuman animals will tell you that their interactions are relationship-based too. Research has shown that individualized relationships are important in normal social interactions between members of nonhuman species. My studies at Toronto Zoo are showing that relationships also matter in great apes interactions with humans. I'm assessing how their overtures to humans depend on their familiarity with the humans. This study is unique in two ways. First, it examines ape-human interactions from apes' perspective by looking at their initiatives versus responses to humans. Second, unlike other studies of human impact on zoo primates, which typically look for simple effects and find that visitors stress them, my study compares apes' interactions with visitors vs. familiar zoo staff and keepers.

My preliminary findings are consistent with common sense expectations. Toronto Zoo orangutans and gorillas direct different behaviors to different humans. First, their interactions with familiar humans, i.e., zoo staff and keepers, are more frequent, longer, and more complex than those with visitors. While they mostly watch visitors from afar and may hide from them, their interactions with zoo keepers typically involve approaching, intense visual contact, tracking, and gesturing (e.g., reaching out).

These apes' interactions with unfamiliar visitors (but not familiar humans) also differ between immature and adult apes. This is particularly evident for interactions that require more effort on the part of the apes, such as playing with visitors at glass-partitioned viewing areas. I have seen immature orangutans and gorillas follow humans along glass barriers, press their faces against the glass and peer at them; immature gorillas also charge and pound the glass apparently for the fun of startling the humans. Adult apes have generally not been observed engaging in these kinds of behaviors toward visitors.

Perhaps even more interesting than this age difference is an apparent age difference in the visitors that the apes select as interaction targets. Again, my observations appear consistent with "common sense": immature orangutans and gorillas choose immature humans (toddlers and children) to interact with. This may illustrate what is called the "Universal Law of Attraction": like attracts like. Exactly why immature apes prefer to interact with human children versus adults remains to be determined. It could have to do with children's similarity in size, their less threatening appearance, or their greater activity compared with adults. It might also simply be that kids are kids and, as between humans, kids choose to play with other kids, regardless of race, creed, color, and in this case species.



Thus inter-individual relationships set the tone for interactions, apparently even between species. Understanding who great apes choose to interact with, and why, has important implications for zoo animal welfare and perhaps for conservation in the context of great ape tourism and rehabilitation. Additionally, my findings may shed light on the evolutionary history of human social interactions, such as why children appear more social than adults and more willing to interact with individuals who are obviously different than themselves.



WHERE THE WILD ORANGUTANS ARE

BY ANNE RUSSON

This project aims to study ranging in the E Bornean orangutan, *Pongo pygmaeus morio*, in E Kalimantan. East Borneo is the worst orangutan habitat, with the poorest foods and longest, harshest food scarcities. Thus *morio* is essential to understanding orangutans because it represents their adaptive extreme.

Morio is currently believed to have a suite of distinctive traits, including brown-black color, the most robust jaws, the smallest brains, and the shortest interbirth intervals. Many morio traits may serve to save energy in these harsh environs, e.g., the greatest reliance on leaf and bark foods when fruit is scarce, the most rest, shortest day travel, smallest home ranges, reduced sociality and common terrestrial travel (in males). Evidence on E Kalimantan's morio is outdated and hints at other traits, however, so new study is needed. I chose to focus on ranging because it is organized around tracking orangutans' main resources, food and mates, so it offers a good overview of morio behavior.

Study is in Kutai National Park (see map) at a new site I was invited to establish. Many thought Kutai's orangutans were virtually eradicated but new surveys show surprisingly strong numbers (1000-2000). Our site, "Bendili", is at an elbow of the Sangatta River; the area's forest is far from pristine, but it is recovering well from damage and now offers a good mix of forest types and orangutan foods



We have been working at Bendili for a year, and to date findings are very promising. Within our study area, we have developed a transect system that allows us to search and monitor an area of 4-5 km². In this area, we already found 23 orangutans and followed 12 of them for several days. The age-sex mix is good (5 adult females with young, 9 young males, 3 adult males), and all are healthy and reproducing well.



Preliminary research data from our first year's work at Bendili suggest *morio* has longer day travel and larger home ranges, and terrestrial travel and foraging are common in females as well as males. These traits may owe to Bendili habitat, which includes areas rich in a palm and terrestrial herbs (e.g., ginger) that these orangutans eat regularly.

On the science side, this is important because it mirrors an African ape pattern: feeding on abundant terrestrial herbs is thought to underpin African apes' terrestrial feeding and travel, and may enable them to maintain social groups. Thus other ranging traits in Bendili's *morio* may follow suit (e.g., greater sociality). These Bendili *morio* traits have important implications if longer-term data confirm them. Significant terrestriality, for example, means these *morio* are great apes that moved to terrestrial resources directly from an arboreal life without the African apes' intermediate quadrupedal phase. This increases orangutans' value as living models for *Ardipithecus* and as a basis for evaluating the extent to which early hominin adaptations derived or diverged from ancestral African ape adaptations to marginal habitats.

On the conservation side, even though our current focus is research, our presence helps protect this area of the national park. For our first six months at Bendili, we encountered threats to the park almost monthly. We have seen or found traces of illegal hunting, bird collecting, logging, clearing, and planting gardens inside the national park. We immediately reported each problem to national park officials and they quickly apprehended the intruders. In recent months we have found fewer incursions, so our monitoring has helped reduce threats.

In addition, this project's aims include science for conservation. Locally, a common belief is that Kutai National Park is irretrievably damaged, a view that could easily justify removing its protection status and making it available to developers. What we find should contribute to identifying what is worth protecting in the national park, what needs protection, and at least for orangutans, how to design effective protection programs. In our small study area, we have already found several groups of a leaf monkey, *Presbytis hoseii*, that was thought to have been eradicated. We have already encountered a good range of other wildlife, so evidence is accumulating to show that damage to the national park has not irreparable: with time, both forest and the wildlife are recovering.

For orangutans, with time, we will be able to identify what foods are used and important used in this region, how far they range, and how they cope with habitat damage. This kind of information is essential to designing both protection programs and protection areas.



BOS CANADA CONSERVATION GRANTS

In 2010, we funded four very exciting projects, sketched below. They are now underway so reports will be published in our next newsletter.

<u>Panut Hadisiswoyo</u>. Human Wildlife Conflict Monitoring and Mitigation: The Facilitation of an Orangutan Task-Force and Conflict Mitigation Response Unit in North Sumatra, Indonesia

With increased human encroachment into orangutan habitats, conflicts between humans and orangutans in Sumatra are on the increase. This project aims to promote the conservation of orangutans though understanding how and when such conflicts take place, and to establish and manage a Human Orangutan Conflict Response Unit to investigate and help mitigate conflicts. In addition, this project will develop a best practices document for handing orangutan-human conflict.

Anne Russon. Ranging in East Bornean Orangutans

This project studies ranging in East Bornean orangutans at a new research site in Kutai National Park, East Kalimantan. Ranging offers a good window on essential features of orangutan lives: where they go and why (food, nesting, companions), and how they understand and navigate forest space and change over time. Findings should provide muchneeded updates on orangutan behavior in East Kalimantan, and they should aid conservation by improving monitoring in the study area and understanding orangutan roles in conflict with humans.

<u>Michael Reid.</u> A Serologic Survey of Tuberculosis (TB) in Semi-Captive Orangutans: Implications for Orangutan Conservation Medicine

This project tests the use of a new tuberculosis (TB) test that is suitable for use in the field. TB is greatly feared among those working on ape rehabilitation because it can cause illness and death in great apes, and it is a communicable disease. Worries that rehabilitant apes with TB will spread the disease to wild populations are especially relevant. The development of a new test that better suits orangutans can help to prevent the spread of the disease. Didik Prasetyo. Orangutan Research Information Center

The goal of this project is to create a website for orangutan research findings that are not published in international journals. Nearly 90% of studies of orangutan behaviour and ecology are not published in international scientific journals. Many of these studies have data that would be valuable to conservation and research. This website would make available a large amount of findings and information that otherwise may not be accessible. This will further our understanding of orangutans and their ecology.

Our next call for grant applications will be announced on our website early in 2011. We support research and conservation efforts through our grants program because we think that by learning more about orangutan behavior, and by teaching others what is learned, we will be better able to help assure the continuation of orangutans in the wild.

CONSERVATION GRANTS 2011

BOS Canada holds a small grants program to support projects that contribute to orangutan conservation. For 2011 we have a fund aimed for awards in the \$ 500 to \$1,000 CAD range. We encourage applications from colleagues and students, especially those from orangutan habitat countries for whom a small grant can provide valuable assistance to their conservation efforts.

> deadline for applications: March 31, 2011 for details, see www.orangutan.ca/conservation grants

THE THINGS THEY DO BY CHARMAINE QUINN



In 2008, at Sepilok orangutan rehabilitation project, Otan, a juvenile female rehabilitant about 6 years old, went missing at Platform 4. [Note from Anne: at that age, she would have been ready for semi-independent forest life but not real skilled at it yet]. Platform 4, where older rehabilitants with good forest skills range, is in a relatively remote area of the forest. Research assistants and volunteers systematically scoured the forest for Otan, searching and calling for her by name, but did not find her.

After two days of fruitless searching, the research assistants were at Platform 4 when they spotted Oscar approaching. Oscar was a very nice male about 12 years old, so adolescent to subadult (photo, right). What they saw him doing made them radio the Ranger at the Outdoor Nursery immediately. They radioed to the Ranger that they were watching Oscar carry Otan, who had a badly broken leg (possibly from a fall from a tree), to Platform 4. He left her there, where staff would have found her when they delivered daily supplemental provisions for the area's rehabilitants.

The assistants carried Otan back to the veterinary clinic, and from there she was sent to hospital for repairs. On my last visit, I saw Otan (photo, left); she is doing very well and back to climbing trees at Platform 4.



Page 10	BOS CANADA	NEWS 2010
BOS CAN	NADA DONATION	BOS
l would like to r to support oran	make a tax-deductible donation of \$ to BOS Canada ngutan protection projects.	Borneo Orangutan Society, Canada
Name:		
Address:		
Phone:	email:	
Send	d this form with your donation to BOS Canada, 74 Boultbee Av., Toron	to ON M4J IBI, Canada
	5 RR000	
	ww.orangutan.ca	

BOS Canada

74 Boultbee Ave., Toronto ON, M4J IBI, Canada

A registered Canadian Charity # 86282 4786 RR000