

Chapter 1 : Orangutan - Wikipedia

The Orangutan Care Center and Quarantine (OCCQ) in Central Indonesian Borneo is constantly evolving to best serve the needs of orangutans and other wildlife under the care of Orangutan Foundation International (OFI).

Taxonomy[edit] The Bornean orangutan and the Sumatran orangutan diverged about , years ago, [3] with a continued low level of gene flow between them since then. The Bornean orangutan has three subspecies: The population currently listed as P. If this is confirmed, P. This species was originally discovered by native Malaysians. There are several mentions of orangutans in Malaysian folklore. However, this species was originally named and described by the notable zoologist Carl Linneus in Its original name was *Simia satyrus*, meaning "satyr monkey", but was changed when scientists discovered that not all orangutans are one species. The holotype of this organism is located in the British Museum in London. The genus name *Pongo* is derived from the Bantu word *mpongo* used to indicate a large primate. It was originally used to describe chimpanzees in Western African dialects. It has grey skin, a coarse, shaggy, reddish coat [19] and prehensile , grasping hands and feet. It also has large, fatty cheek pads known as flanges as well as a pendulous throat sac. Bornean orangutans are highly sexually dimorphic and have several features that differ between males and females. Males have much larger cheek pads, or flanges, that are composed of muscle and large amounts of fat. In females, the flanges are mostly composed of muscle. Males have relatively larger canines and premolars. Males have a more pronounced beard and mustache. The throat sac in males is also considerably larger. There are two body types for sexually mature males: Larger males are more dominant but smaller males still breed successfully. There is little sexual dimorphism at birth. It differed from modern orangutans only in that its body was proportionately smaller compared to its head. This fossil and others confirm that orangutans once inhabited continental Southeast Asia even though currently, Bornean orangutans are only found in Malaysia. They primarily inhabit peat swamp forests, tropical heath forests, and mixed dipterocarp forests. Two or three orangutans with overlapping territories may interact, but only for short periods of time. The Bornean orangutan has a lifespan of 35–45 years in the wild; [3] in captivity it can live to be about This may be in part because no large terrestrial predators could threaten an orangutan in Borneo. In Sumatra, orangutans must face predation by the fierce Sumatran tiger. Bornean orangutans have been sighted using spears to attempt unsuccessfully to catch fish. Subadult males unflanged will try to mate with any female and will be successful around half the time. Offspring are weaned at about four years, but this could be much longer, and soon after they start their adolescent stage of exploring, but always within sight of their mother. On average, juveniles do not become completely independent until they are about seven years of age. The birth rate for orangutans has been decreasing largely due to a lack of sufficient nutrients as a result of habitat loss. A study on female orangutans in free-ranging rehabilitation programs found that individuals that were supplemented with food resources had shorter interbirth intervals, as well as a reduced age, at first birth.

Chapter 2 : Orangutan Behavior - Animal Facts and Information

The orangutan is the largest animal in existence that is arboreal or lives in the trees. They spend nearly sixty percent or more of their time foraging for food and more than 90% of their food is found in tropical canopies.

Orangutan Distribution Orangutans are the only great ape outside of Africa and they are uniquely adapted to the tropical forests of Southeast Asia. As climate slowly changed over nearly 1. Today orangutans are patchily distributed in fragmented lowland forests in Borneo and Sumatra. Tanjung Puting contains one of the largest and most concentrated populations of wild orangutans in the world. Current Population Estimates The most recent population estimate for *Pongo abelii* is around 7, individuals 2. For Bornean orangutans, numbers are between 45, and 69, individuals 3. With substantial habitat losses since , when these estimates were obtained, it is likely that Bornean orangutan populations are substantially lower 4. Galdikas estimates there are less than 40, Bornean orangutans in the wild. Two Species Currently two orangutan species are recognized: *Pongo abelii* representing the Sumatran lineage and *Pongo pygmaeus* representing the Bornean lineage. Recently, researchers have found that these two orangutan lineages differ more than the chimpanzee and the bonobo 5. Sumatran orangutan *Pongo abelii* and *Pongo pygmaeus* have been geographically isolated for at least 10, years by the Java Sea and large rivers on the Sunda shelf. But genetic analysis suggests that the species diverged long before this, when large distances effectively separated Bornean and Sumatran populations. The appearance of the Bornean and Sumatran orangutan can be quite different. Bornean orangutans tend to have dark red or orange hair compared to the lighter colored Sumatran orangutans whose hair tends towards blonde, yellow, or a lighter shade of orange. Bornean orangutans rarely display the fine, dense facial hair characteristic of their bearded Sumatran cousins. Males differ more markedly than females, with many Bornean adult males having cheek pads that curve forward rather than lie flat on the face, and larger throat pouches compared to Sumatran orangutans. Bornean orangutan Behaviorally, the Bornean and Sumatran orangutans show some differences, probably due to the ecological differences in their forest homes. Bornean forests are relatively fruit-poor. Since orangutans depend on large supplies of sugary, pulpy, ripe fruit, adult Bornean orangutans seem to spend more time living a semi-solitary lifestyle compared to Sumatran orangutans. This may account for the observation that tool use seems less prevalent among wild Bornean orangutans compared to their more social Sumatran cousins. Despite some differences in morphology and behavior between *Pongo abelii* and *Pongo pygmaeus*, all orangutans share similar life histories and respond to the same major ecological and anthropogenic factors. Life History Like other apes, orangutans have a slow life history which makes it difficult for them to recover from severe population losses 6. The average age of first breeding for females is around 15 years with a maximum reproductive age of 45 to 50 years 7. Unique to orangutans, females care for dependent offspring for at least six years 8 , and have an interbirth interval of eight years 9 , the longest of any mammal. The ecological cost of associating with multiple offspring best explains the long interbirth period 6. Males and Females Orangutans are large-bodied and exhibit extreme sexual dimorphism. Subadult males are about the size of adult females. At maturity, females may weigh about 40kg. At sexual maturity, males are about twice this size, weighing more than 80kg. Some wild males may actually weigh over kg while in captivity males have weighed over kg. Adult males also express secondary sexual characteristics including wide cheek pads and a well-developed throat sac which enables them to make periodic vocalizations known as long calls 10,8. A Life in the Trees Despite their large body size, orangutans are almost exclusively canopy-dwelling. Orangutans travel through the canopy where they find most of their food fruit, young leaves, and bark. Females are more exclusively arboreal than males and Galdikas 8 has suggested several hypotheses. There is a higher energetic cost associated with carrying infants, so females may tend to stay in the canopy rather than spend energy climbing down and back up into the trees. Infants and juveniles may also be in greater danger on the ground, where pigs can attack them. In contrast, males, which travel alone are free to exploit more resources on the ground. This may explain why males are often observed feeding on termite nests, a food which females eat much less frequently “ except when pregnant. Then they tend to forage on termites in the canopy. Social Behavior Orangutans are semi-solitary since fruit is not abundant enough to

allow orangutans to be permanently gregarious. However, they do form parties to gain social benefits when there is an abundance of fruit 6. Galdikas 8 have noted a degree of sociality among adult Bornean females at Tanjung Puting. In addition, most observers, such as Galdikas 11 , have documented that independent immature orangutans, particularly adolescent females, are almost gregarious and social compared to adult individuals of their species. Adult females are often accompanied by their offspring, and even after reaching maturity, young adult females are known to establish home ranges near or overlapping with their mothers 8. This dispersal pattern may be considered a variation of female philopatry 6. In contrast, males tend to disappear from the area where they were born as they mature and observations of wild orangutans suggest males are more likely to disperse long-distances Females, juveniles and subadult males may encounter and tolerate one another when temporarily congregating in a location with abundant fruit. In contrast, adult males do not tolerate each other and space themselves using long calls 8, 10, Mating System The orangutan mating system is called short term polygyny. This means individuals can select new mates every year. Both males and females may have multiple mates, although individuals may breed with the same mate over more than one pregnancy. Adult males and females normally mate during consortship often initiated by females 8, Forced copulations with females do occur, most often by subadult males However, many offspring are conceived during consortship with adult males, indicating female mate selection may be an important factor in reproductive behavior. Daytime Activity Long-term observations of wild orangutans show that more than half their daytime activity is spent feeding. These numbers are averaged from studies by Rodman 16 , Knott 17 and Galdikas 8. However, orangutans may travel, rest, and forage in association with other individuals without overt social interaction. Feeding behavior 8,11,12,18,19 , ranging behavior 17,21 and response to disturbance 20,21 appear to be the primary factors that determine orangutan distribution within forest habitat. Kluwer Academic Publishers, Dordrecht. Orangutan population and habitat viability assessment: Bornean orangutan *Pongo pygmaeus* in: Miles eds World atlas of great apes and their conservation. University of California Press, Berkeley. Downloaded on 15 June Demographic History and Genetic Differentiation in Apes. Current Biology , Volume 16 The behavioral ecology and conservation of the orangutan *Pongo pygmaeus*: A tale of two islands. Evolutionary Anthropology Marshall, A. Orangutan population biology, life history, and conservation: Orangutan ecology, evolution, behavior and conservation. Modern adaptations in orangutans? Nature , The behavior and ecology of wild orangutans *Pongo pygmaeus*. Orang utan diet, range and activity at Tanjung Puting, Central Borneo. International Journal of Primatology 9: Determinants of orangutan density in the dryland forests of the Leuser Ecosystem. The orangutan long call and snag crashing at Tanjung Puting Reserve. Orangutan adaptation at Tanjung Puting Reserve: PP in The Great Apes. Diversity and consistency in ecology and behavior. Oxford University Press p Orangutan behavior and ecology. Fuentes eds The nonhuman primates. Population estimates and habitat preferences of orangutans based on line transects of nests. Plenum Press, New York, pp Seasonal movements in the Sumatran orangutan *Pongo pygmaeus abelii* and consequences for conservation. Orangutan population density, forest structure and fruit availability in hand-logged and unlogged peat swamp forests in West Kalimantan, Indonesia. Population status of the Bornean orang-utan *Pongo pygmaeus* in the Sebangau peat swamp forest, Central Kalimantan, Indonesia. Biological Conservation pp.

Chapter 3 : Primate Factsheets: Orangutan (Pongo) Taxonomy, Morphology, & Ecology

Orangutans gather and feed in large fruiting trees with abundant fruit crops (van Schaik & van Hooff). These feeding aggregations include both resident (adult males and females) and non-resident (subadult males and females) orangutans, and individuals arrive and leave independently.

Orangutans are found in the tropical forests of Sumatra and Borneo. They are the most arboreal of the great apes and move amongst the safety of the trees from one feeding site to the next. They are so well adapted to arboreal life that they cannot place their feet on the ground, instead they walk on the outside of their curved foot. There is a scattered population of orangutan in Indonesian Borneo, Malaysia Borneo and northern Sumatra. There are several different characteristics between the two subspecies of orangutans and it has recently been suggested that they may be a separate species. The Borneo male has relatively large cheek pads, a tremendous laryngeal sac and a square shaped face. The Sumatran male has small pads and laryngeal sac, a ginger coloured moustache, a pronounced beard, and a diamond shaped face. Individuals can also be distinguished chromosomally, biochemically, and by their cranial characteristics. There is a great deal of individual variety in the orangutan. Orangutan males, however, appear to be totally intolerant of one another, especially the Borneo males who are even aggressive towards females and infants. However, the Sumatran males tend to stay with females for a longer period of time usually until the birth of the infant. They may stay longer with their partner because of the presence of large predators absent in the Borneo habitat. The orangutan has a menstrual cycle of days, menstruation lasting days. The Gestation period lasts slightly less than nine months. Offspring pass through three stages, infancy , juvenile , and adolescence. Mother young relationship lasts for a long time, the young usually stay with their mother until they are mature. Female Orangutans are not sexually mature or fully grown until the age of twelve and will not have their first offspring until they are at least fourteen. Males become sexually mature and fully grown at the age of fifteen. The cheek flanges of the male easily recognize the differences between adults and semi-adults. The flanges in the Boreal male curve out ward from the face and develop around the age of eight and are not completely grown until the age of fifteen. Sumatra flange development begins at the age of ten and is not complete until the early twenties. The flange in the Sumatra orangutan lie flat against the face and give a wide facial appearance especially in the mid facial region. The life expectancy of orangutans in the wild is not known, but captive orangutans have been known to live up to fifty years. Orangutans are sexually dimorphic. Males are approximately twice the size of females and weigh about lbs. It is believed that the males larger size may be an adaptation for mating because there is strong competition among males for females. The long call of the Borneo male is long and drawn out where as the Sumatran is much shorter and has a faster tempo. The difference may be attributed to the larger throat pouch the Borneo has. The reason for the different calls is unclear. They may be related to the terrain each subspecies inhabits. The faster call of the Sumatran may be more effective in the rugged, mountainous terrain. The longer call of the Borneo may be due to the wide distribution of this race. A large portion of an orangutans day is spent looking for and consuming food. Their diet primarily consists of fruit but they also eat leaves, bark, flowers, insects, and birds eggs. One of their preferred foods is the fruit off of the durian tree, it is supposed to taste like sweet garlic. After they have finished eating and bedtime comes around the orangutans build themselves a new nest forty to fifty feet up in a tree made of boughs. Like the other great apes chimpanzees and gorillas , orangutans are highly intelligent. Tests have indicated that their intelligence is relatively similar. Wild orangutans use their intelligence to solve problems usually related to arboreal living and food gathering. In captivity, however, they have been trained to perform tricks and to use sign language. They have also made tools to throw at humans, get food, and gain leverage. Today, the total number of orangutans ranges between , They are now endangered primarily because their habitat continues to be destroyed and the practice of killing the mother in order to capture a baby for animal trade. Even though they are protected by international laws, it is difficult to enforce them. Orangutans are inhabit the forests on the islands Sumatra and Borneo. Through evolution and reproductive and geological isolation two sub species have emerged Borneo and Sumatra. They generally live alone with the exception of

the long term relationship between a female and her young. When orangutans do meet one another they are very tolerant and aggression is rare, unless two mature males meet each other. Orangutans are generally fruit eaters, because fruit is abundant in the forests they inhabit. They lead a very solitary life. The population continues to decline because of habitat loss, and fewer than 30,000 orangutans are thought to remain in the wild.

Chapter 4 : Bornean orangutan - Wikipedia

Orangutans make leafy nests in the trees to sleep in and rest. They make a new nest just about every night (occasionally they will repair an old one they find), and in Sumatra they make one most days too, around midday, for a kind of siesta.

Social Organization Orangutans are semi-solitary species but remain, to some degree, somewhat social. Wild orangutan fathers play no direct role in the upbringing of their offspring. Non-receptive adult females associate with their young, with other adult females, and with adolescents who are not necessarily their own and generally avoid mature males. The mother-young relationship lasts for many years, whereas the time spent with other orangutans is relatively short. Subadult males usually associate with females, particularly with adolescents, but are not generally aggressive towards other males. Adolescent females travel together, especially when age differences are minimal. This semi-solitary social system may have evolved as a result of a ripe fruit diet, scattered food distribution, and a lack of large arboreal predators. Tigers in Sumatra are terrestrial. Male-male competition for access to sexually receptive females is a major factor in orangutan adaptation. Sometimes the sound of a long call can carry for almost a mile. Adult male orangutans are intolerant of each other, and the encounter between two flanged adult males usually results in either aggression or avoidance. Combats almost always take place when two cheekpadded males are in the presence of a sexually receptive female. These combats may last for a few minutes especially if the two males have fought before or an hour or more. Males may be severely wounded during these combats. Orangutan females rarely exhibit violent aggression of the sort seen in combat, and hence do not sustain such injuries. Orangutans have the slowest known life histories of any mammal. They take the longest time to grow up and they are the slowest to reproduce. The gestation period is approximately eight and a half months. Twinning occurs but is rare. In forty years of observation, twins were only seen once at Tanjung Puting National Park. The mother was an older, free-ranging, wild born ex-captive orangutan. One of the twins was born weak and died shortly after birth. Wild female orangutans usually become sexually active at approximately 12 years, but they will often have their first offspring only at years of age. At Tanjung Puting wild females give birth on average every 7. Infant orangutans stay in close contact with their mothers for a long time. They also use leafy branches to shelter themselves from rain and sun, and sometimes even drape large leaves over themselves like a poncho. Even when young orangutans are too old to be carried and fed by their mother, they may still remain close to her, traveling with her, eating, and resting in the same trees, until they are about 10 years old. Once they become independent, they will be alone or in the company of other immature orangutans. Such prolonged association between mother and offspring is rare among mammals. Probably only humans have a more intensive relationship with their mothers. Young orangutans learn almost everything from their mothers, including: Also, mothers probably protect young orangutans from predators such as clouded leopards and pythons in Borneo, and tigers in Sumatra. A flanged male has big cheek pads on the sides of his face and a large pendulous throat sack under his chin. An unflanged male has neither of these traits, and his body is usually smaller. Unflanged males are sexually mature and fully able to father offspring; females, however, seem to prefer to mate with the flanged males. It is not fully understood exactly when and why a mature male undergoes the transformation from unflanged to flanged, or even if every male undergoes this transformation although it seems likely that he does eventually. Thus, not until the dominant flanged male dies, moves away, or is defeated, or the subadult male himself moves away or stays low, can the unflanged male develop his cheek pads and large size. Only humans have a more intensive relationship with their mothers. Most of their lives are spent in trees where orangutans travel from branch to branch by climbing, clambering, and brachiating. Although mostly arboreal, males in Borneo occasionally travel on the ground to move between stands of trees. At Tanjung Puting adult males have traveled over two miles on the ground during the course of a day. Sometimes orangutans will make a mid-day nest for napping. Occasionally, they will also reuse an old nest, adding new branches. Tool Use Orangutans have high cognitive abilities comparable to the other great apes. This high level of intelligence manifests itself in tool-use and even the making of simple tools in the

wild. Some tool use is idiosyncratic but other kinds of tool use represent cultural traditions in orangutan populations. Orangutans have been observed making simple tools to scratch themselves. In Sumatra wild orangutans use tools to extract seeds from a hard shelled species of fruit. In captivity an orangutan was taught to chip a stone handaxe. Culture A flanged orangutan male hanging from a small tree Not long ago many people thought culture was unique to the human species. However, in recent years scientists have found increasing evidence of socially learned traditions elsewhere in the animal kingdom. In a group of researchers, including Dr. According to the report which appeared in the journal Science, these practices are learned from other group members and passed down through the generations. In parts of Borneo, for example, orangutans use handfuls of leaves as napkins to wipe their chins while orangutans in parts of Sumatra use leaves as gloves, helping them handle spiny fruits and branches, or as seat cushions in spiny trees.

Chapter 5 : Orangutan mating behavior and strategies - Oxford Scholarship

Pp. xii, (1), ; 11 color photos, numerous black-and-white photos and detailed line-drawings. Publisher's original black cloth, lettered in gilt on the spine and the front cover, color pictorial dust jacket, 8vo.

Sumatran orangutan Translated from Malay, orangutan means "person of the forest," but it is also used to denote a madman or savage human and is not the word for orangutan used by local people Rijkssen The Malay word for orangutan is maias or mawas Rijkssen Sumatran orangutans are thinner than their Bornean relatives, have paler red coats, longer hair, and longer faces. Adult males have mustaches and prominent cheek pads, called flanges, that are covered with fine, white hair. Both sexes have long beards Courtenay et al. Bornean orangutans have coarse, long hair that can be orange, brown, or maroon. Infants are born with pink faces but as they age, the pigment changes to dark brown or almost black skin. Males have large, pendulous throat pouches and, compared to the Sumatran species, their cheek pads are markedly larger, covered in short bristly hair Courtenay et al. Males and females of both species are highly sexually dimorphic , with males weighing, on average, 87 kg lb and measuring mm 3. *Pongo pygmaeus* Orangutans climb using both hands and both feet to hold onto branches as they move horizontally through the rain forest canopy Rodman When they move along the ground, orangutans walk quadrupedally on their fists, not their knuckles as is seen in the other great apes, and they are occasionally seen moving bipedally Rowe Orangutans can live between 50 and 60 years in the wild Rowe Borneo is the third largest island in the world and orangutans occur at low density in all suitable habitat in eight regions of Borneo: Orangutans are mainly found in northwestern Sumatra in the Leuser Ecosystem formerly Gunung Leuser National Park and the surrounding area, and may be thinly spread down the west coast of the island van Schaik et al. Estimates of the orangutan population on Borneo suggest that there are about 55, in the wild, while the Sumatran orangutan is thought to number 7, individuals Singleton et al. Studies on wild orangutans have been on-going for more than 30 years. Pioneering ecological and behavioral research on wild orangutans at the Ketambe study site in Gunung Leuser was conducted by H. The two major types of forest on Borneo are peat swamp forest and lowland dipterocarp forest Rodman Orangutans utilize primary tropical rain forest and old secondary forest at low elevations, though they may also venture into grasslands, cultivated fields, gardens, young secondary forest, and shallow lakes Galdikas Rainfall, averaging mm Orangutans on Borneo occupy all forested habitat except for northern Sarawak and Brunei and the region east of Sungai Barito and south of Sungai Mahakam. They are also thought to be restricted by elevation and are not found in forests at elevations greater than m ft Husson pers. They are found in lower population densities at higher elevations, and lowland dipterocarp, freshwater, and peat swamp forests are of primary importance. Annual rainfall is about mm 9. Average annual temperature is Peat swamps support medium-densities of orangutans and they are found in the lowest densities in dipterocarp forests Husson pers. They have been recorded eating buds, open flowers, young leaves, bark, sap, vines, orchids, reed roots, bird eggs, spider webs, termites, caterpillars, ants, fungi, honey, and other various plant parts Rijkssen ; Galdikas Extreme variability in the abundance of fruit from season to season and year to year is typical of dipterocarp rainforests. Mast fruiting occurs every two to 10 years and is a phenomenon in which large numbers of trees fruit simultaneously despite no seasonal change in temperature or rainfall Knott During this time, orangutans gorge themselves with fruit, greatly exceeding their daily caloric intake requirements and putting on additional fat stores. In periods of high fruit abundance, males consume more calories and spend more time feeding per day than females. This propensity to overeat during times of food abundance and efficiency of storing fat reserves may be why captive orangutans often struggle with obesity Knott When mast fruiting does not occur during a year, there is still an annual fruit peak. Fruit is widely available during the beginning and end of the rainy season December and May and is scarce by the end of the dry season August Galdikas ; Knott Fruit is always preferentially eaten, but when fruits are in short supply, orangutans forage opportunistically and depend more heavily on other plant foods such as bark, pith, leaves, flowers, and insects Knott Sumatran orangutans heavily prefer figs over any fruits, especially *Ficus* species, though figs are largely unavailable to lowland ranging Bornean orangutans Rijkssen ; Galdikas Their daily activity patterns

show two peaks, one in the morning and another in late afternoon. After leaving their night nest, orangutans spend two to three hours vigorously feeding in the morning, then rest during the midday hours, travel during the late afternoon, and, in the early evening, prepare their night nests Rijkssen ; Galdikas Day ranges vary between 90 and m. Day range length is directly proportional to home range size; orangutans with larger home ranges have larger day ranges and those with smaller ones have smaller day ranges Rodman In the peat and lowland swamp forests of Borneo, where faunal diversity is great, home ranges for females are between 3. On Sumatra, where orangutans inhabit higher elevations and swamp forests with less diversity, average female home ranges tend to be larger, closer to 8. Sumatran orangutans are subject to predation by tigers, clouded leopards, hunting dogs, and crocodiles, but tigers constitute the major predatory threat. Clouded leopards are capable of killing Sumatran orangutan adolescents and small adult females, but have not been known to kill adult males Rijkssen The presence of predators is probably the reason that Sumatran orangutans are rarely seen venturing onto the ground. Bornean orangutans, on the other hand, are not subject to predation by large felids , and are seen more frequently on the ground than the Sumatran species Rijkssen ; Galdikas June 13, Written by Kristina Cawthon Lang. Reviewed by Simon Husson. Cite this page as: Accessed November 9.

Chapter 6 : Orangutan Behavior – Orangutan Foundation International

Orangutan Behavior Social Structure. Unusual in primates, orangutans are primarily solitary (live alone). Social behavior varies between Bornean and Sumatran orangutans in that Sumatran orangutans have access to more fruit and sharing opportunities, leading to greater sociability.

The population currently listed as *P. abelii* would be a subspecies of *P.* It is unclear if these belong to *P.* Subsequently, the Bornean species had its genome sequenced. Genetic diversity was found to be lower in Bornean orangutans *P.* Also, the orangutan genome was found to have evolved much more slowly than chimpanzee and human DNA. The present range of Tapanuli orangutans is thought to be close to the point where ancestral orangutans first entered what is now Indonesia from mainland Asia. An orangutan has a large, bulky body, a thick neck, very long, strong arms, short, bowed legs, and no tail. It is mostly covered with long, reddish-brown hair and grey-black skin. Sumatran orangutans have more sparse and lighter-coloured coats. Though largely hairless, their faces can develop some hair in males, giving them a moustache. The cheek flaps are made mostly of fatty tissue and are supported by the musculature of the face. The resting configuration of the fingers is curved, creating a suspensory hook grip. Since their hip joints have the same flexibility as their shoulder and arm joints, orangutans have less restriction in the movements of their legs than humans have. Both species can be found in mountainous and lowland swampy areas. Play media Wild orangutan in the Danum Valley Sabah, Malaysia, Borneo island Most of the day is spent feeding, resting, and travelling. They start the day feeding for 2–3 hours in the morning. They rest during midday then travel in the late afternoon. When evening arrives, they begin to prepare their nests for the night. Other predators include clouded leopards, wild dogs and crocodiles. Orangutans are opportunistic foragers, and their diets vary markedly from month to month. Ficus fruits are commonly eaten and are easy to harvest and digest. Lowland dipterocarp forests are preferred by orangutans because of their plentiful fruit. In the low-fruit season, they eat whatever fruit is available in addition to tree bark and leaves, with daily intake at only 2, calories. Together with a long lactation period, orangutans also have a long birth interval. There are three main reasons for this dietary behaviour: Orangutans live a more solitary lifestyle than the other great apes. Most social bonds occur between adult females and their dependent and weaned offspring. Adult males and independent adolescents of both sexes tend to live alone. Resident females live with their offspring in defined home ranges that overlap with those of other adult females, which may be their immediate relatives. One to several resident female home ranges are encompassed within the home range of a resident male, who is their main mating partner. However, this behaviour ends at adulthood. The social structure of the orangutan can be best described as solitary but social. Interactions between adult females range from friendly to avoidance to antagonistic. Resident males may have overlapping ranges and interactions between them tend to be hostile. However, they do not seem to have any special social bonds with them. This phase lasts until a male can challenge and displace a dominant, resident male from his home range. The fruits tend to be abundant, so competition is low and individuals may engage in social interactions. They also tend to be consortships between an adult male and female. Males will make long calls, both to attract females and advertise themselves to other males. Infants make soft hoots when distressed. Orangutans are also known to blow raspberries. Orangutans build nests specialized for both day or night use. In fact, nest-building is a leading cause in young orangutans leaving their mother for the first time. From six months of age onwards, orangutans practice nest-building and gain proficiency by the time they are three years old. Initially, a suitable tree is located, orangutans being selective about sites though many tree species are used. The nest is then built by pulling together branches under them and joining them at a point. After the foundation has been built, the orangutan bends smaller, leafy branches onto the foundation; this serves the purpose of and is termed the "mattress". After this, orangutans stand and braid the tips of branches into the mattress. Doing this increases the stability of the nest and forms the final act of nest-building. In addition, orangutans may add additional features, such as "pillows", "blankets", "roofs" and "bunk-beds" to their nests. The transformation from unflanged to flanged can occur very quickly. Unflanged and flanged males have two different mating

strategies. Flanged males attract oestrous females with their characteristic long calls. While both strategies are successful, [51] females prefer to mate with flanged males and seek their company for protection against unflanged males. Female orangutans experience their first ovulatory cycle around 5. These occur earlier in females with more body fat. Females do most of the caring and socializing of the young. A female often has an older offspring with her to help in socializing the infant. The mother will carry the infant during travelling, as well as feed it and sleep with it in the same night nest. In the following months, the time an infant spends with its mother decreases. Adolescent orangutans will socialize with their peers while still having contact with their mothers. Experiments suggest they can figure out some invisible displacement problems with a representational strategy. Scientists hope the data they collect will help researchers learn about socialising patterns, such as whether the apes learn behaviours through trial and error or by mimicry, and point to new conservation strategies. Orangutans are the first nonhuman species documented to do so. The orangutans adjusted their tools according to the nature of the task at hand, and preference was given to oral tool use. Knott further investigated tool use in different wild orangutan populations. They compared geographic variations in tool use related to the processing of Neesia fruit. The orangutans of Suaq Balimbing P. The orangutans at Suaq Balimbing live in dense groups and are socially tolerant; this creates good conditions for social transmission. The apes may employ this method of amplification to deceive the listener into believing they are larger animals. The evidence suggested the differences were cultural: Social contact facilitates cultural transmission. The study employed the techniques of psychologist David Premack , who used plastic tokens to teach linguistic skills to the chimpanzee, Sarah. Allen Gardner and Beatrix Gardner, who taught the chimpanzee, Washoe , in the late s. Orangutans were known to the native people of Sumatra and Borneo for millennia. While some communities hunted them for food and decoration, others placed taboos on such practices. Some folk tales involve orangutans mating with and kidnapping humans. Although animal rights groups interpreted the ruling as applicable to all species in captivity, legal specialists considered the ruling only applicable to hominid apes due to their genetic similarities to humans. Its range has become patchy throughout Borneo, being largely extirpated from various parts of the island, including the southeast. The table below shows a breakdown of the species and subspecies and their estimated populations from this, or in the case of P. A video of orangutans at a rehabilitation centre in Borneo.

Chapter 7 : Orangutan Behaviour Project - Borneo Nature Foundation

Orangutans are a species with a very pronounced sexual dimorphism, in that fully grown males are about twice the size of females, but adult, sexually mature males come in two distinct morphs.

There are two main types of orangutan; the Sumatran and the Bornean and they are both from Asia. They are often part of behavioral studies because they are considered one of the smartest mammals in the world.

Tool Usage Of Orangutans These apes are very smart with a thinking process that is comparable to the rest of the ape species. They have such a high level of intelligence that it manifests in the use of tools within orangutan social groups. The tool usage can be idiosyncratic or what appears to represent cultural traditions within specific orangutan societies. The orangutan has been seen making tools simple to use for scratching themselves. They have also been seen using branches to shelter themselves from the rain and sometimes drape leaves from themselves like a poncho.

Orangutan hanging Culture It is also being discovered that orangutans have a culture. Birute Mary Galdikas found twenty-four behaviors present in certain populations of orangutans but not in others. The habits are learned from other group members and passed along. One thing that was noticed was the different ways two different groups used leaves; one for gloves the other for wiping their chins.

Building Nests Another surprising behavior orangutans have is nest building. Sometimes, twice a day an orangutan will construct a new sleeping area. One time for an afternoon nap and the other for their bedtime and nearly every time they are fresh. These are generally about 15 or even feet high in a tree.

Swinging From The Tops Of Tress The orangutan is the largest animal in existence that is arboreal or lives in the trees. It only makes sense that these amazing creatures stay in the trees.

Orangutan Society They are an animal that is primarily solitary. A flanged sexually mature male is the most solitary staying alone most of the time. Any socializing a flanged male does is usually interacting with groups to find a female to copulate with. A mother and her children can form another small group. Additionally, sub-adolescent males and females will form their own groups. They are pendulous laryngeal sacs from which they can make a long call to attract potential mates. The long call not only alerts any available females, it will also warn other males that this area is owned. Sexually mature male orangutans are completely intolerant of one another and that can result in heavy battles.

Babies The mother baby relationship of an orangutan and her baby is the most complex short of human nature. The baby is completely dependent on mother for everything for nearly two years. The mother has a menstruation every 32 days and it lasts for three or four days. When she is pregnant she will be so between eight and nine and half months. When a baby is born it will depend on its mother for everything. Orangutans have the longest infant development period of all the great apes.

Learn about the size, diet, population, range, behavior and other fascinating facts about orangutans.

Adult males and independent adolescents of both sexes range alone while adult females range with their dependent and weaned offspring (Boekhorst et al.). As subadults, transient males and females may travel in very small groups together, but this does not extend into adulthood. Referred to as resident females, adult females and their infant and juvenile offspring live in discrete home ranges that overlap with other adult females that may be their mothers or sisters and within the larger home ranges of an adult male with which they preferentially mate (Boekhorst et al.). A resident male is one that has a home range that envelops the ranges of one to several adult females and he is considered the primary breeder for those females within his range. Non-resident males, both subadult and adult, and females range broadly either alone or in groups of a few individuals (Rijksen; Boekhorst et al.). The overlap of the home ranges of males and females means that orangutans of both sexes encounter each other while traveling and feeding, and may have brief social interactions (Boekhorst et al.). Adult females that encounter one another can be aggressive, mutually avoid each other, or have seemingly affable relationships (Rijksen; Galdikas). Adult males also have overlap in their ranges and when they meet, encounters between them are usually characterized by agonistic displays. One type of orangutan social group is formed when resident adult males and adult females form a consortship group for a few days, weeks, or even months after copulation. It is perhaps a better description of orangutan social organization and behavior to say that they are solitary but social rather than semi-solitary (Galdikas).

Pongo pygmaeus Dispersal patterns of orangutans revolve, to some degree, around female philopatry. There is no evidence that females exhibit territoriality. Male-male competition for mates is quite intense because of constraints on female reproductive potential and wide spatial distribution (Mitani; Rodman). Dominance hierarchies are formed and maintained between adult males that regularly encounter one another and the more dominant males are usually the largest and have the best body condition (van Schaik et al.). Adult males are always dominant over subadult males (Fox). The social structure of orangutans is related, in some capacity, to their body size and diet. As a result, there is evidence for individual-based fission-fusion grouping where animals associate in parties on a fairly regular basis, but mean party size tends to remain very small (van Schaik). The two types of social parties seen in orangutans are feeding aggregations and travel bands. These feeding aggregations include both resident adult males and females and non-resident subadult males and females (orangutans), and individuals arrive and leave independently. Because of the large quantity of fruit available in a single location, competition for resources is decreased and individuals may benefit from social contact (van Schaik). Orangutans also form travel bands, in which individuals coordinate travel between food sources for a few days at a time (Mitani et al.). They are seen doing this only when there is a high density of fruit patches, during a mast fruiting for example, and travel bands usually only consist of a few individuals (Sugardjito et al.). Most commonly, these groups are mating consortships, comprised of one adult male and female traveling together and mating (van Schaik et al.).

Among female orangutans, menarche occurs between 5 and 15 years. Menarche seemingly occurs earlier in captive orangutans than in wild orangutans, though the absence of a sexual swelling may affect estimates in the wild (Knott). There is a period of adolescent infertility, as is seen in the other great apes, but it is unknown how long this lasts among female orangutans. There is some evidence that it persists for one to four years (Galdikas; Knott). Orangutans exhibit the longest interbirth intervals of all great apes with about eight years between births (Galdikas). Because of this sensitivity to ecological conditions, females with overlapping home ranges exhibit rough reproductive synchrony (Galdikas).

Pongo pygmaeus Male orangutans have a particularly interesting bimodal physical development, referred to as bimaturation or arrested development, which is influenced by the social context in which they live. Sexual maturity occurs between eight and 15 years in males, though they do not exhibit the secondary sexual characteristics or characteristic long-calls of a socially mature adult male until they are between 15 and 20 years (Rijksen). Subadult, or unflanged, males ages eight to 15 have fully descended testicles and are capable of reproducing but remain in a morphological state quite similar to adult females. The shift from unflanged to

flanged appearance can occur rapidly, within a few months. Along with the shift in physical appearance comes a shift in mating strategy. Unflanged males do not have a secure territory and are transient, roaming over wide areas and searching for receptive adult females. When they encounter a female in estrus, they force copulation and successfully impregnate her. This rape behavior is different than the strategy of a flanged male that uses long-calls to advertise his location and waits for receptive females to find him Utami et al. Because females preferentially mate with flanged males, this process of sit-and-wait is effective for fully developed males. Females may also seek out flanged males for protection from sexual harassment by unflanged males Fox Both male strategies are successful and frequently observed in and ex situ; in one study, about half of the infants born in one study group were sired by unflanged males Utami et al. The mechanisms behind the evolution of this unusual characteristic of orangutan development are not yet fully understood. The orangutan mother is the primary care provider and instrument of socialization for her offspring. The strongest, most salient social group among orangutans involves an adult female and her dependent offspring. From birth to about two years, an infant orangutan is completely dependent on its mother, always being carried during travel, depending on her for food, and sleeping in the same night nest as her Rijksen For the first four months, the two never break contact and the infant is carried ventro-ventral. The juvenile period lasts from about two to five years of age and the young orangutan begins to take short exploratory trips from its mother, but is always in visual contact with her, and play becomes increasingly important with peers and with its mother Rijksen This is also the age range in which mothers allow less frequent nursing. The adolescent stage starts about age five and lasts until age eight. While adolescents still have frequent contact with their mothers, they actively seek peers and play and travel with peer groups Rijksen The adolescent male orangutan remains socially immature, though sexually mature, and actively avoids contact with adult males. Once it leaves its mother, it begins its transient stage which lasts until it is able to displace a resident, flanged male, at which point it will develop the flanged appearance and will be considered socially adult. Utami Atmoko and S. Geographic Variation in Behavioral Ecology and Conservation, ed. Oxford University Press, There is some evidence that the long-call plays an important role in the suppression of development among adolescent and subadult males. Long-calls are made spontaneously by males, unlike the other characteristic call of adult males which is used under very specific conditions. The fast-call is elicited post-contact or post-conflict. There is little information on other orangutan vocalizations; because of their semi-solitary lifestyle, vocal communication may not as important as it is for other apes. Like the other great apes, orangutans are highly intelligent and closely related to humans and as such they have been the focus of language acquisition studies as researchers try to understand the origins of human language. Fewer attempts have been made to teach orangutans American Sign Language than chimpanzees *Pan troglodytes* and bonobos *Pan paniscus*. An orangutan named Chantek learned about signs and was able to use them spontaneously, though most of his interest remained on signing about foods Miles While tool use was first seen and studied among captive orangutans, subsequent field work at Suaq Balimbing, Sumatra revealed that wild orangutans are also quite deft at using and making tools, but the behavior is rarely seen among Bornean orangutans Commitante et al. In the wild, orangutans are seen using found objects as tools: They also manufacture tools: Captive orangutans are also capable of manufacturing tools for a variety of uses and situations: In some instances, orangutans score higher on tool-using tests in captivity than do chimpanzees by, for example, using one tool to make another. June 13, Written by Kristina Cawthon Lang. Reviewed by Simon Husson. Cite this page as:

Chapter 9 : Primate Factsheets: Orangutan (*Pongo*) Behavior

The orangutans (also spelled orang-utan, orangutang, or orang-utang) are three extant species of great apes native to Indonesia and Malaysia.