

'n 2001, Monkey World Ape Rescue UK and Pingtung Wildlife Rescue L centre Taiwan, approached the Vietnamese authorities in order to set up an in situ project that would make a difference in stopping illegal trade in Endangered Primates and support wild primate conservation in South

After years of effort from all sides, the Dao Tien Endangered Primate Species Centre, located in Cat Tien National Park (CTNP) in southern Vietnam, was opened in 2008 (Fig. 1). All parties agreed that only threatened species of primates belonging to this region would be brought to the Centre and that the Vietnamese Forestry Protection Department (FPD) would work with Dao Tien and CTNP to confiscate any such primate that was discovered illegally, with the development of Government guidelines facilitating healthy individuals to be rehabilitated and returned to the wild. All the parties involved (the Ministry of Agriculture and Rural Development, the FPD, CTNP, Monkey World and Pingtung) agreed on this strategy. The four primate species consisted of goldencheeked gibbons (Nomascus gabriellae), black-shanked douc (Pygathrix nigripes), silvered langur (*Trachypithecus margarita*) and pygmy loris (Nycitebus pygmaeus). The Endangered Asian Species Trust Charity (EAST: Charity No 1115350, founded in 2007 by Monkey World Ape Rescue UK)

Dao Tien

oversees the long-term support for the centre.

One of the first confiscated gibbons arriving at Dao Tien was a 20-year-old male called Lee Lee (Fig. 2). The remaining wild populations, estimated at less than 6,000 in Vietnam, are threatened by habitat destruction—expanding cashew, coffee and rubber plantations and a non-sustainable level of hunting for meat, traditional medicine and the pet trade. Lee Lee was kept as a tourist attraction, at a petrol station, in a small cage on his own (Fig. 3), unsettled by chickens running below him and the boom of a generator, for over 18 years. When confiscated and brought to Dao Tien in August physical condition, not suffering from malnutrition like so many others, but it soon became clear that Lee Lee's weakness was the absence of any

essential gibbon social skills.

Gibbons generally live in small monogamous family units—male, female and offspring. Young gibbons leave home at around 6-8 years of age to find a mate who they can stay with for life, with life spans as long as 35 years recorded in the wild. Lee Lee, illegally taken from the wild as an infant, was deprived of any social interaction with his family. The best option for Lee Lee was a female gibbon to pair with and educate him in natural gibbon behaviour. Trang Bom, a healthy six-year-old female was selected. It was positive at first with grooming through the mesh; Lee Lee appeared as if he knew what to do. The slide was opened and the two quietly swung around each other, making happy contact calls. Then when they approached, with neither gibbon knowing what to do, it escalated into a nervous scuffle. Sadly after a few weeks of introductions both were losing con-

fidence, something that is fundamental to the successful rehabilitation of any primate, and the two were permanently separated.

On Christmas Day 2008 we rescued Merry, a female gibbon estimated to be nine years of age. After being confiscated on the road heading to the markets of Ho

mate Rehabilitation: fighting chance? 2008, surprisingly he was in good Fig. 3. Lee Lee's cage at the petrol station

> Chi Minh City, being transported in a canvas bag, she was in extreme shock and curled up on the floor of the cage. We quickly constructed a bamboo wall on the side of her cage, to provide more cover, and she immediately climbed to the top of the cage, feeling more secure. We noticed Merry was not using one leg. After veterinary examination, it appeared no bone was broken just nerve paralysis, possibly from the fall when being hunted or during her traumatic journey. As Merry settled into her new environment the use in her leg returned and gradually she showed herself to be a strong female displaying normal gibbon behaviour and an excellent potential candidate for release.

Merry passed all health and DNA checks and so was selected to pair with Lee Lee. Merry's behaviour towards Lee Lee was in contrast to Trang Bom's; she would approach Lee Lee soliciting his attentions. At first Lee Lee would keep moving away, then, when it became too much for him, he would lash out like he had done with Trang Bom. This is where Merry came into her own; instead of retreating, Merry would chase him and 'scold' him for behaving badly and Lee Lee would pull back. Soon afterwards

Merry would approach him again being 'friendly'. This was the procedure for the first few days. It was clear that both animals were well-suited, but Lee Lee needed to be coaxed into the role of a gibbon (Fig. 4). On day three, Lee Lee mated with her; this is vital for the development of a strong pair bond.

By March 2010 the pair were strong, both in health and bonding, and on track for release. They were both radio collared (Fig. 5) (the first gibbons ever to be fitted with such collars) and placed in a 20ha semi-forested enclosure for forest training. The viability of collaring gibbons was assessed over a one-year period, vital if any post-release data was going to be gained to help develop release guidelines. No problems were found, which was excellent, but unfortunately using radio signals in a secondary forest proved problematic; a signal estimated to travel 7km struggled to reach 700m. GPS collars would be required if any serious post-release data was going to be possible, and with the advent of new technology this is now a viable option.

In May 2011 we had confirmation of the pair bond between Merry and Lee Lee, when Merry gave birth to a baby. (Family is paramount in Asia and the Vietnamese primate care staff all smiled, saying, "How good, after 18 years on your own, that you can still be a father.") The infant was named Noel.

Now in July 2011 we are ready with GPS collars for the final test. Over the next few months the family of three

will be collared and transferred to the release site, a beautiful area of secondary forest historically known to hold gibbons but where now there are none. From gibbon surveys 3. and a PhD study on the ecology of the golden-cheeked gibbon, it is clear that the gibbons can be highly adaptable and survive in poor forest with little closed canopy—a trait that creates the potential for a more positive future for this gibbon species. In time, rehabilitated gibbons will, we hope, establish new populations in areas of forest that historically used to hold them, but at present do not.

Primate rehabilitation, however, is not easy and is notoriously expensive, can be time consum-

ing with limited success, and thus is often considered of little benefit to true conservation. However, when law enforcement and confiscation are looked at in detail, it is an unavoidable necessary limb of primate conservation that cannot be dismissed or abandoned if first results are not successful.



- 1. on payment of a fine, the animal is returned to the perpetrator
- 2. rescue centres are forced to accept animals and house them in unsatisfactory conditions
- primates are released into the nearest forest whether suitable or not, with no health checks or post-release monitoring

For the sustainable management of rescue centres, and for them to continue working with law enforcement bodies, successful guidelines for rehabilitation are needed (including those for release), freeing up space for continued law enforcement and confiscation. The guidelines requested by the Vietnamese Government will help regulate the present trend for unmanaged releases and reduce the disease risk for wild populations.

The Dao Tien Endangered Primate Species Centre has successfully released black-shanked douc to the wild and has accumulated data from releases of pygmy loris over a three-year period, revealing that, at present, most pygmy loris released back to the forest do not survive. This highlights the need for more research into successful rehabilitation before this small nocturnal primate becomes extinct. Valuable post-release data from two families of goldencheeked gibbons should be available next year. Lee Lee's family is expected to be one of these, marking the end of a long journey for Lee Lee from the wild, through a very unpleasant life at a petrol station, rehabilitation at Dao Tien under the guidance of his new partner Merry and finally back to the forest.

For more information and updates, progress of our rescued primates and how you can help support our work, please go to www.go-east.org.

Dr Marina Kenyon Co-director Dao Tien Endangered Primate Species Centre, South Vietnam

For strong enforcement of wildlife

legislation and protection of the wild populations. confiscated primates (Fig. 6) need a place to go. Rescue centres have limited capacity and when full are unable to support the law enforce ment authorities with animal placement, sadly resulting in one of the following:

