From The Archives

ELEPHANT CATCHING IN ASSAM

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Elephants are caught in Assam by two methods, *Mela Shikar* and *Kheddahs.*

The former consists of pursuing the wild herds with tame elephants carrying nooses, and this method, together with pitting (now illegal), has been practised from very ancient times.

Three or four *koonkies,* as the tame elephant are called, usually operate together at *mela shikar,* and it is considered desirable that one of the elephants should be a big male of known courage in case any of the wild elephants prove aggressive, Each *koonkie* has 3 attendants, the *phandi,* who sits on the neck and throws the *phand* (or noose), the *lohitiya,* who hangs on behind and prods the *koonkie* near the root of the tail when speed is required, and the *kumla,* who remains in camp and is responsible for feeding the *koonkie.*

The catching gear consists only of the jute *phand,* which is attached to the *koonkie's* girth.

The *koonkie* can often work their way undetected into the middle of a herd when it is feeding in open order, provided the locality has not been much hunted recently, but the wild elephants soon become exceedingly wary, and will then fly both farther and faster from the smell of a tame elephant than they will from man.

In such case there is no alternative but to pursue, and try to cut off and noose those calves, which cannot go the pace and which fall behind. The whole performance, with the screaming of the elephants and the smashing of the jungle, is very noisy and terrifying, as may be imagined, but serious accidents are uncommon, as a matter of fact, and such damage as befalls the men is usually caused by thorns and branches of trees tearing and bruising them.

Female elephants, whose calves have been noosed, will sometimes attempt a rescue, but good *koonkies* will always square up to the attacker and drive her away.

The big males of a herd seem to prefer keeping to themselves some little distance off and, when danger threatens, are among the first to seek safety in flight, provided the *koonkies* do not get in their way: an elephant in *musth* constitutes more of a problem, and the *phandis* draw off, if there is any danger of coming into conflict with a male, that is under this dangerous influence.

Phandis necessarily vary greatly in skill but it commonly happens, even in the case of the most expert, that the noose does not get home properly on the wild elephant's neck, and it is then necessary to call for a *phand* to be thrown from a second *koonkie.*

Quite big elephants can be caught by this method, but in the case of such the first noose scarcely serves more than to brake the headlong pace of the terrified beast, and assistance has to be summoned at once to prevent an escape.

The *phands* may be 2 inches or more in diameter, but even these ropes are not always heavy enough to take the strain, and the writer has known a big *mukhana* (tuskless male) break 7 ropes in succession before he could be finally secured.

Mela shikar leads to a number of the wild elephants being unavoidably strangled, and it is fortunate that this form of death is very instantaneous on account of the structure of the elephant's wind-pipe.

The *koonkie* proceeds to put on the brake as soon as the *phand* is round the wild elephant's neck, and then the tug-of-war begins, the wild animal doing all it knows to escape from the unaccustomed restraint. It is the *phandi's* concern gradually to shorten the rope until the captive is secured close alongside his own animal, and he can only do this by seizing such opportunities as occur between bouts of pulling and struggling. The noose has to be tied by a small piece of rope to prevent it slipping up and throt-

tling the elephant, and it cannot but happen occasionally that the noosed elephant gets so hopelessly wound up round trees and so on that the *phand* tightens and death ensues.

Kheddahs in Assam are worked on a less pretentious scale than those organized in Mysore, or formerly practised by the now defunct Kheddah Department, and no attempt is made to surround herds with a large number of men and then force them into a hastily erected stockade.

Stockades in Assam are built either across main elephant paths or else in the vicinity of salt-licks, which the elephants visit of their own accord from time to time.

The herds are bound in most districts in Assam to travel from one feeding ground to another by certain well-worn paths. Wherever the ground is favourable they can wander, may be several miles, from the main paths, but it generally happens that sooner or later steep hills or boggy ground, etc., compel them to return to their fixed paths, which follow the safest and easiest lines across country with unerring accuracy, representing, as they do, the result of the accumulated wisdom and experience of countless generations of travelling elephants.

The most favourable stockade sites are in ravines, through which the driven elephants must seek to pass, unless they have the courage to break back through the beaters.

It is necessary that a stockade should not be too obvious to the approaching animals, and so it must be built in thick tree forest, where camouflaging can be successfully practised.

Very rocky ground is avoided because of the difficulty in sinking the posts to the requisite depth, and it would obviously be impossible to build sufficiently strongly on marshy soil. Stockades vary in shape according to the locality, but are generally more or less oval or oblong, about a cricket pitch wide and a few yards more in length.

A gate at each end is necessary where elephants can be driven from either direction, and the gates have to be built across the path itself: a skilful band of hunters, who know their work thoroughly, often prefer to build their stockade across a subsidiary path, trusting to their own skilfull management to deflect the driven elephants (from whichever direction they may come), from the main on to the subsidiary path; this arrangement saves labour as it obviates the necessity of constructing more than one gate.

The best site for a gate is clearly where the path passes between two trees, because the trees can then be utilized as door-posts and, more important, because there is no artificial narrowing of the path, the elephant being accustomed to squeeze between the two trees at this spot.

Drop-gates used to be employed, but these are cumbrous to lift up, and heavy swing doors, 10 to 12 feet high, made after the pattern of an ordinary English five-barred gate, are now used.

The doors open inwards and, before a drive commences, the door, through which the herd must enter, is opened and kept in position by a long rope, leading to a machan concealed in some convenient tree outside the stockade. A slash with a knife cuts the rope and releases the gate which, apart from having been hung so as to swing to of its own accord, has its pace accelerated by means of a spring, consisting of a rope tied to the top of a bent over sapling, which tends to straighten itself as soon as the watcher in the machan has released the gate.

The old fashoned stockade consisted of stout posts, 18 or 19 feet long, sunk in the ground to a depth of 5 feet with a spacing of about 3 feet, and horizontal logs were packed in between to a height of 13 or 14 feet, but such massive structures have proved unnecessary and involve very heavy labour as the timber must be carried from some distance away in order not to disturb the forest close by.

Nowadays vertical posts, 17 or 18 feet long, are buried 5 feet in the ground, about 5 feet apart, and 3 rows of horizontal beams are tied on outside, one row near the ground level, one at breast height, and the third near the top: the whole structure is strengthened by struts from the ground to the 3 rows of horizontal beams.

The spaces between the upright posts are filled by vertical poles (3 inches in diameter are sufficient), which merely rest on the ground and are kept in position by being tied to the inside of the 3 rows of beams.

Another method is to bury rather smaller posts every foot, the interstices being filled in with poles.

A well built stockade may look extraordinarily flimsy, but there is plenty of give in it, and it is adequately protected from direct assault by a V shaped ditch, 7 feet wide and 5 feet deep.

It is not customary in Assam to tackle old and big males, which may happen to be caught because it has been found that the *koonkies* (if any can be found with sufficient courage and strength for the job) may be severely damaged in the encounter, and also because mature males often lose heart and practically refuse to live in captivity, so it is not necessary to build stockades strong enough to retain the biggest elephants.

It so happens that the masters of a herd seldom get caught, except when in *musth*, because they selfishly try to break away, when danger arises, and the beaters are only too thankful to let them through, but these *goondas*, as rogues are called, are not really very troublesome so long as they are caught with a herd; they have to be shot, not from fear that they would break out, but because they damage smaller members of the herd, and are, as has been explained, of doubtful commercial value.

Solitary rogues often wander into stockades at night, and occasionally the watcher in the gate-machan makes a mistake in the dark and underestimating the size and age of the elephant closes the door: then the fun begins. Determination on the part of the men may suffice to keep a *mukhana* in, but a tusker seeing red, is an awesome beast, and can generally walk right through a stockade at any spot he likes, despite the ditch, or, and more commonly, he just puts his tusks under the door and heaves it over his back.

V-shaped funnels or wings extend out from the gate posts so that all elephants, which are taking a course parallel to the path, may be directed to the entrance.

The final act of preparation (excluding religious observances) consists of camouflaging the stockade. Living tree-ferns and orchids are fastened onto the doors and door-posts, and branches of trees are stuck in the ground to conceal the funnel.

Care is taken during the work of construction to preserve intact the jungle growing in the middle of the enclosure, and branches and creepers are hung over the sides of the stockade to mask an otherwise too distinctive outline.

The ditch is effectively hidden by fresh branches placed across higgledy-piggledy.

A super-camouflager will sometimes take the trouble to fashion little tracks through the jungle in the middle, the idea being that the elephants, which enter first, will waste time following these tracks, and so enable the men to hustle in the laggards.

One of the outstanding advantages of the present day stockade is that the elephants can see through it. Very few herd animals are game enough to try and rush the ditch and palisade in the face of a man, armed with torch and spear, while at night, when the elephants are more restive, the encircling fires are visible and command respect.

The weak point is the gate, a moveable structure without any part buried in the ground and with no protecting ditch, and the obvious place of attack, because it bars the exit along the well known path. However, the dear old elephant is not very worldly wise, and it is found that the gate can be made to appear to the elephants to be the strongest part of the whole contraption by merely fitting it with sticks and branches, so that the beasts cannot see through it.

Driving is best done late in the afternoon and evening, when the elephants are on the move themselves, and the beaters like to time their drives so that the elephants are entrapped just before dark, when deficiencies in the concealment of the stockade may not be noticed.

Elephants like to rest in thick cover during the heat of the day, and are inclined to be pigheaded and to circle round if driven while the sun is still high; after dark they become much more aggressive and may effectively resist pursuit.

A drive may be a lengthy business extending over several days and nights but in that case the earlier stage, while the herd is still far from the stockade, consists merely in the men keeping a long way behind the elephants, so that they will move quietly in the desired direction without stampeding, any attempts to take divergent paths being frustrated by men sent forward to block the way.

The real excitement begins about 3 o'clock on the last afternoon, when pressure is first put upon the elephants.

The beaters as a rule number from 7 to 12, save in exceptional circumstances. Crowds of men and excessive noise are regarded as the signs of unskilful work.

The beaters are divided into two parties, which follow on either flank of the herd, the men keeping in single file, a formation which permits them to get through the undergrowth without straggling, and to form line if the elephants stand up to them.

The principal difficulties are caused by *goondas* trying to break out of the drive and by mothers of weary calves.

No impediment is offered to the flight of a *goonda* unless some of the smaller fry are following him, when it becomes necessary either to force back the *goonda* or to nip in behind him and head back the others, a very delicate task.

Mothers will charge back time and time again in order to let their calves get on, and they frequently spoil drives by holding back the beaters so much that the leading elephants, with no one behind to hustle them, can discover the approaches to the stockade; they will then leave the path and, if the ground permits, make a big circuit at their leisure round the stockade, all the succeeding elephants following in the footsteps of the leaders, as they know they would never have branched off like this without some very good reason.

Herds will sometimes absolutely refuse to be driven any further, and one is tempted to believe that in these cases the herd must have passed through the unfinished enclosure at night during the time when it was in course of erection, or been made wise in some other way.

Guns are only fired in the last resort and when elephants are deliberately heading in the wrong direction; the sound of a gun is so terrifying that the herd may panic and scatter pell-mell through the forest, completely beyond further control. Not even guns, however, will stop a herd that has made up its mind to break back, and the beaters are only saved from extermination by their uncanny power of distinguishing between bluff and the real thing on the elephants' part, and their amazing ability to make themselves scarce at a moment's notice as the elephants thunder through them.

Persistence on the men's part may eventually cause the elephants' determination to evaporate, if they keep on getting round in front of the herd, and the elephants will then allow themselves to be driven all the way back.

The diverging paths near the stockade are blocked by men in machans, these stops descending and joining in the passing hunt, when their work is done, and there are also stops at the ends of the wings in case the elephants come along very wide of the real path.

Once the herd has entered the funnel, a gun is fired and every one behind the elephants proceeds to make all the noise he can. The sudden irruption of sound stampedes the animals but escape should not be possible if the men running along outside the wings resist any attempt at a break through. It is not always possible to impound all the members of a herd which straggles into the stockade in extended order, because the elephants, which first enter, sooner or later realize the position and try to retreat. It is amazing, however, that they should take as long as they do to appreciate the situation: the elephants bustle in at the door and hurry across to the far side of the stockade, but the sight of the ditch with the palisade beyond seems to bemuse them, and it is only after some moments' contemplation that they slowly turn and begin to wander back.

The door must be shut, whatever elephants there may still be outside, before the animals inside make a rush for the exit. The writer has seen elephants which had been excluded because the gate could no longer be kept open, barge the gate open, before it had been tied, and join their companions within, but as a rule the excluded elephants make a mad rush for one of the wings and burst their way through.

There is a certain amount of danger to the beaters from these escaping elephants, but it is quite certain that no elephant would in such circumstances waste time in hunting a man if it could possibly get away past him.

Methods of greater finesse must be employed to catch elephants in stockades built near salt-licks.

The herds visit the salt-licks during the night-time only and at irregular intervals, so it is necessary for the men always to be on watch from the late afternoon until dawn.

Two men are stationed in the gate-machan, and the rest are distributed in high machans in the forest on the far side of the lick in such a manner that the elephants can pass by their accustomed paths without getting any scent of man.

As soon as the elephants have reached the lick and are busy taking their medicine, the beaters descend from the machans and hasten to their appointed stations by specially cut paths which are kept scrupulously clean and free from leaves.

When sufficient time has elapsed for all to reach their stations, torches are suddenly lit and the elephants driven towards the stockade: it sometimes happens that they simply rush straight into it, but more often they are less obliging, and skill and bravery are required to prevent them from escaping along any of the numerous game trails, which radiate from the lick. It is a matter of the greatest difficulty for anyone not accustomed to night work to appreciate what is happening, but a correct diagnosis of all the different crashes in the jungle must be made by the men, as it may be necessary to let small batches go rather than run the risk of frightening back the main portion of the herd.

The noise alone is sufficient to terrify the ordinary mortal and the close proximity of the big beasts is very alarming, but accidents seldom occur so long as the men use their torches boldly.

The salt-licks are very frequently visited by solitary rogues, and it is found that these are often the advance guard of a herd. There is always the chance of a herd coming early in the morning, if a *goonda* has been at the lick the previous evening, or of the herd coming the next evening after an early morning visit by a *goonda.*

It may be presumed from this that elephants pursue an ordered routine when undisturbed and that a herd will follow regular round of drinking at the accustomed places, feeding at the accustomed places and lying up in the usual retreats once it has started on one of its regular routes.

The *goondas* are, of course, not molested while at a lick, but a whiff of human smell will occasionally set a *goonda* off squealing in anger and charging aimlessly about.

The men's machans have to be built in big trees as a suspicious elephant will prospect the locality carefully, and may be bold enough to try and tear down the machans.

The writer remembers how on one splendid moonlight night a large tusker crept up noiselessly beneath his machan and stood there puzzling as to the source of this poisoning of the night air; at last his trunk reached the ladder and told him that a man had gone up it not so very long before. The ladder was soon made into mincemeat, but the tree stood firm and the huge beast rolled off in a very grumpy frame of mind. The next obstacle, which he encountered, was the outside of the stockade, which provided him with a little healthy exercise, and finally he played spillikins with one of the wings before wandering off in high dudgeon. The amazing part of the story is that the two-gate men slept through the whole performance, and were greatly astonished when dawn arrived and they saw the destruction all aroud them.

At one lick, which we stockaded, there dwelt a very old and evil-tempered *mukhana,* which soon came to learn all about the sites of the various machans, so provokingly out of his reach: one night, abandoning his accustomed path, he entered the stockade unwittingly and, being short-sighted, tumbled, into the ditch on the far side. This throughly frightened him and he essayed to retreat at his best speed, but again his sight failed him and he tumbled into the ditch by the door.

This episode was too much for his nerves and we never saw him afterwards.

Elephants will certainly do quite unaccountable things at times; a *goonda* that walked into a stockade one night, bit the cane, which was holding the gate open, and consequently imprisoned himself inside the stockade, and he had to do a lot of damage before he could punch a hole big enough to allow himself to escape through the palisade.

Elephants very seldom break out of a stockade, and when they do it is generally due to the presence of a big tusker, which unmindful

of the spears and firebrands succeeds in bursting his way through and escaping with all his herd.

It is quite clear that the elephants would have no difficulty in getting out, if only they had the sense to rush pell-mell at the stockade and use their weight against it, but that is not their way. They are exceedingly timid animals, and spend most of their time in the stockade huddled up in the centre, scrimmaging round and round, each trying to secure an inside berth. The scrimmages are painful to watch because one fears for the small beasts, but these remain safely beneath their mothers and seldom come to harm.

As an illustration of how timid elephants are may be quoted the story of a herd, which was nearly reduced to panic by the entry of two very small fowls into the stockade The religious ceremonies, which are performed on the completion of a stockade, include the releasing of two fowls, which from motives of economy are usually quite small chickens. These chickens exist in the neighbourhood of the stockade until some wild cat comes along and carries them off. On one occasion the diminutive pair sauntered into the stockade through some gap, looking for food amongst the debris on the ground, and threw the small elephants of the herd into the wildest confusion till angry charges from the bigger animals expelled them from the enclosure.

Single elephants will continually charge out from the scrum in the middle, but their charges end in precisely the same way as do the rushes which a dog will make at a cat; the brakes are put on before the ditch is reached, and after a few kicks into space with the fore-feet the elephant retires.

Elephants are more restless at night, but a shout from a man and a wave of a torch are generally sufficient to maintain discipline.

Different countries have different methods for getting the wild elephants out, in Chittagong, for example, the *koonkies* enter the stockade backwards, the *plandis* being armed with long spears to keep off any inquisitive wild elephant that comes too close with evil intent. Men descend from the *kookies* and operating beneath them dexterously manage to bind the legs of the wild elephants, which can then be taken out very easily.

More direct and spectacular methods are employed in Assam, the *koonkies* entering head first and dragging out the reluctant wild elephants without any premilinary hobbling.

The *koonkies* are arranged in single file with the biggest animal, preferably a tusker, in front. The wild elephants smell the *koonkies* from afar, and the first intimation of the *koonkies'* approach is conveyed do those watching the stockade by the up-lifted trunks and visible uneasiness of the herd. The elephants generally retreat towards the far side of the stockade and their attention is distracted there by fodder being thrown to them.

The bands tying the gate are loosed and, while men pull on ropes, the leading *koonkie* butts the gate open and stalks in with the remaining *koonkies* crowding after it.

It is advisable that the gate should be opened with reasonable speed. The writer has seen a big female charge at a gate, which stuck after being opened a little way, and she banged it shut with such force in the face of the *koonkie* on the other side that his morale was seriously affected.

It is still more advisable that the gate should shut quickly after the last *koonkie* has entered. On one occasion the leading *koonkie* swung the gate open so violently as to unhinge it and prevent it from being closed. In the subsequent confusion the men lost their heads and the *koonkies* were seized with panic, although there were only a few small females to deal with, and the whole mob, wild and tame, barged out through the open door amidst the groans and tears of the stockade men.

The wild elephants never combine to overwhelm the *koonkies;* one or two of the bigger beasts may look a little aggressive, but the *koonkies* go straight up to them and start hustling the herd round and round with the same confidence as a few disciplined men will show when dealing with an unruly but leaderless mob. No great violence is necessary and there is no excuse for damaging the wild elephants.

It used to be the custom in Assam to delay putting the *koonkies* in until the wild elephants had been weakened by thirst and hunger, but such cruelty is entirely unnecessary and has been discouraged by Government fixing a limit

of time, within which the stockade must be cleared, or else the catch set free.

After five minutes or so the animals are allowed to settle down, and the men untie their nooses and get to work. The noosing is often a tiresome job, especially in the case of small elephants, which will insist upon running under their mothers; this makes it difficult to shorten the rope and tie the noose properly to prevent it getting any tighter and unless this is done there is always the danger of strangling.

It is necessary for the *koonkies* to kneel down when the noose on a very small elephant is being tied, as otherwise the man cannot reach it.

An elephant may require one, two or even three *koonkies* to manage it; in the latter case the third noose is generally tied to a hind leg and is very effective in checking too headlong a progress.

The noosed animals resent being detached from their companions and have to be hauled to the door and there is a danger, when the *koonkies* have not sufficed to noose the whole catch, of the un-noosed elephants following the procession out, so that the biggest *koonkie* is detailed to act as rear-guard, and he turns round and looks very fierce if the rest of the herd show signs of following.

Once outside the door (and the getting outside may be a regular case of pull devil, pull baker), the pace quickens up, and the *koonkies* have to use all their strength to prevent their captives from pulling them off the track into the forest. The passage from the stockade to the camp is usually rather a rough one for all concerned.

The new elephants are tied up for the first night by the hind legs to one tree and by a long rope from the neck to another tree, and as high up one it as possible, to prevent the elephants from catching the rope and bitting through it. It is necessary to have a *koonkie* on each side, when the hind legs are being fastened, in order to obscure the elephant's view and prevent its frantic kicks from being properly aimed.

An elephant tied in this way can throw itself on the ground and exert all its weight in trying to break the ropes on the hind legs, and it is highly desirable that it should thus tire itself out as much as possible, because in the succeeding marches to the training camp the *koonkies* have to carry the men's kit, as well as lead the captives, and if the *koonkies* are few, one *koonkie* may have to take two wild elephants.

A barbaric device to keep big elephants quiet on the march was to cut the back of the neck with a knife so that the noose could be fastened into the wound and discourage struggling by the pain. Government is now taking every precaution to discourage this sort of treatment. It is not difficult to detect a neck that has been deliberately cut, but the *phandis* can obtain much the same result by springkling damp sand under the noose, which quickly eats through the skin in a more natural looking manner. The Black List now awaits the men, who cannot bring their elephants in without a clean neck.

Tying the hind legs takes considerable time, so after the first night it is customary to fasten the elephants short by the neck to a tree in such a way that they can run round and round the tree, from which the bark has been removed in order to facilitate the rope slipping round without fraying.

The training is the next episode in the elephant's career on its road to a life of domesticity and usefulness.

Keeping an elephant tied up tight by the head, and spearing it for every misdemeanour has hitherto been considered the correct way to train an elephant, but the writer has been conducting experiments, first on a small and then on a very extensive scale, for the last five years, and has been able to prove that a more rational method of treatment yields better results in every way.

In the first place the training casualties, which have been known to be as high as 48 per cent, have been reduced to less than 1 per cent., and in the second place it has been found that elephants, which are decently treated, settle down to their work in an incredibly short space of time, and are more easily and effectively trained than those which have been maltreated and have had their spirits broken.

The elephants, of course, seek every opportunity during the first few days of their captivity to attack any human being who goes near them, but their lack of success, coupled with the heartiness with which the relatiatory stick is

laid on, soon convinces them of the futility of their attempts, and their desire for a quite and inoffensive life asserts itself so strongly that they abandon further resistance.

The stick they have to get sometimes, and it is adequate punishment for these kindly beasts, though it cannot possibly hurt their thick skins.

The use of the spear is to be deprecated, not only because the wounds inflicted may set up septicaemia, but also because the fear of the pain distracts the elephant and prevents it concentrating its mind on its task and so delays the completion of its education.

An elephant has to be tied up fore and aft by its legs in the training depot, except when taken out for training; it is unnecessary to tie it up tight by the head (save during the evening performance), and it is dangerous to do so, as it may develop a bad neck wound, leading eventually to its death. Rope-harness is attached to the elephant for the benefit of the man, who has to mount it.

The "evening performance" is a great show.

Eight or ten men approach the elephant after dark, and after its neck has been tied closely to a post, a man seizes its tail and the mahout springs on to its back.

One man in front waves a torch in its face, and the others surround it, keeping well away from reach of the trunk, and proceed to scrub it with wisps of grass, and all to the accompaniment of appropriate songs.

The frightened animal bellows, shakes, throws itself on to the ground, lunges at everyone with its trunk and tries to catch the irritating torch, but all in vain, it is well lambasted with sticks and the torch proves itself to be a beastly hot thing to catch hold of.

This treatment is continued for a week or so until the elephant makes no resistance, and the men can rub its face without being attacked.

The actual training takes place morning and evening.

The elephant is taken out between two *koonkies*, to which it is attached by very short nooses.

The mahout is already on one of the *koonkies* and leaps on to the new elephant when all is ready. The animal may shake a little, in which case the mahout must hold on very tight, while the mahouts on the *koonkies* hit the elephant over the head, and the men on the ground in front and behind beat it with sticks. Shaking is a most dangerous vice and has to be stopped at all costs, and it is lucky that very few elephants take to it.

It must be remembered that an elephant has generally lost a good deal of its pep by this time. It has been through a rough and tumble in the stockade, may have had several day's march with inadequate food, has been tied on the stretch by all four legs (to prevent it getting a real good rest) and has experienced the terrifying performance at night, so, take it all round, the poor beast cannot be in its best shaking form.

The man on the ground in front is a source of much irritation to the new elephant, but it cannot get at him and he can safely prod its trunk with his stick or bamboo, while the mahout hammers it, whenever it tries to rush forward.

The man behind, who sings the whole time in a horribly strident tone, is safe from being kicked because the action of the hind legs is limited by ropes, but he punishes all attempts at kicking, and the elephant has to learn to tolerate him.

When the mahout feels securely fixed, the order to proceed is shouted out, the *koonkies* go forward and the elephant gets a prod behind each ear from a sharpened bamboo.

The order to stop is shouted, the *koonkies* stop, and the mahout leans forward and catches his beast a good clout between the eyes.

The order to go back is followed by the mahout digging the point into the elephant's forehead and pulling, while the two *koonkies* pull the captive back a few steps.

A full-grown female requires two *koonkies* for 4 or 5 days, after that one *koonkie* drops behind and, if the elephant behaves, goes about its business. The remaining *koonkie* will be needed for another 4 days, but after that a man on the ground with a leading rope will suffice until the animal can be taken out by its rider in the company of other old and new elephants.

Progress has meanwhile been made in the depot; the elephant will allow itself to be tied up without attempting to kick, and it will feed nicely from the hand.

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ASIAN ELEPHANT THREATENED

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SIR – Pagel and Mace[1] present a strong argument in favour of the current ban on trade in elephant products. The halving of the African elephant population in the past eight years is justly a cause for concern. But we wish to draw attention to a generally overlooked aspect of elephant conservation – that there are two species of elephants, and that the CITES ban has minimal benefits in the conservation of the Asian species, *Elephas maximus* L.

The Asian elephant is much rarer than its African cousin. Current estimates are imprecise, but put the number of wild Asian elephants at 34,000–56,000 with a further 16,000 in captivity[2]. Even optimistic figures indicate that there are only one tenth as many Asian as African elephants[2,3]. Asian elephant numbers may not have undergone a dramatic decline in recent years, but the species faces much more intractable conservation problems.

Elephant poaching may be a relatively minor problem in Asia today and, because some males and all females lack tusks[5], poaching cannot be the terminal threat it is in Africa. Much more important for the Asian elephant are habitat loss and fragmentation as a result of escalating human population, which in turn leads to increasing conflict between man and elephant. In India, for example, which may contain half of all wild Asian elephants, the human population increased from 236 to 790 million in the period 1901–88[4]. This increase places intense pressure on undeveloped areas. Only one-third of Asian elephant habitat is in protected areas[4].

Erosion of habitat forces elephants into agricultural areas, where they destroy crops and inevitably cause human fatalities: 150–200 a year in India[4]. Most remaining populations are already small. Fragmentation of habitat leads to fragmentation of elephant populations. In Thailand, 29 protected areas hold 1,300–1,700 elephants, but only 13 of these areas hold more than 25 individuals[4]. Many Asian elephant populations in the longer term may not be viable[2,6]. It does not help that

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An elephant should be ready for removal to the purchaser's home from within 14 to 21 days after the commencement of training, according to its size, though they are still far from being trained.

A full grown female should begin bringing in a few stalks of fodder after a fortnight and after 4 or 5 weeks should be fit for loading with almost a full feed.

Elephants are easiest taught to kneel down by being stretched out fore and aft, and then prodded behind the withers with a sharp bamboo, while the word of command is shouted, and men haul on the front leg ropes till the elephant has to sink down to the ground.

Runaway elephants may forget everything else, but never seem to forget how to kneel down.

All the other accomplishments are gradually taught, and the elephant should be safe to shoot from at the end of 5 or 6 months, though still by no means absolutely trustworthy.