

## MARKING OR TAGGING ELEPHANTS FOR INDIVIDUAL IDENTIFICATION

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The privately-owned domesticated elephant population is greatly in need of management programs such as biodata collection, veterinary care, economic analysis, enforcement of work regulations, breeding programs, etc. Any such management programs at scale can only proceed after strict licensing (or, at very least, registration) programs: licensing at scale can proceed only after elephants can be marked and numbered as individuals (Lair, 1986). Developing a safe and simple method for marking individual elephants should be a high priority. (One reason that such a method has never been developed is that the men most able to develop such a method, forest department veterinarians and their Western counterparts, have the least need; their elephants are well guarded and well known as individuals).

Theft of elephants is probably nearly as old as the art of elephant keeping. Branding has a long history as a theft prevention measure. The Moghul Emperor Akbar required that the elephants of his noblemen be branded with a particular mark. Branding with a hot iron was replaced in colonial times by use of a caustic or corrosive paste (the active ingredient often being phosphoric acid) applied with a stamp or painted through a stencil. Both Evans (1910) and Ferrier (1947) give similar descriptions of chemical branding which includes washing (and sometimes shaving) the skin, tying the elephant's tail under its belly, applying the paste and then leaving the elephant in the sun for 20 minutes before washing the paste off. Both the literature and people who have done it or seen it done disagree on the amount of pain inflicted but it must be considerable, for some animals at least.

But, beyond any question of cruelty, there are at least three disadvantages to chemical branding. First, such brands need to be large (probably a four-digit number) and obviously require some skill in application. (Who would apply such a brand, the owner or a government specialist?) Second, chemical brands are not permanent but must be re-done or re-touched periodically as normal skin wear occurs. Third, brands are susceptible to intentional defacement, obliteration or alteration. (A fourth disadvantage, that of possible infection or abscess after over-exposure to the paste, is probably at an acceptable level of risk.) All in all, chemical branding is a useable but awkward and imperfect tool

for making individual elephants. It is suitable enough for a careful and conscientious owner trying to protect his own elephants from theft but much less suitable for making and numbering many thousands of privately-owned animals in regional or national programs.

Veterinarians and other specialists should begin to research new techniques for marking or tagging. The ideal technique would be easy to apply, painless, safe and permanent. Cyrobranding (freeze branding) has been more durable than other techniques on domestic water buffalo but apparently has not been tested on elephants. Tattooing is another conventional option but tattooing (whether on the lip or perhaps even the ear) poses many of the same problems as chemical branding, requiring considerable skill, time and restraint. (The low visibility of a lip tattoo, while no problem for specialists, might hamper law enforcement officials).

But research efforts should not stop with such conventional techniques at a conceptual level every conceivable option should be considered. Perhaps an expandable tail ring could work or even a durable tag glued or pinned to a tusk. (One obvious objection to a tusk disc, that there are many tuskless cows and bulls, is not as strong as one would think since even tuskless elephants often have enough tusk to bear a small disc, such discs might need to be replaced often, which would be a disadvantage.)

Perhaps the most exciting approach would be a method to pierce the ear and affix a unique numbered tag. This tag should be difficult to remove and impossible to reuse, much like a customs seal. (Owners would have little motive to remove tags, since their animals would then be liable to confiscation, but they might try to swap tags.) While there are obvious problems associated with an ear tag (e.g., making allowance for growth, preventing abscess or infection, making the tag snag-proof and trunk-proof, etc.) it would seem to offer the best hope for a quick, clear and failsafe result. Ear tags could be very visible and thus easy to examine. So long as a tag which posed no health hazards could be developed, this would seem the best way of marking elephants.

Developing an ear tag which is non-irritating and which allows for growth will require much thought and

possibly even the invention of a simple mechanical device to pierce the ear. The ideal tag would require minimal specialist training, minimal physical restraint and minimal amount of time to apply. (Such an ear tag might also be used on elephants immobilized for other reasons.)

Development of a safe ear tag (or any other marking technique as yet not thought of) will take much time and ingenuity but is surely within the competence of an age capable of inventing an artificial heart. Marking for individual identification is the *sine qua non* for any effective registration or licensing program. Marking, though it will always pose a degree of pain and medical risk, is the best protection an elephant has against abuse. Marshall (1959) describes one incidence of chemical branding and writes. "The pain must have been considerable but, since a good brand would be their greatest safeguard against theft and ill-treatment in years to come, they were made to last out a full twenty

minutes."

It will be a sad day when every last domesticated Asian elephant is registered and tagged but, given their rate of decline, tagging is both inevitable and desirable.

#### References

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## INSURING AGAINST ELEPHANT DEPREDATIONS IN SRI LANKA

In recent years, the conflicts between elephants and human beings have increased substantially in Sri Lanka. Newspapers constantly refer to elephants being shot or killed by irate farmers who often bear the burnt of elephant depredations. The Department of Wildlife Conservation in association with the Insurance Corporation of Sri Lanka has come out with a novel idea of providing insurance cover to poor villagers living in remote areas where elephant depredations are chronic and serve.

In this scheme, the Department of Wildlife Conservation will meet the insurance premia cost for the families concerned. The compensation of Rs. 50,000 (about US\$ 1,250) will be paid to the families if wild elephants either kill or permanently disable their

breadwinner. Other family members will receive Rs. 30,000 (or US\$ 750) and children below 18 years, Rs. 20,000 (or US\$ 500). Property damage will be covered to the extent of Rs. 10,000 (or US\$ 250).

Initially, the scheme will cover people at risk in 8 provinces outside the Western Province. About 700 families will be covered by this elephant risk insurance policy.

Such an enlightened policy will no doubt bring some relief to the poor villagers. It will also help create a climate of public opinion, especially in the remote villages, that is conducive to the overall conservation of elephants and other wildlife in Sri Lanka.

(Source: *The Daily News* 27 August, 1992. Sri Lanka.)