# Guidelines for marking of Animals and Birds

**1. Ringing of Birds:**

Birds should be ringed in left leg. Chicks should be ringed only after establishing parental care bond between mother and chick.

**2. Ear tagging:**

Animals should be tagged in left ear. In young animals with thin ears the tag should be affixed to the thickest cartilage portion of the ears, such as the lower half, near the base. In large and adult ungulates it may be necessary to attach the tag to a thinner section of the ear. For ungulates of any age, care should be taken not to puncture any large blood vessels. In general, external tags are not recommended for amphibians and reptiles, with the exception of turtles. In particular, tags are also to be avoided for long slender animals such as snakes and many lizards.

**3. Implantation of Radio Transponders (Microchips):**

In mammals, radio transponders should be implanted at the base of the left ear. Implant site must be cleaned with alcohol before radio chipping but do not shave skin. The implanter needle is placed at an approximately $45^0$ angle to the skin and then positioned almost parallel to the skin surface and transponder is injected under the skin. The needle should be carefully withdrawn and fingers pressure applied to the implantation site for approximately 30 seconds. The implantation site then should be scanned by the reader to verify both successful implantation and transponder's unique code. Transponders should also be checked as well before implanting into animals. Occasionally the needle will leave a wound; if it does, it is recommend to seal the wound with an adhesive skin bond.

In the case of thick skin species such as slow loris implantations of the radio transponders should be done on the left hip. Marking of the animals should not be done while young ones passing through weaning.

Radio transponders or microchips have been used to mark amphibians and reptiles permanently. After disinfecting the site where the device will be implanted (e.g. lower abdomen for amphibians and snakes), using standard surgical protocols, the devices are implanted subcutaneously or intraperitoneally. If possible, tissue glue (cyanomethacrylate) is then

applied to close the incision. The use of tissue glue helps to ensure that the transponder does not get ejected before the wound heals.

Marine turtles may be marked by using microchips injected into the flippers or shoulder area; however, some microchips migrate into deeper tissues and become unreadable. Complications with radio transponders which have been noted include: migration of transponders if applied subcutaneously or internally, which may make them more difficult to read; breakage of the microchips, and loss of signals.

Information on location of radio transponders (microchips) in the animals should be filled up in the Individual animal history sheet.

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