The knowledge of the fauna coming from the capture, trade and handled illegally in Brazil is an important tool for a conservation of the species. It is necessary the improvement of environmental educational actions, directed to the population, and control actions of wild animals traffic. These observation Results: demonstrated a large variety and quantity of birds being trafficked (FREITAS et al., 2015). The Forensic Institutes are composed of multidisciplinary professionals with the Objective: of reaching the widest possible range of sciences to assist the Law. In the new modality of animal abuse crime, the State has the responsibility to retrieving the traces related to the animals, turning over the work to the forensic expert with training in Veterinary Medicine. Therefore, it is of extreme importance the monitoring of experts in traffic cases of wild birds. The reduction of traffic cold be achieved performing a social work, raising awareness of a population that inhabits areas considered natural habitat of birds. (YOSHIDA, 2013). The conservation of these birds is also responsibility of the professional of this area, who acts with biotechnologies applied to animal reproduction, such as cloning, and reproducing animals that are presenting the risk of extinction. While there are still bioethical issues involved, advances in stem cell research provide a future for a pluripotent stem bank for an artificial production of gametes of endangered species (LOPES et al., 2014).

Conclusion: Although many birds species are annually capture in Brazil for internal and external trafficking of wild animals, the veterinarian has a fundamental position to identify the species and treat the animal that is often rescued extremely debilitated. The growing commercialization in Brazil according to the review carried out is due to the low income of individuals living in the region where birds are easier captured. Possible alternatives to control the traffic of wild animals could be people education and social environmental awareness carried out by the veterinarians in places of greatest occurrence of this practice and the usage of the advances of animal breeding biotechnologies to conserve endangered species.

References


Chelonia mydas is included in the Red List of species threatened by International Union for Conservation of Nature (IUCN). The Ubatuba Tamar Project carries out an important environmental protection action, through environmental education and treatment of sick or non-returnable animals. External injuries in marine animals may be due to normal predation in nature, but may also result from human action. When sea turtles die in good nutritional state, the suspicion is of severe injury, resulting from contact with boats, or by fishing nets and lines, with consequent drowning (SALES et al., 2003).

**Objective:** The aim of this study was to analyze the external lesions commonly found in animals taken at necropsy in the Ubatuba Tamar Project (Latitude: -23.45229; Longitude: -45.07126), São Paulo-Brazil, during the period from November 2015 to June 2016.

**Material and Methods:** Data were tabulated for sex, washer number, weight, length, width, type of injury, and site of its occurrence in the body of the animal, according to Bolten (1999). It was performed inspection of the animal, analysis of the general condition, weighing and measuring cranio-caudal and latero-lateral of the carapace. Photographs of the animals were taken with a digital camera. The project was approved by the Ethics Committee of Unip (nº 393/15) and Sisbio (nº 50659-1).

**Results:** Six animals were analyzed, as shown in Tables 1 and 2, and illustrated in Figures 1 and 2. The animals were found alive and floating, dying during treatment, except Chelonia 2, which was already dead.

**Table 1** - List sex, turtle number, weight in kg, length and width in centimeters, as well as body condition of the animal at the time of analysis.

<table>
<thead>
<tr>
<th>Chelonia and sex</th>
<th>Turtle number</th>
<th>Weight (kg)</th>
<th>Curvilinear carapace length (cm)</th>
<th>Maximum curvilinear width (cm)</th>
<th>Body Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>1♀</td>
<td>99848</td>
<td>2,8</td>
<td>34</td>
<td>31,0</td>
<td>cachexia</td>
</tr>
<tr>
<td>2♀</td>
<td>n0 number</td>
<td>5,8</td>
<td>35,6</td>
<td>33,3</td>
<td>good</td>
</tr>
<tr>
<td>3 n/s</td>
<td>02A07</td>
<td>13,6</td>
<td>55</td>
<td>53,5</td>
<td>cachexia</td>
</tr>
<tr>
<td>4 n/s</td>
<td>02419</td>
<td>7,4</td>
<td>41</td>
<td>38,0</td>
<td>good</td>
</tr>
<tr>
<td>5 n/s</td>
<td>00239</td>
<td>5,8</td>
<td>36</td>
<td>33,5</td>
<td>good</td>
</tr>
<tr>
<td>6 n/s</td>
<td>42593</td>
<td>4,5</td>
<td>34,5</td>
<td>31,2</td>
<td>good</td>
</tr>
</tbody>
</table>

♀: female. n/s: not known

Source: Isabela Teixeira Arduini (2016).

**Table 2** - List the types of external injuries, location and possible causes of injury.

<table>
<thead>
<tr>
<th>Chelonia</th>
<th>Type of injury</th>
<th>Injury site</th>
<th>Possible cause of injury</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>incised wound</td>
<td>distal right hull region</td>
<td>fishing line or net</td>
</tr>
<tr>
<td>2</td>
<td>incised wound</td>
<td>distal left hull region</td>
<td>fishing line or net</td>
</tr>
<tr>
<td>3</td>
<td>chop wound</td>
<td>medial proximal hull region</td>
<td>boat propeller</td>
</tr>
<tr>
<td>4</td>
<td>incised wound</td>
<td>right upper member</td>
<td>predation</td>
</tr>
<tr>
<td>5</td>
<td>incised wound</td>
<td>superior members</td>
<td>fishing line or net</td>
</tr>
<tr>
<td>5</td>
<td>chop wound</td>
<td>distal shell region to the posterior left member</td>
<td>boat propeller</td>
</tr>
<tr>
<td>6</td>
<td>chop wound</td>
<td>injury of the first and second vertebral shield; head and hind limb injury</td>
<td>boat propeller; predation</td>
</tr>
</tbody>
</table>

Source: Isabela Teixeira Arduini (2016).

**Figure 1** - Chelonia 1 (A) Dorsal view; at the tip of arrows 1 and 2 a diminution of the width of the limb can be seen, 3, there is injury by cutting material and 4, identification plate of the Tamar Project. (B) Ventral view; in arrow 5 is noticed the bone exposure because of the high degree of cachexia.

Source: Isabela Teixeira Arduini (2016).
Discussion and conclusion: External traumatic injuries were common in *Chelonia mydas* who were sent to Tamar Project in Ubatuba; it is estimated that man-made objects present in the marine environment are mainly responsible for the external injuries, that can lead to starvation and death; most of them were found drowning. In nature, large predatory fish, such as sharks, and large fish may predate juvenile turtles. The death of juvenile may represent an important environmental impact, since it compromises the long-term reproduction; *Chelonia* take from 20-30 years to reach the reproductive age. A higher number of injured animals were observed in the months of December and January (data not shown), which can be justified by the fact that in these months there are more tourists in the region, with a higher frequency of fishing and vessels around the animals feeding areas, which favors the occurrence of accidents. The increase of research in this area of knowledge is of great importance.

References


**GUNSHOT IN A YELLOW-HEADED CARACARA (MIVALGO CHIMACHIMA): CASE REPORT**


1 Postgraduate student, Veterinary Pathology Department, Faculdade de Ciências Agrárias e Veterinária, Universidade Estadual Paulista (Unesp). E-mail: liviaperles@hotmail.com.

2 Postgraduate student, Department of Clinics and Surgery, Faculdade de Ciências Agrárias e Veterinária, Unesp.

3 Resident of Wild Life Medicine, Veterinary Pathology Department, Faculdade de Ciências Agrárias e Veterinária, Unesp.

4 Professor in Veterinary Pathology Department, Faculdade de Ciências Agrárias e Veterinária, Unesp, Campus de Jaboticabal/SP.

5 Professor in Department of Clinics and Surgery, Faculdade de Ciências Agrárias e Veterinária, Unesp, Campus de Jaboticabal/SP.

Introduction: Anthropogenic injuries have been frequently described in raptorial, including habitat destruction, pollution, car collisions, structure impacts, and poaching by trap or gunshot. (PUNCH, 2001). In Brazil, hunting or trapping of any free-living animal, including birds of prey species is forbidden by the law number 5.197, from January 3rd, 1967 (INSTITUTO CHICO MENDES DE CONSERVAÇÃO DA BIODIVERSIDADE, 2008) and by the art. 29 of the Environmental Crimes, Law 9.605/98 (BRASIL, 1998). In spite of this law, it is frequent in the wild animal clinic to receive birds with fractures and internal organ damage caused by firearm projectiles. There are several studies in other countries which demonstrate that hunting is an important factor causing mortality of these animals, especially raptors (DEEM; TERRELL; FORRESTER, 1998; PUNCH,