Chapter 12

A survey of the large ground dwelling mammals of the Upper-Palumeu river region

Krisna Gajapersad

SUMMARY

During the survey of large and medium-sized mammals of the Kasikasima and Upper Palumeu regions we recorded 18 species. Camera traps were the most important tools for the survey, but direct observations were made and tracks, scat and scratch marks were also recorded. Important species such as Jaguar, Tapir and Giant river otter were recorded. All these species fulfil important roles in the ecosystem such as controlling populations and seed dispersers. The occurrence of a high diversity of large and medium-sized mammals in the surveyed area indicates that the ecosystem is healthy and relatively pristine. Southeastern Suriname is very important for large mammal species, because the area encompasses vast tracts of pristine forest and rivers. In fact, there are few places left on earth which are as pristine as Southeastern Suriname. Hunting and habitat destruction were identified as the greatest potential threats for this area.

INTRODUCTION

Large and medium-sized mammals are the most important targets for commercial and subsistence hunting for meat, skins and other parts of the body. Furthermore, large and medium-sized mammals play important roles in the ecosystem as agents of seed dispersal, animal population regulation, and habitat maintenance and modification. These important functions of large and medium-sized mammals in the ecosystem make them important indicators of the functioning of ecosystems and human pressure (Lahm and Tezi 2003). Historically humans have used animals for food and a variety of other uses (Leader-Williams et al. 1990, Milner-Gulland et al. 2001). Examples all over the world show the effects of overhunting from humans causing population decreases and extinction (Diamond 1989). Overexploitation was almost certainly responsible for historical extinctions of some large mammals and birds (Turvey and Risley 2006). Large mammals have slow reproductive rates, long development and growth times and large requirements of food and habitat, which make them more sensitive to hunting and

habitat destruction (Purvis et al. 2000, Cardillo et al. 2005). Today, about 2 million people depend on wild meat for food or trade (Fa et al. 2002, Milner-Gulland et al. 2003), yet the majority of hunting is unsustainable (Robinson and Bennett 2004, Silvius et al. 2005).

Mammals as a group provide the main protein source for native Amazonian communities. Indigenous peoples have lived in Amazonia for tens of thousands of years (Redford 1992) and many, including the indigenous groups in Suriname, still remain within the forest and hunt mammals actively. In areas where they have been hunted, abundance of large mammals has decreased (Peres 1990; Cullen et al. 2000; Hill et al. 2003). Unmanaged hunting is commonplace in the Amazon and is depleting game populations, often to levels so low that local extinctions are frequent and the critical ecological roles performed by mammals are lost (Redford 1992; Bodmer et al. 1994). Overhunting then becomes a double-edged threat: to the biodiversity of the tropics and to the people that depend on those harvests for food and income. Little information is available on the occurrence, spatial variability in species richness, and sensitivity to hunting and other disturbances of medium and large mammals in Suriname, especially in the remote southern part of the country.

METHODS AND STUDY SITES

We surveyed medium- and large-bodied mammals by means of three main methods: camera trapping, searching for scat and animal tracks, and making visual and aural observations.

Camera traps were set approximately 500 meters apart along trails which were cut during the camera trap set up, on game trails and along an existing tourist trail. The Reconyx RM45 Rapidfire, Reconyx PC800 Hyperfire, Reconyx HC500 Hyperfire and the Snapshot Sniper are the four different camera models which were used for the survey. The camera traps operated day and night, photographing all ground-dwelling mammals and birds that walked in front of them. Camera traps were attached to trees approximately 30 cm above the forest floor. At the Upper Palumeu site