

Suiform Soundings

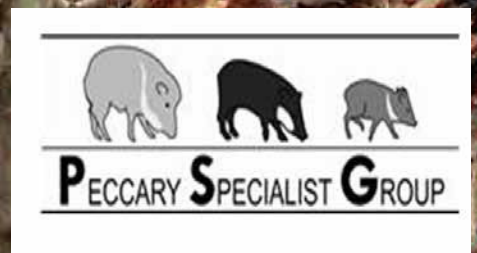
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White-lipped peccaries with skin problems in the Maya Forest

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In recent years wild individuals of white-lipped peccary (*Tayassu pecari*) inhabiting the Maya forest, a tri-national forest shared by Mexico, Guatemala, and Belize, have been shown on camera traps with skin lesions that suggests Scabies infection is present in the population (Moreira-Ramírez *et al.*, 2007). As part of a monitoring program on ponds in the Calakmul Biosphere Reserve in Mexico and the Maya Biosphere Reserve in Guatemala carried out by the authors, several camera traps have been placed in strategic sites adjacent to the ponds during the dry season of 2008 to 2014. During all these years many photos of white-lipped peccaries wallowing or visiting the ponds during the dry season were obtained, however, in some occasions individuals with skin abnormalities such as hairless spots have showed up.

We have recorded white-lipped peccaries with hairless patches on the Mexican and the Guatemalan side of the Maya forest (Table 1).

Table 1. Dates, site and characteristics of the observations of white-lipped peccary with skin problems in the Maya forest.

Date	Site	Observations
May 5 th , 2007	Mirador-Río Azul National Park, Guatemala	A white-lipped peccary in good body condition with pretty damaged skin. This individual was the first white-lipped peccary photographed with skin problems (Fig. 1a).
June 18 th , 2011	Nuevo Becal ejido, Calakmul region, Mexico	A white-lipped peccary was captured for radiotelemetry purposes. It had damaged skin and also hairless spots (Fig 1b).
June 3 rd 2013	Holmul area, Maya Biosphere Reserve, Guatemala	A white-lipped peccary in good body condition was seen with hairless patches on the skin. This individual has been seen in a group with white-lipped peccaries that seem to have normal skin (Fig. 1c).
May 1 st , 2014	Calakmul pond in the Calakmul Biosphere Reserve, Mexico	A white-lipped peccary with hairless patches of skin is photographed walking within a group of apparently healthy animals (Fig. 1d).





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Figure 1a. White-lipped peccary in Mirador-Río Azul National Park within the Maya Biosphere Reserve on May 5th 2007. Photo: José Moreira-Ramírez, Wildlife Conservation Society - Guatemala Program.

Figure 1b. White-lipped peccary skin problem in Nuevo Becal, Calakmul, Campeche on June 18th 2011. Photo: Marcos Briceño-Mendez, El Colegio de la Frontera Sur.



Figure 1c. White-lipped peccary showing skin hairless area in the Maya Biosphere Reserve on June 3rd 2013. Photo: Rony García-Anleu, Wildlife Conservation Society - Guatemala Program.

Figure 1d. White-lipped peccary in Calakmul Biosphere Reserve on May 1st 2014 with hairless skin areas. Photo: Elisa Sandoval-Serés, Universidad de Guadalajara.

Scabies infection on pigs is caused by a species of microscopic mite (*Sarcoptes scabiei* var. *suis*) and is a disease that greatly affects the swine production in the entire world because it increases mortality, compromises the immune system, reduces fertility and can favor other skin problems (Smets & Vercruyse, 2000; Laha, 2014). Scabies infection causes loss of hair first and then while advancing is causing a swollen skin and can cause death in extreme cases. *S. scabiei* have been found in humans, domestic animals and wildlife (Menzano *et al.*, 2007). In wild ungulates, scabies' infection (*S. scabiei* var. *caprina*) has been found on the Alpine chamois (*Rupicapra rupicapra*) and the Alpine ibex (*Capra ibex*), species that share the habitat with domestic goats (Rossi *et al.*, 1995).

The mites penetrate the skin producing a skin lesion that is accompanied by associated stress and weight loss. The skin lesion could be associated with bacterial infections. The lesions are characterized by red spots, dead epidermis accumulated on the skin surface, and loss of hair (Laha, 2014). It is known that scabies could easily be transmitted among members of the same species once one is infected. In the case of the white-lipped peccary a highly social species that generally live in large groups from 10 to 300 generally (Sowls, 1997), the disease, theoretically, should be transmitted faster than in solitary animals. However, photographic evidence shows that only some





individuals of each group are infected with no signs that the parasite has been transmitted to the whole group (authors pers. obs).

The pattern we have found in the population of white-lipped peccaries of the Maya forest deserves scientific attention as we still do not know if this is indeed a Scabies infection, we do not know the species that is causing this problem, we do not know this disease has entered the population, and why other animals of the same groups have not been infected yet despite the problem has been seen there since more than 7 years ago. Understanding these facts will help to elaborate plans for protecting this species that is very rare outside the Maya forest and that is highly susceptible to disease transmission as has been demonstrated in other areas of its distribution range (Fragoso, 1997).

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Figure 2. Photo of the same White-lipped peccary of figure 1d in Calakmul Biosphere Reserve with hairless skin areas. Photo: Elisa Sandoval-Serés, Universidad de Guadalajara.

