THE VEGETATION USED BY SKUAS (Catharacta spp.) IN THEIR NESTS (ADMIRALTY BAY, KING GEORGE ISLAND, ANTARCTIC)

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Introduction

The breeding sites are so important to reproductive success of species than the food availability (Costa & Alves, 2007). In Antarctic the free ice areas are indispensable to the reproduction of seabird species as skuas, penguins, petrels, kelp gulls, and others. In this study we analyzed photographs and field notes to evaluate the vegetation cover of skuas' nests in Admiralty Bay (**Figure 1**).
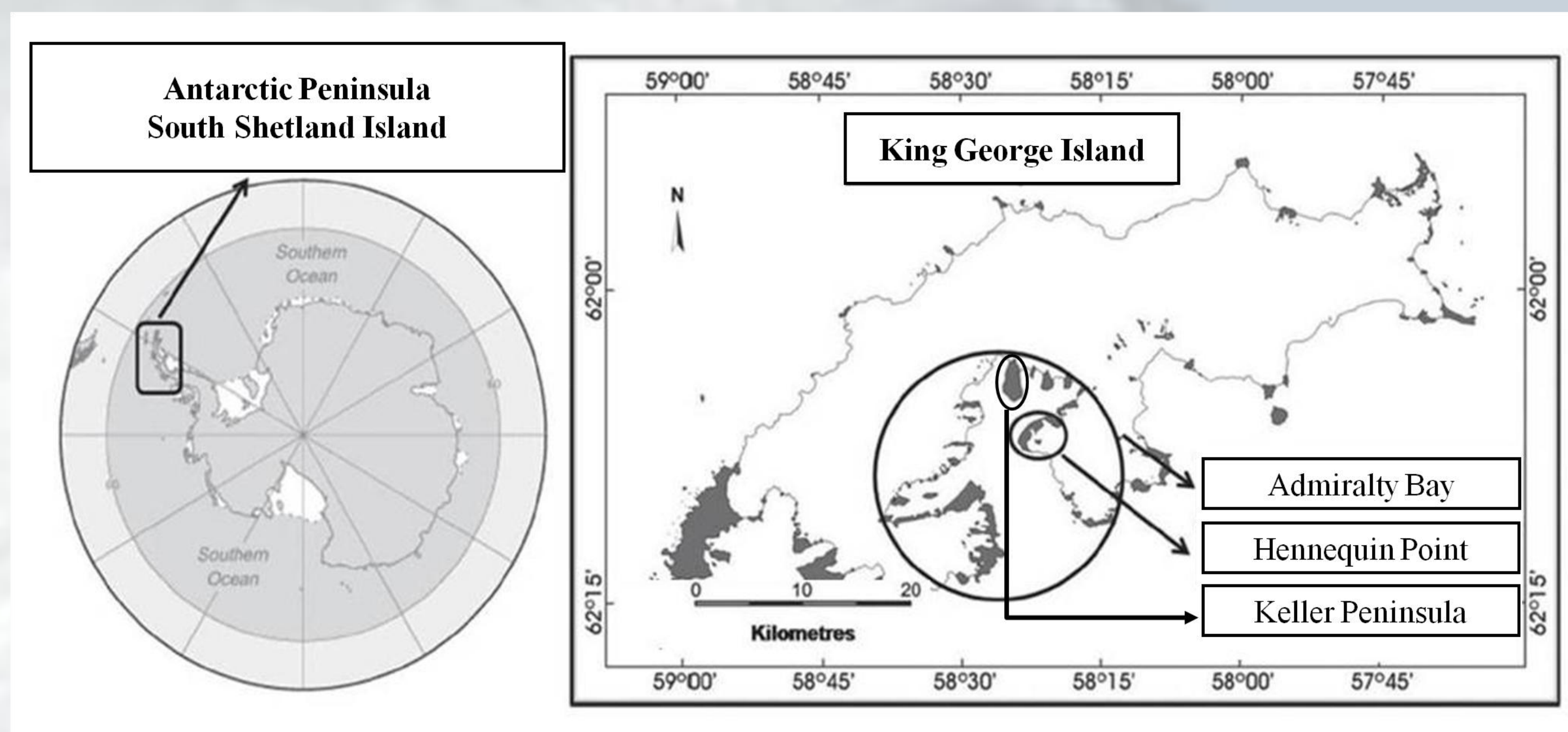

Figure 1. Location of Hennequin Point and Keller Peninsula, King George Island, South Shetlands, Antarctic.

Materials and Methods

Field work took place in 2004/2005, 2007/2008 and 2008/2009 breeding stations in two breeding sites of Admiralty Bay (Hennequin Point and Keller Peninsula. The nests were classified into three categories in accordance with vegetation cover: 1) little vegetation cover (0-25%), 2) medium (25-75%), and 3) abundant (above 75%). Some examples in **Figure 2**.
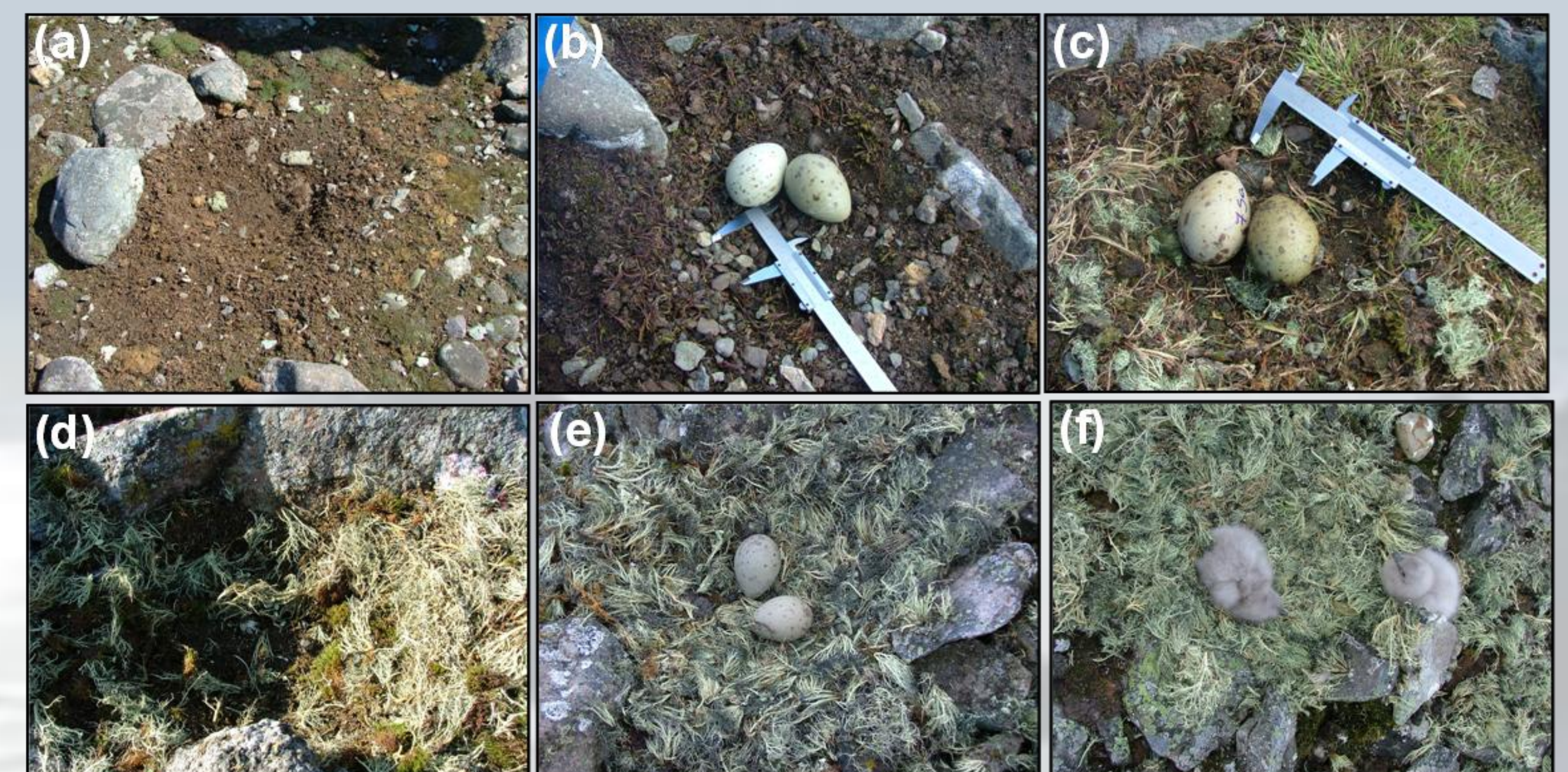

Figure 2. Some examples of the vegetation cover in Skuas (*Catharacta* spp.) nests: (a)-(b) less than 25%; (c)-(d) between 25 and 75%; and (e)-(f) above 75%. (Pictures: Costa, E.S.).

Results and Discussion

The majority of the analyzed nests were categorized in classes 2 and 3 (38% and 32%, respectively). Only 30% were categorize in litke vegetation cover. The initial occupation of the territories by Skuas was little variation between the reproductive periods and when it was recorded occurred by the local alterations in the thawing that are dependent of the alterations in temperature of the air, in the precipitation and in the wind during each period.

Figura 3. (a) Example of the breeding site and (b) Skua's nest (*Catharacta* sp.) with abundant vegetation cover in Admiralty Bay. (Pictures: Costa, E.S.).

The first areas occupied by Skuas were those that was free of the ice and snow more quickly and that presents abundant vegetal covering (Quintana & Travaini, 2000, Quintana *et al*. 2001). The results so far indicate that these birds select the areas to establish territories and build nests according to the presence of vegetation, in accordance with recorded by Quintana & Travaini (2000). These authors recorded 75% of the Skuas' nests with abundant vegetation cover in analyzed breeding sites. It also indicates that the best breeding areas for Skuas are those that have more than 70% vegetation cover.

Conclusions

More detailed studies on behavior and reproductive biology of Skuas are indispensable to understand the relation between the vegetation cover of the nests and the reproductive success of the population. We also need study the other factors (age of individuals, temperature of the soil, deglaciation, etc.) that can influence the occupation of breeding territories by Skuas.

References:

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