

INTRODUCTION

The deer is a ruminant mammal, ungulate of the family Cervidae, gender *Cervus* and species *Cervus elaphus*. The subspecies *Cervus elaphus hispanicus* is found in the Iberian Peninsula. It is a hunting species that should be understood as a renewable natural resource that allows both enriching the natural environment by providing biodiversity, as well as obtaining an economic benefit as a hunting trophy. Deer management is based on its census and hunting.

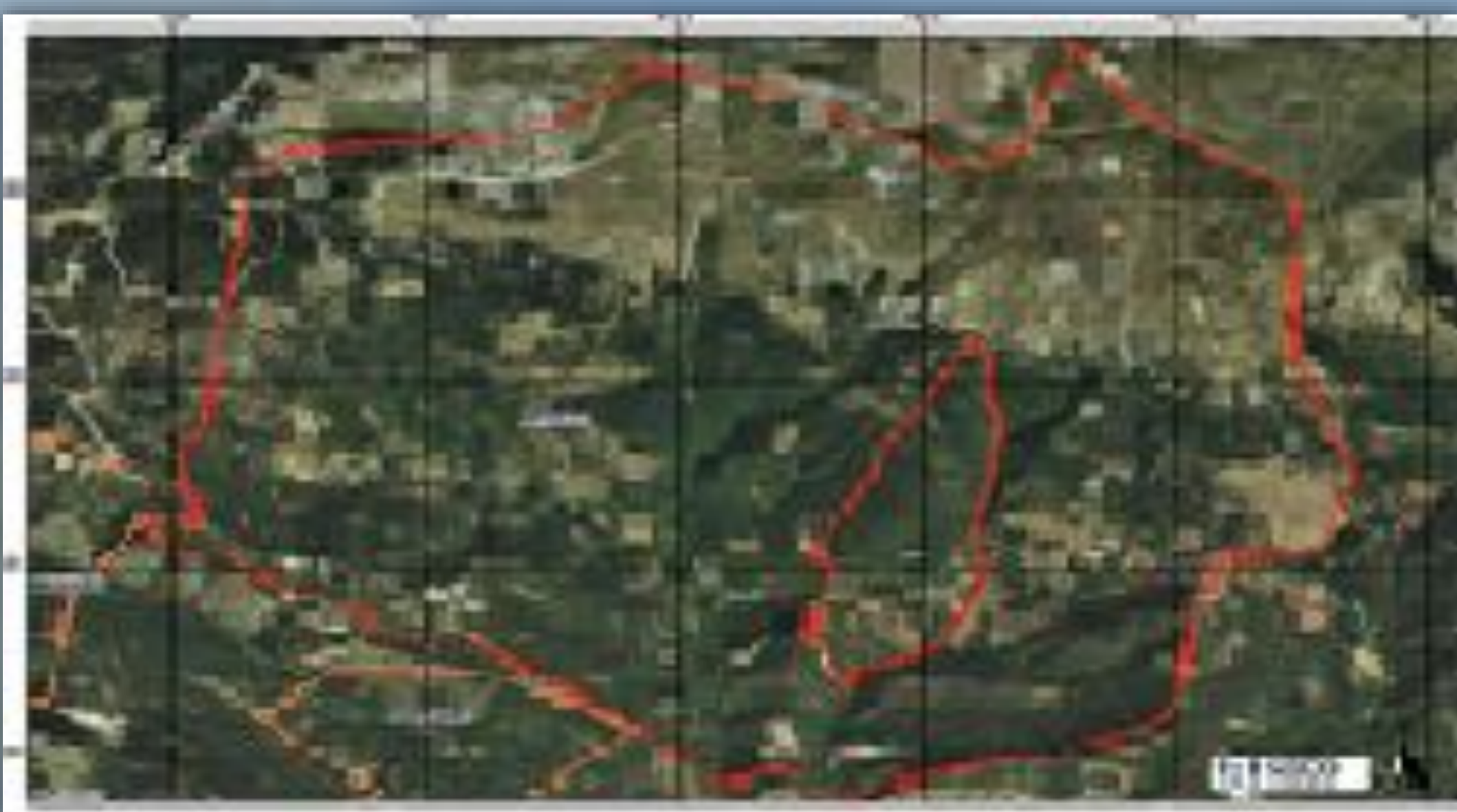


Figure 1. APC Map (B-10327) (Generalitat de Catalunya 2021).

OBJECTIVES

- Study the evolution of this specie from 2010 to 2019 in a Private Hunting Area in Berguedà (B-10327).
- Know in detail how deer management is performed.

RESULTS

Table 1. Animal extraction from 2010 to 2019 (adapted from Generalitat de Catalunya 2021).

Season	Adult male	Selective male	Adult female	Total
2010-2011	5		15	20
2011-2012	4	2	25	31
2012-2013	4	2	29	35
2013-2014	4	3	34	41
2014-2015	7		28	35
2015-2016	7		22	29
2016-2017	5	5	30	40
2017-2018	6	4	30	40
2018-2019	10	5	40	55

MATERIAL AND METHODS

Spring census

Deer abundance estimation was carried out using kilometer abundance indices (IKA). Two linear transects of direct observation of deer. Observers recorded the number of deer seen during the two transects, differentiating between sexes and ages.

Rutting census

Estimation of deer abundance was conducted by listening for buck vocalizations during the rutting period from four fixed points. Census takers noted each distinct adult buck heard within the distance buffer.

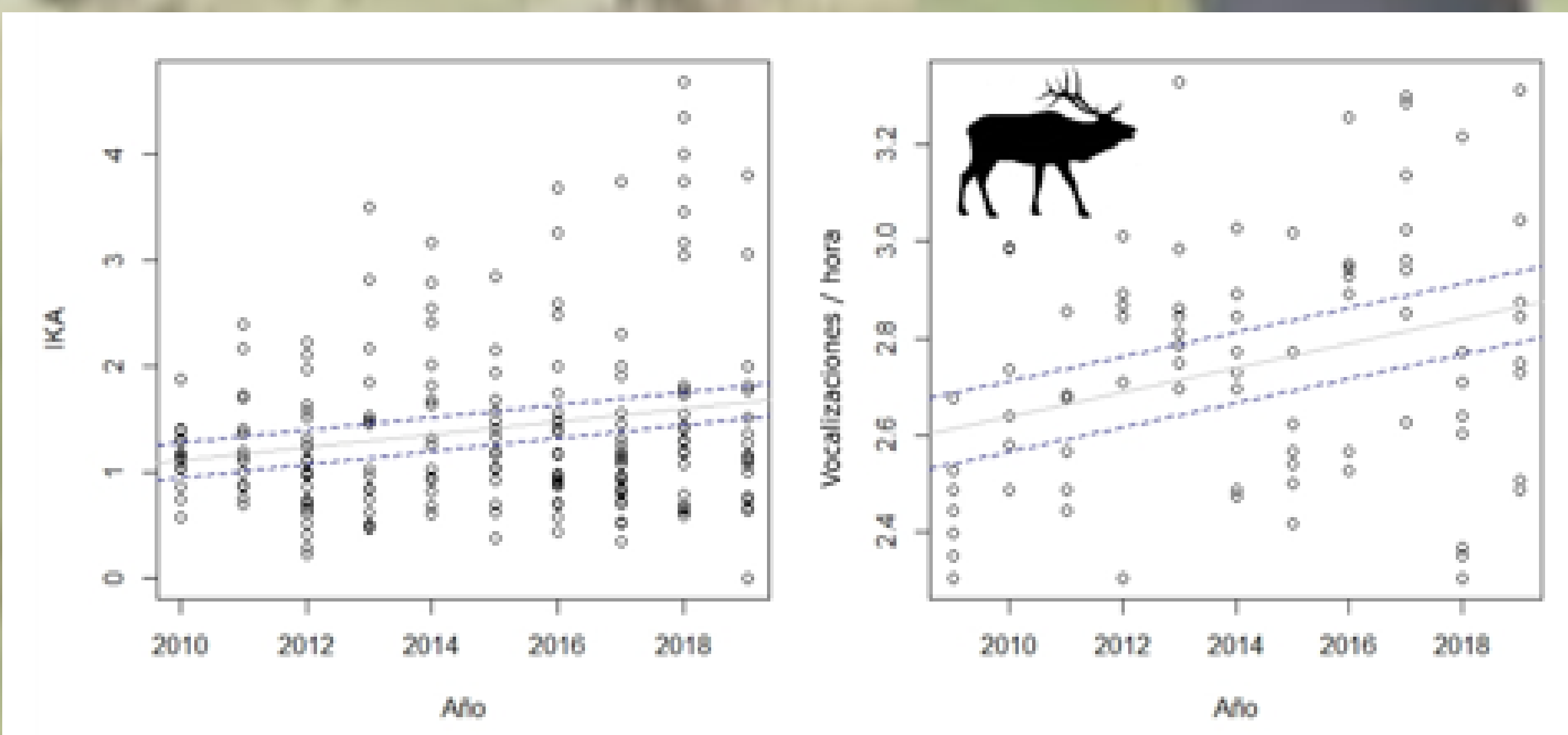


Figure 2. Temporal evolution of red deer (*Cervus elaphus*) abundance in the APC (B-10327) from 2010 to 2019.

DISCUSION

The deer population in the Berguedà APC has increased significantly in recent years.

The census by direct observation only covers a small part of the APC and shows problems of detectability and visibility. Regarding hunting management, deer removal has increased in recent years. In order to maintain a sex ratio close to 1:1 and balance the population with respect to the carrying capacity, more females than males are taken. The number of deer hunted is lower than their births, so the population continues to grow.

CONCLUSIONS

1. Deer has adapted successfully in this Private Hunting Area.
2. The spring census should be improved by increasing the number of routes and need to clearing the abundant vegetation to increase visibility. Rutting census are sufficiently significant.
3. The adult female and the young female are difficult to differentiate.
4. The population will grow until the maximum carrying capacity is reached.