

## Observations on the Vicuna *Vicugna vicugna* and the Guanaco *Lama guanicoë* in the region of the Cuenca de la Laguna Verde, Catamarca Andes, Argentina

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The region of the Cuenca de la Laguna Verde, Catamarca Andes (Fig. 2), has been poorly explored and lacks permanent human settlements (only shepherds seasonally visit the easternmost part of the area). For its remoteness and intact state, the Cuenca de la Laguna Verde has been proposed for protection by local conservation groups. Nevertheless, no data on the fauna of this area are available. From 21 January to 5 February, 1993, this region (approx. 27°30' - 28°00'S and 68°00' - 69°00'W) was partially explored to search for wild camelids. In 15 days approx. 230 km were covered on foot and by mule, from 3,500 m to about 4,900 m a.s.l..

The Guanaco *Lama guanicoë* lives in a wide range of arid environments, from sea level to over 4,000 m of altitude. It is geographically distributed from Patagonia to the northern Andes (Franklin 1975, 1983). The Vicuna *Vicugna vicugna* has a narrower distribution, both geographically and ecologically, than the Guanaco. Vicunas inhabit the high-altitude grasslands, between 3,000 - 3,500 m and 4,900 m, of

central Andes (Koford 1957; Franklin 1983). Range overlap of these two camelids is usually limited.

The present survey showed that the region of the Cuenca de la Laguna Verde is inhabited by populations of guanacos and vicunas living both allopatrically and sympatrically. The Vicuna was the most common large mammal. 62 groups were sighted (Fig. 1), with a conservative total number of 305 individuals. The largest group was composed by 25 adults. The altitudinal distribution of sightings ranged from 4,000 m to about 4,500 m. The most frequent sightings of guanaco were of solitary individuals (Fig. 1) and group size never exceeded 15. No less than 107 guanacos were counted, in a total of 32 groups. Most guanaco groups were found between 3,500 m and 4,200 m of altitude. The occurrence of signs of presence (i.e. dung-piles and footprints) suggested that the most intensively used sites by both species were those in proximity of water sources (salted lakes, locally called lagunas, and streams). Two main areas were found where these two camelid species lived sympatrically. One is located in the depression of the Laguna de los Aparejos and the other one surrounds the valley of the Cuerno stream.

Since the two sexes are indistinguishable in the field (Franklin 1983), the reproductive rate was measured as number of young on the total number of

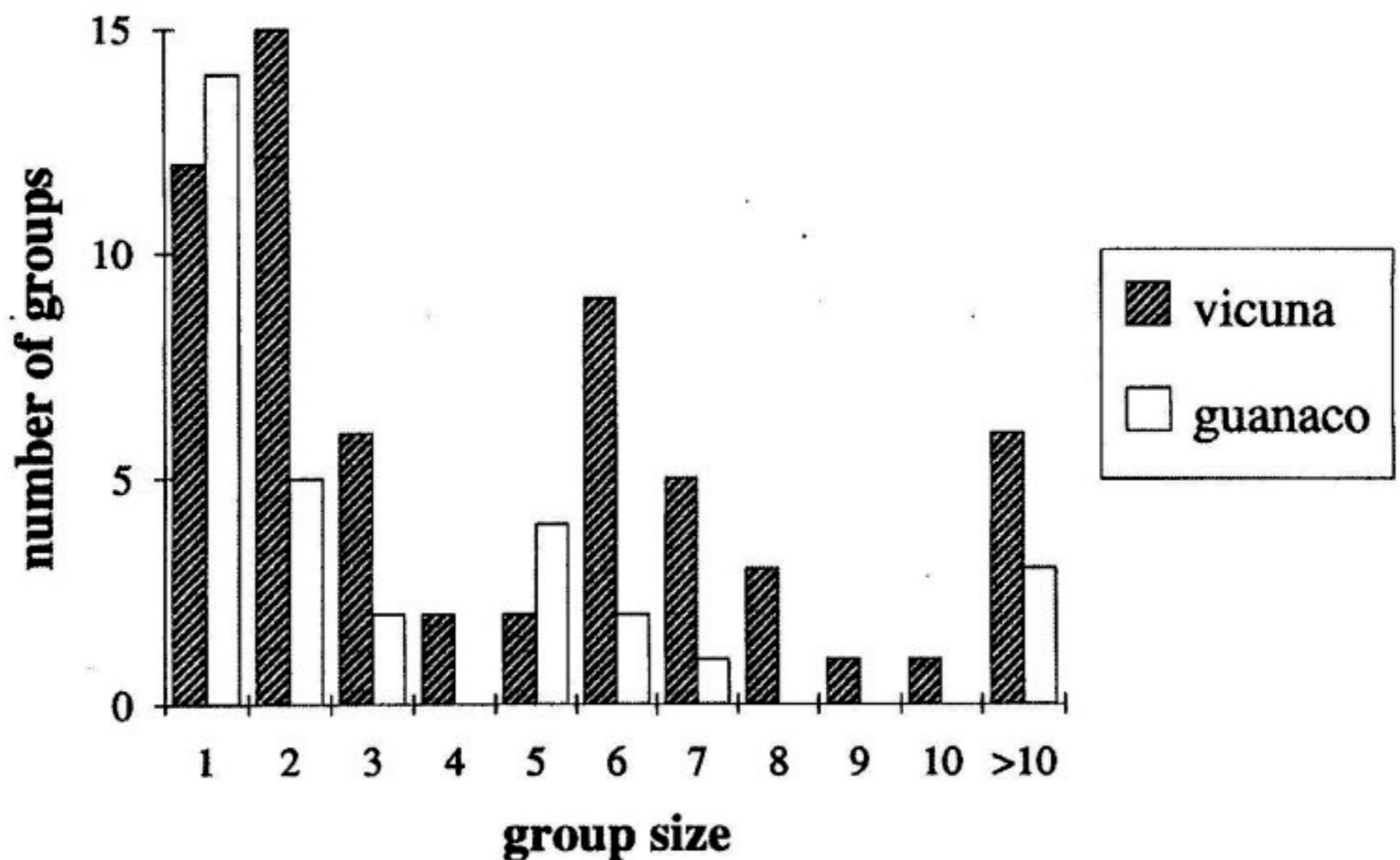


Fig.1. Group size of vicunas and guanacos during the survey.

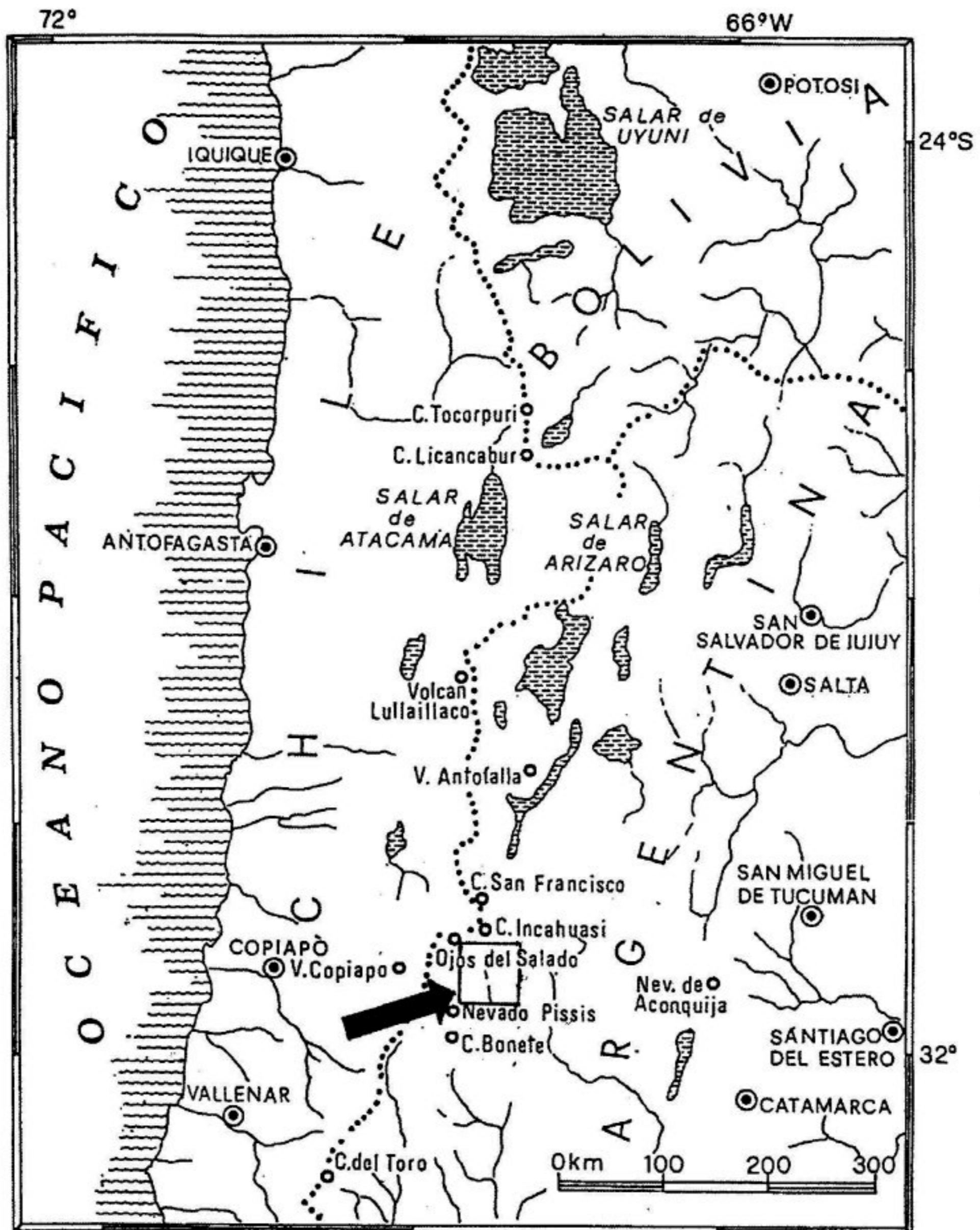


Fig.2. The geographical location of the area explored in the survey.

adults. This ratio was 0.10 for the Guanaco and 0.07 for the Vicuna. Interestingly, the reproductive rate resulted 0.20 for guanacos and 0.14 for vicunas in the northernmost part of the visited area, which is characterized by the presence of permanent sources of fresh water.

The Argentine Grey Fox *Dusicyon griseus* was the most common carnivore. A solitary individual was spotted and scats were readily found in four different sites, all characterised by their proximity to water. A sighting was the only certain record of the Cougar *Felis concolor* during the whole survey, although frequent predation on cattle was reported by local shepherds.

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