

## Recent sei whale (*Balaenoptera borealis*) sightings in the Gulf of California, Mexico

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### Summary

Sei whales (*Balaenoptera borealis*) seen in the Gulf of California are easily confused with Bryde's whales (*Balaenoptera edeni*). There have been only two reported sightings of sei whales in the Gulf of California. While conducting marine mammal surveys during 1993–1995, four sightings of sei whales were confirmed during winter, spring, and summer in the southwest Gulf of California. In all sightings, a single sei whale was observed. In three of the four sightings, the whale was found in association with one or more of the following species: fin whale (*B. physalus*), Brydes' whale (*B. edeni*), and the long beaked common dolphin (*Delphinus capensis*).

Key words: sei whale, recent sightings, Gulf of California.

### Introduction

The sei whale (*Balaenoptera borealis*), a pelagic temperate water species, is widely but sparsely distributed in the eastern North Pacific from the Gulf of Alaska to the eastern tropical Pacific (Leatherwood *et al.*, 1988). There is a general northward shift of the population to the waters off California in summer (Rice, 1963). In the Gulf of California, Mexico, no strandings of the sei whale have been reported. This species is considered to be rare (Aurióles Gamboa, 1993) compared to the more common Bryde's whale (*B. edeni*) and fin whale (*B. physalus*) (Tershy *et al.*, 1990; Gendron, 1993; Vidal *et al.*, 1993). In the gulf, the presence of these three rorquals makes the identification at sea difficult because of the similarity of the species. The difficulty in identification, especially between the sei and Bryde's whales, has been mentioned before. Non-confirmed sightings have been often presented as sei/Bryde's whales (Mangels & Gerrodette, 1994) or unidentified *Balaenoptera* whales (Tershy *et al.*, 1993; Gendron, 1993). This situation mostly happens in areas of overlap in the distribution of these

two species (Leatherwood *et al.*, 1988). This may have caused misidentification of sei for Bryde's whale in the Gulf of California from both observations at sea and in earlier whaling as suggested by Vidal *et al.* (1993).

There are only two previous sei whale reports in the Gulf of California (Connally *et al.*, 1986). These reported sightings were both made during winter and were in the same vicinity as our four confirmed sei whale sightings (Fig. 1, Table 1), in the southwest portion of the Gulf.

Between January 1993 and October 1995, non-systematic surveys of marine mammals in the southwest Gulf of California were made monthly to study distribution and to increase the photographic catalogue of various marine mammals, with emphasis on blue whales (*B. musculus*) and Bryde's whales. Observations were made from 8 m skiffs with 55 hp outboards and a 9 m inboard diesel vessel. A team of two to three observers plus a boat driver observed with eyes only, using 7 × 50 binoculars when a sighting was made. Survey effort and positions were obtained with a Global Positioning System (GPS). Monthly effort and rorqual sightings are presented in Table 2. Photographs were taken using a motordrive Olympus OM1 camera with 70–210 mm zoom lens and 400 ASA black and white Kodak TRI-X film.

During the survey period, unconfirmed *Balaenoptera* sightings were made, of which four were confirmed as sei whales. We used the characteristic features of the species (Leatherwood *et al.*, 1988) obtained from on-site observation and photographs as well as the general behavior observed. All four sightings were single animals observed in Bahía de La Paz (Fig. 1) and, in three of the four sightings, associated with other species (Table 1). The relevant distinguishing features observed were: the lack of a white right lower jaw (characteristic of fin whales) and the lack of ridges on the head (characteristic of Bryde's whales). Furthermore, Leatherwood *et al.* (1988) also mentioned the presence of a tall falcate dorsal fin and mottling on

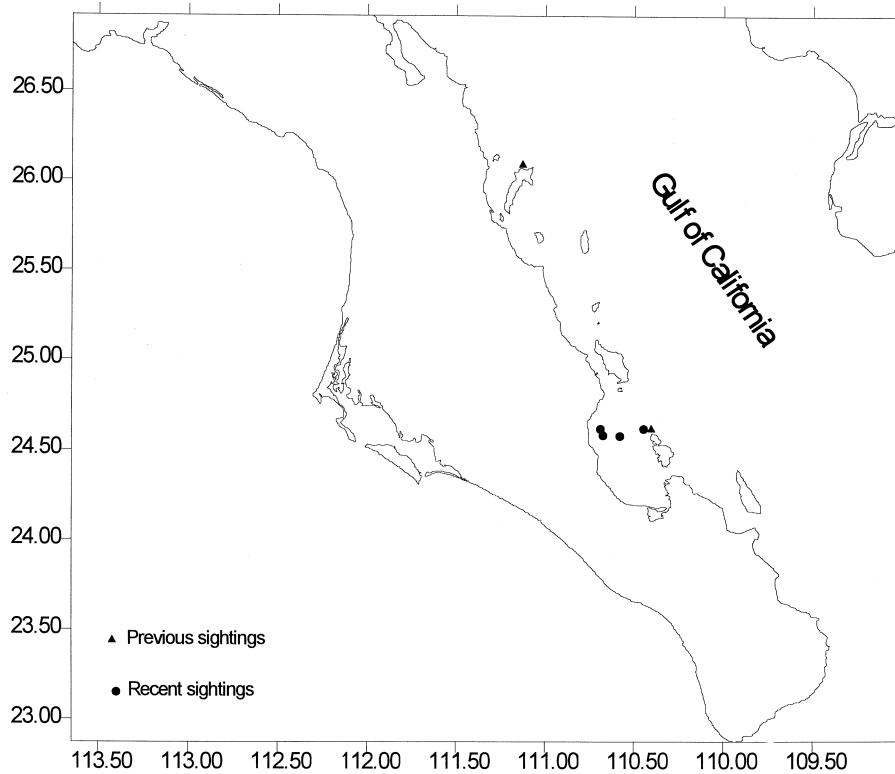


Figure 1. Locations of sei whale sightings in the Gulf of California.

the back close to the dorsal fin which were observed in two of our sightings (Fig. 2). In three of these four sightings, we saw the general diving pattern, mentioned in Leatherwood *et al.* (1988), of several

surface blows followed by short dives and infrequent long dives leaving a series of tracks on the surface as the animal moved its flukes. From our experience, this behavior appears to be a good clue

Table 1. Data related to sei whale sightings reported here

Date	Hour	Latitude	Longitude	Association
09 Apr 93	13:00	24°24.5'	110°34.5'	10 <i>D. capensis</i> , 1 <i>B. edeni</i>
11 Mar 94	17:48	24°37.0'	110°41.0'	2 <i>B. edeni</i>
18 Apr 94	12:06	24°36.7'	110°26.5'	
07 Sept 95	15:10	24°34.8'	110°40.1'	1 <i>B. edeni</i> , 2 <i>B. physalus</i>

Table 2. Search effort and number of rorqual sightings in the Bahía de La Paz area during the 1993–1995 period

	1993	1994	1995
Bryde's whale	16	7	19
Fin whale	25	49	19
Sei whale	1	2	1
Search effort (h)	396	319	231



**Figure 2.** (a) Photograph of the head of a sei whale showing the lack of rostral ridges. (b) Photograph of the dorsal fin of a sei whale showing mottling on the back.

in sei whale sightings before approaching the animal for confirmation.

In all sightings, at least 30 minutes were needed to confirm the identification by one or both authors, who are qualified field observers with at least 9 years experience in the Gulf of California. The only reliable feature to distinguish the sei from the Bryde's whale is the lack of ridges on the head, for which a close approach is necessary.

From these sightings, we found two interesting points. The first is the presence of a single animal in all sightings, which is different from the number of animals reported for the species in other areas (Lockyer, 1977; Schilling *et al.*, 1992). The second is the association with other rorquals. To our knowledge, there are no reports of these associations for sei whales. This report supports the suggestion of Vidal *et al.* (1993) about the possibility of misidentification of sei for Bryde's whale in the Gulf of California.

We hope this report will promote more time being spent to confirm each animal during a sighting, especially in the presence of Bryde's whale groups or mixed groups with fin whales in areas where all three species occur, as in the Gulf of California.

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