

## Recent Occurrences of the Green Turtle from British Columbia Waters

### Abstract

Seven recent occurrences of the green turtle from British Columbia waters are documented. There are only two previous reports of this sea turtle from the province. Records of fresh carcasses or live green turtles off British Columbia have been collected during the September–December period, outside the July–October turtle season for the northeastern Pacific. Based on carapace lengths, British Columbia occurrences appear to involve large juvenile and small adult turtles. Data on thermal tolerance in cheloniid turtles suggest that this species cannot survive for extended periods in British Columbia coastal waters. Although green turtle presence off British Columbia appears to be accidental, there is need for an organized effort to assess sea turtle status in British Columbia waters.

### Introduction

There are only two previously published records for the green turtle (*Chelonia mydas*) from British Columbia waters. An 11.8 kg green turtle, with a 47.6 cm carapace, was found near the high-tide mark at Springs Cove at the entrance to Ucluelet Inlet, Vancouver Island (48° 57'N 125°33'W) on 6 December 1954 (Carl 1955). Although alive when discovered, the turtle later died and is now housed in the collection of the Royal British Columbia Museum (RBCM 908.00). Gregory and Campbell (1984) state that this turtle was probably just off course. Hodge and Wing (2000) list repeated sightings of a live green turtle off Dundas Island in September 1981 (54°50'N 130°67'W). In the course of preparing a review of the status and conservation of marine turtles in Canadian waters we encountered seven additional recent occurrences of the green turtle off British Columbia. Here we document and discuss these new green turtle observations. The only other sea turtle species recorded off British Columbia is the very distinctive leatherback (*Dermochelys coriacea*) of which there are 22 documented reports, mostly of live animals. Recent records for the olive ridley sea turtle (*Lepidochelys olivacea*) and the loggerhead sea turtle (*Caretta caretta*) from Washington and Alaska suggest these turtles may be

recorded as accidentals off British Columbia in the future (McAlpine et al. 2002).

### Recent Occurrences

The seven new records are summarized in Table 1. Several of these are supported by photographs and in one case, specimen material. Correspondence, and photographs additional to those presented here, relating to these records have been archived in the RBCM and the New Brunswick Museum. Photo-identifications were confirmed following reference to Márquez (1990) and Pritchard and Mortimer (1999).

On 25 April 1994 a green turtle carcass washed ashore at Schooner Cove, Pacific Rim National Park, Vancouver Island (Rod Palm, Tofino, B.C. personal communication). The four, non-overlapping, lateral scutes characteristic of the green turtle are visible in Figure 1. We have contacted the respondents who observed green turtles reported by Ebbesmeyer (2000) in the Beachcomber's Alert Newsletter. Judith Perris (Ucluelet, B.C. personal communication) discovered a single green turtle carcass on 28 February 1997 along the west central coast of the Ucluth Peninsula, Vancouver Island. Rodney Schatz (Masset, B.C. personal communication) has confirmed that he observed four green turtle carcasses in the Queen Charlotte Islands during 1999–2000. Two turtles beached on 9 November and 16 November 1999. Again, the four, non-overlapping, lateral scutes characteristic of the green turtle are visible in photographs of these turtles (Figures 2 and 3). Both turtles were

<sup>1</sup>Author to whom correspondence should be addressed.  
E-mail: dmcalpin@nb.aibn.com

<sup>2</sup>Current address: World Wide Fund for Nature, GPO Box 528, Sydney, NSW 2001, Australia.

TABLE 1. New records for the green turtle from British Columbia.

Date	Location	Latitude/Longitude	Carapace Length	Remarks
25 April 1994	Schooner Cove, Pacific Rim National Park	49° 04' N 125° 48' W	~60 cm	decomposed carcass
9 November 1995	5 km south of Rose Point, Graham Island	54° 12' N 131° 38' W	71 cm	fresh carcass
28 February 1997	Ucluth Peninsula, Vancouver Island	48° 57' N 125° 35' W	~100 cm	carcass
16 November 1999	Fife Point, Graham Island	54° 06' N 131° 40' W	81 cm	fresh carcass
Late November 1999	East coast Graham Island	~ 54° 01' N 131° 43' W	81 cm	carcass
January 2000	East coast Graham Island	~ 54° 01' N 131° 43' W	unknown	carcass
28 January 2000	Metchosin, Vancouver Island	48° 26' N 123° 28' W	87 cm	carcass

observed along the east coast of Graham Island, the first about 5 km south of Rose Spit, the second at Fife Point. Turtles were fresh dead when discovered and the observer felt the first turtle may have been alive when initially beached. The two remaining green turtles were also discovered in the same area, between Rose Spit and 32 km south, one in late November 1999, the other in the first week of January 2000. On 28 January 2000 a decomposed female green turtle estimated to weigh 45 kg washed ashore at Metchosin,

Esquimalt Lagoon, Vancouver Island. The stranding was reported in the local newspaper (Curtis 2000) on 29 January and the skeleton has been added to the RBCM collection (catalogue number 1935.00). Although it was not possible to determine cause of death for this animal, a necropsy revealed a rolled piece of clear plastic wedged in the pylorus, possibly causing partial or intermittent obstruction (Helen Schwantje, DVM, Post-mortem report on Green Sea Turtle, RBCM files).

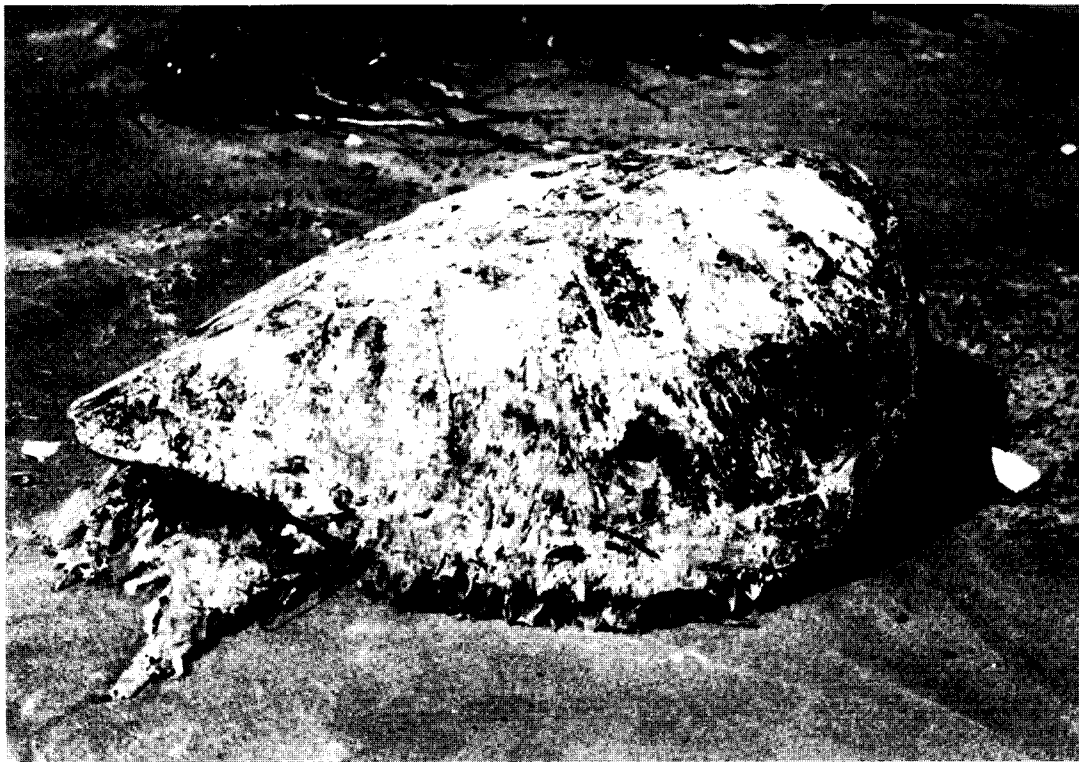


Figure 1. Decomposed carcass of a 60 cm carapace length green turtle washed ashore in Pacific Rim National Park, British Columbia on 25 April 1994 (R. Palm photo)



Figure 2. Carapace of a fresh 71 cm green turtle carcass washed ashore near Rose Spit, Graham Island, British Columbia on 9 November 1999. (R. Schatz photo)

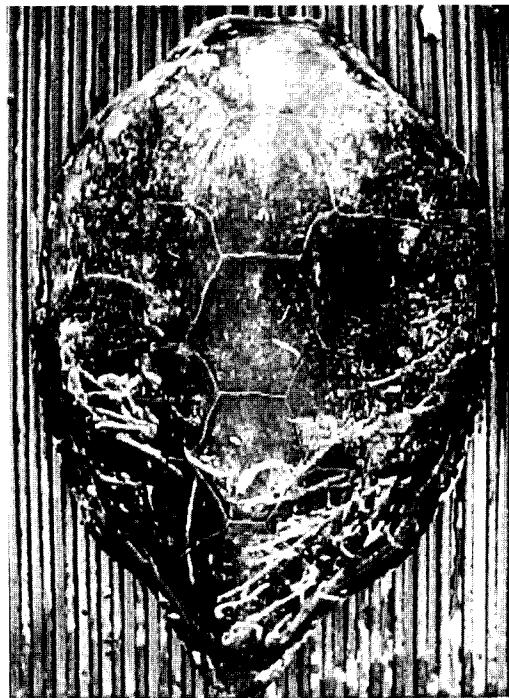


Figure 3. Carapace of a fresh 81 cm green turtle carcass washed ashore at Fife Point, Graham Island, British Columbia on 16 November 1999. (R. Schatz photo)

## Discussion

British Columbia records of live green turtles or carcasses known to be fresh have been made during the September-December period (Table 1; Carl 1955, Hodge and Wing 2000). All of these records are outside the July–October turtle season for the northeast Pacific (Hodge and Wing 2000). Recorded carapace lengths range from 47.6–87.0 cm.

Although size at sexual maturity in the green turtle varies between the sexes and among populations (Ernst et al. 1994), British Columbia records appear to involve large juvenile and small adult turtles. Cheloniid turtles are very close to their minimum thermal tolerance when they enter inshore Canadian waters, suggesting that the green turtle cannot survive for extended periods in coastal British Columbia (Schwartz 1978, Birse and Davenport 1987, Davenport 1997). On the basis of the single live green turtle recorded from British Columbia at that time, Gregory and Campbell (1984)

suggested that this species should be considered accidental in the province. The current few reports of live green turtles in British Columbia waters subsequent to 1955 support this opinion. However, Hodge and Wing (2000) consider that sea turtles are too frequent in Alaskan waters to be an accidental part of the marine fauna. On the basis of four live sightings and four carcasses they list green turtles as rare. Although sea turtles appear to be less common off western than eastern Canada (McAlpine et al. 2002), the few British Columbia records in the literature probably under-represent the number of sea turtles entering British Columbia waters. An organized effort to assess sea turtle status off British Columbia is needed.

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