

# KUHLINGS LONG-NECK TURTLE

*Chelodina kuchlingi* sp. nov. HOLOTYPE W.A.M. R29411. COLLECTED BY H. BUTLER 1966

## HISTORY AND DISTRIBUTION

Kalumburu is an aboriginal mission close to the coast in the north west Kimberley region of Western Australia. It is possibly the remotest location in Australia with vehicle access and it was not until 1958 that the first motor driven road transport arrived. Previous visits by Europeans were by sea via Napier Bay, or to the Mission's air strip. The mission is 5 km upstream from the mouth of the King Edward River and approximately 15km downstream where the Carson and the King Edward Rivers meet and is accessible by four wheel drive vehicles 265 km in from Gibb River Road.

It was at Kalumburu that famed naturalist Harry Butler collected a single long-necked turtle which was subsequently lodged in the Western Australia Museum in 1966. This specimen clearly represents a distinctive new species of turtle in the *rugosa* group. Its population status and distribution are unknown. This turtle was recently sent to the Australian Museum in Sydney to be studied. A map of the region shows that the King Edward and Carson Rivers almost meet once they drop from the higher country and at a number of locations this drainage system is separated from the Drysdale River by just a few kilometres. A detailed map may show flood plain connections. Both systems and numerous others

appear to share a common coastal flood plain which may give this turtle a wide distribution, but all of this country is inaccessible to vehicular access.

## TYPE DATA

HOLOTYPE W.A.M. R29411. Adult female with a carapace length of 234 mm. Collected by H. Butler during the summer of 1966 at Kalumburu, N. W. Australia, (14°18'S x 126°28'E).

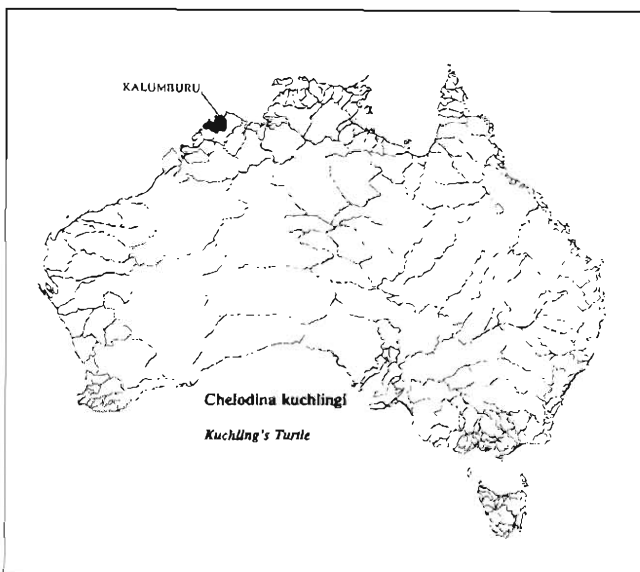
## ETYMOLOGY

Named for Dr Gerald Kuchling of Western Australia. His unrelenting dedication to the Western Swamp Turtle has ensured its survival.

## DIAGNOSIS

A new species of long-necked turtle is described here, from the Kimberley region of north-west Australia. It is known only from a single specimen collected by Harry Butler and said to come from Kalumburu.

It is similar to those freshwater turtles from northern Australia referred to as *Chelodina rugosa*, which comprise several species. *Chelodina kuchlingi* has a round head in profile and an evenly oval and light fawn coloured carapace which easily distinguishes it from those *Chelodina rugosa*-like turtles in the Kimberley and Arnhem Land regions. These turtles have a wedge shaped head in profile and an oblong shaped and very dark, almost black coloured carapace. *Chelodina kuchlingi* can be distinguished from those populations currently assigned to *Chelodina rugosa* in the lowland waterways of the Northern Territory and Queensland by the shape and texture of the carapace. The carapace is similarly coloured in the two species but the shell of *Chelodina kuchlingi* is rounded and the shields have radiating rugosities whereas *Chelodina rugosa* is pear or oblong shaped and smooth.





*Chelodina kuchlingi*

W.A.M. R29411

Carapace length:

Straight line: 234 mm

Width: 181 mm

Central: (Vertebral)

	Length	Width
C1	56.5 mm	63.5 mm
C2	50 mm	44.5 mm
C3	43 mm	43.5 mm
C4	36.5 mm	42 mm
C5	36.5 mm	40 mm

Plastron length: (overall) 194 mm

Plastron width: 95 mm

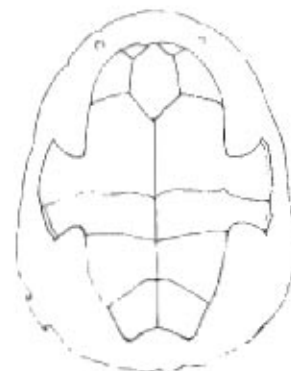
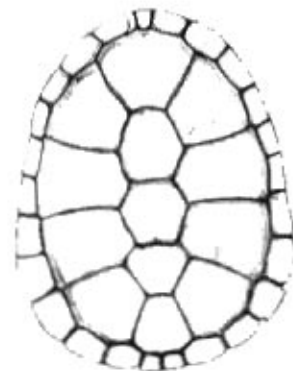
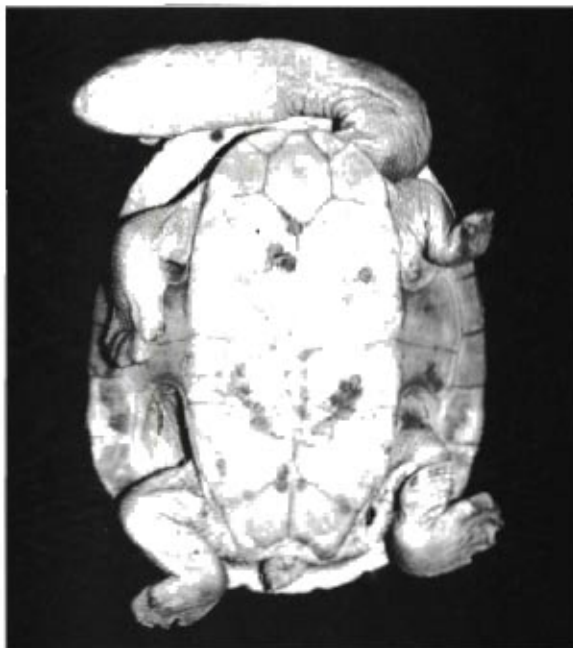
Head width: 47 mm

Bridge width: 47.5 mm

Lengths:

- Pectoral 50 mm
- Abdominal 31 mm
- Femoral 27.5 mm
- Anal 30.5 mm

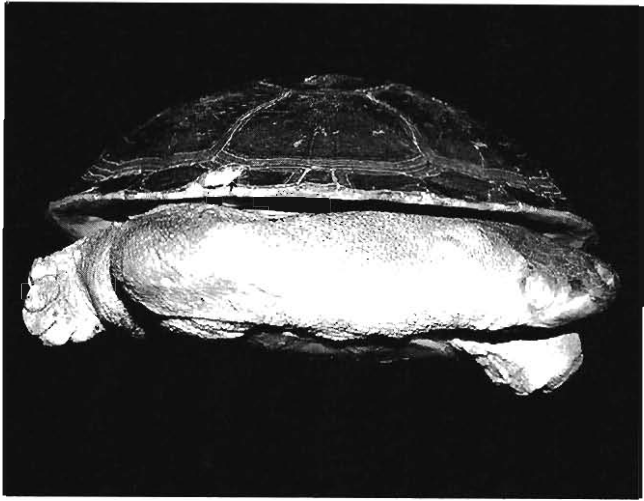
◆ *Chelodina kuchlingi* Holotype W.A.M R.29411



**DESCRIPTION**

The long-necked turtle is preserved in spirits and measures 234 x 181 x 92 mm deep. When viewed dorsally the carapace is broadly oval, with narrowing from M6 forward. The widest point is M8.

The carapace, when viewed dorsally or laterally is evenly arched. There is slight shelving on the marginal shields opposite the bridge, less than the turtle referred to as the Kimberley *rugosa*. The



▲ *Chelodina kuchlingi* Holotype W.A.A R29411.

centrals are wider than long, although C3 is near equal.

One of the most striking characteristics are the radiating rugosities on all of the carapace shields. This is similar to the markings normally present on juvenile *Chelodina novaeguineae*. To a lighter degree they are also on the marginals and rather than radiate from near the centre of the shields they commence from the outer edge.

All of the centrals have a small but distinctive indication of central ridging. From each of these small humps the radiating begins. The costals are similarly raised but to a lesser degree, they are best detected by running your finger over the shields, although the lines pin-point the raised area.

The plastron measures 194 mm and the rounded anal notch is 9 mm deep. The anterior lobe is 95 mm wide and both lobes are slightly raised.

The bridge at its narrowest point is 47 mm, notably longer than on the rugosa. The intergular is marginal.

Colour: The smooth carapace is shiny mid-fawn with a lighter shade around the edge of the marginal, a continuation from the light fawn of the plastron and bridges. The dorsal skin is now a faded grey, ventrally a creamy yellow.

The head is 43 mm at the tympanum and the skull length approximately 67 mm. The lateral view of

the head is not a chisel shape like the Kimberley longneck, but is similar in profile to *Chelodina rugosa*. The carapace and plastron shields have distinctive annuli.

The specimen is not in good condition and my recent enquiries to Harry Butler indicated that the turtle was collected during a cyclone in this remote region. All of its claws are worn, as is the plastron - there are holes which appear to be drilled in M2 left and right, one each side. That on the right hand is well worn as shown in the photograph, while the hole on the opposite side is not noticeable unless the neck is repositioned in which case the hole is plainly visible. When held aloft to the light, only one layer of lamina covers the exit. This gives the impression of a long time wound. The outer edge of some of the rear marginals have a slight indication of shell decay.

At the time of writing (April 1994) I had been in contact with Fr. Anscar McPhee at the Kalumburu Mission for a number of months, and he has shown the Aboriginal people numerous photographs of longnecked turtles on my behalf. This Kalumburu longnecked turtle is not known to many of them. Some say that occasionally they are seen in the same lagoons as the 'Black Longneck', (Kimberley Longneck).

#### COMPARATIVE SIZES OF SOME TURTLES IN THE *C. rugosa* GROUP

	Kalumburu	Kimberley	Kimberley
	f	f	f
CL	234	240	207
CW	181	172	155
CD	92	85	70
PL	194	200.5	168
PW	95		75
BW	47		40
HW	43	47.7	44
	Arnhem Land	Darwin.	Healy. R
	f	N.T	Cape York
		f	f
CL	217.5	276	240
CW		180	181
CD		106	95
PL	175.8	230	211
PW		108	97
BW		45	42
HW			44

	Jardine. R North Qld	Gilbert. R. Qld	Gilbert. R Qld
	m	f	f
CL	207	264	227
CW	147	195	173
CD	74	112	96
PL	168	231	195
PW	76	109	91
BW	35	48.5	39
HW	36.5	51.5	

CL carapace length, CW carapace width, CD carapace depth, PL plastron length, PW plastron width, BW bridge width, HW head width.

## ACKNOWLEDGMENTS

My gratitude goes first to Gerald Kuchling who informed me that this species was in the Western Australian Museum and had been overlooked for 27 years. My gratitude also to Laurie Smith of the Western Australian Museum who loaned it to Ross Sadlier of The Australian Museum on my behalf. Thanks also to Ross for manuscript comments and Colin South who did my line drawings.





...ning and Bellinger Rivers.  
...ning species is distinctive.



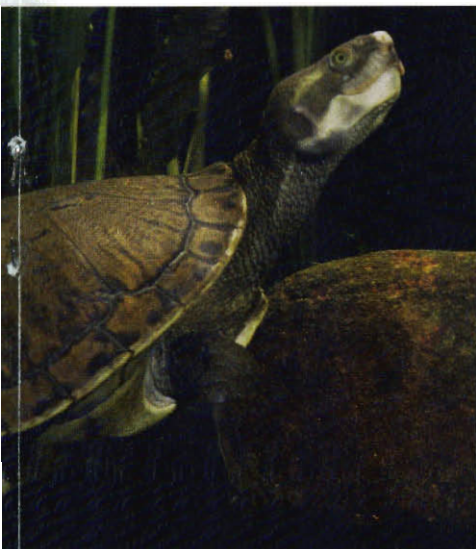
A large juvenile George Turtle, their eye colour would be  
Australia's most attractive.



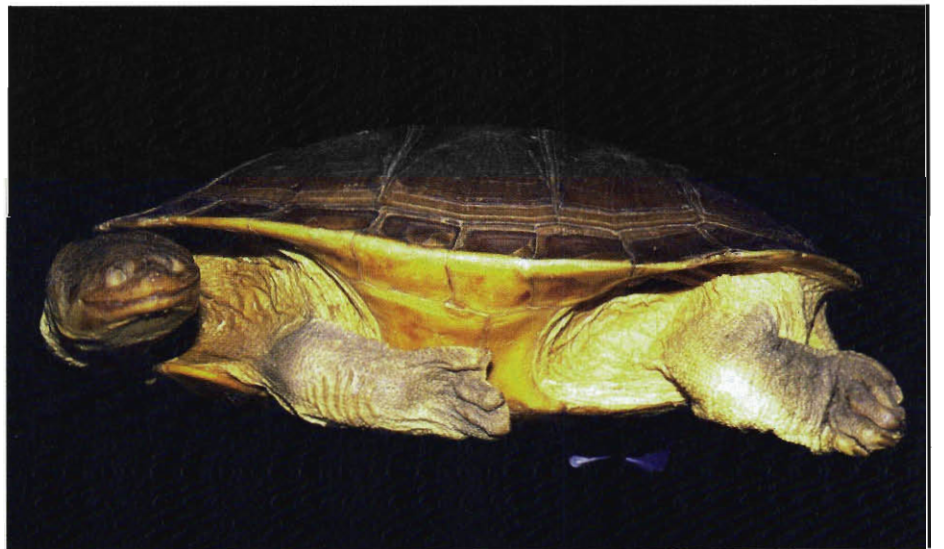
River drainage.



Irwin's Turtle.



...n Policeman Crossing, Daly



*Chelodina kuchlingi* Holotype W.A.M R29411.