

these species, the results of which are summarised in Tables II (juveniles) and III (adults). Table II is based on two males, carapace width ca 10 and 14mm, of *N. integrifrons* from the Port Phillip Survey material and a male, c.w. ca 13mm (Aust. Mus. P.5970) of *N. tuberculosus* from southern New South Wales; Table III is based on a male, c.w. ca 76.5mm (AM P.11422) of *N. integrifrons* from Port Phillip, Victoria, and a male, c.w. ca 85mm (AM E.6082), of *N. tuberculosus* from Bay of Fires, Tasmania. Small specimens of the two species are distinguished most obviously by the shape of the junction of the frontal and orbital margins and the ornamentation of the cheliped carpus. There are also differences in the shape of the penultimate segment of the abdomen in the males. The shape of this segment in large males is the same in both species—the proximal width is ca 1.3 times the distal width, the lateral borders are straight and the junction with the ultimate segment is a small notch. However, in moderately large to very large specimens there continue to be differences in the shape and ornamentation of the front and the ornamentation of the cheliped carpus. Specimens of *N. integrifrons* of intermediate size possess scattered hairs on the carapace and there are no greatly marked differences between intermediate specimens of the two species in arrangement of tubercles on the carapace.

Though Stephenson and Campbell (1960: 83) repeat old records of *N. integrifrons* from New Zealand there is no recent record of this species known to us. As Chilton and Bennett (1929: 754) point out, three overseas workers reported it from New Zealand last century but it still "remains unknown to local naturalists". Bennett (1964: 14) firmly lists it as an Australian species incorrectly recorded from New Zealand.

#### THE REMAINING SPECIES *N. bullatus* AND *N. spinifrons*

In 1924 Balss described a new species of *Nectocarcinus*, *N. bullatus*, from the Juan Fernandez Islands off Chile in the south eastern Pacific. His description was

TABLE II.—Summary of differences between small specimens of *N. integrifrons* and *N. tuberculosus*.

Character	<i>integrifrons</i>	<i>tuberculosus</i>
Anterolateral teeth of carapace	2nd in higher plane but parallel with posterior border of 1st.	sharp spines, 2nd upwardly directed, not parallel with 1st.
Frontal margin of carapace	smoothly but weakly convex, uninterrupted or sometimes with a very shallow and minute central notch; junction with orbital margin smoothly rounded, a shallow concavity above antenna.	smoothly and obviously convex, with a strong, obvious V-shaped notch; junction with orbital margin forming a definite angle, a shallow notch above antenna.
Inner dorsal margin of cheliped carpus (wrist)	completely lacking spines or tubercles distal to spinous inner angle.	with a few long spines distal to spinous inner angle.
Lateral junction of penultimate and ultimate segments of male abdomen	very shallowly notched.	distinctly and deeply notched, lateral margin of penultimate segment distally and ultimate segment proximally strongly convex.
Shape of penultimate segment of male abdomen	lateral margins straight, distal margin $\frac{2}{3}$ width of proximal margin.	distal margin and proximal margin subequal in width.