

patterns described. Then, many subsequently published illustrations (Utinomi, 1975; Kamezaki *et al.*, 1988, and scientific papers (Minei, 1973; Miyake, 1978; Miyake and Imafuku, 1980; Miyake, 1982; Murata *et al.*, 1991) made the same error. Haig and McLaughlin (1983) have pointed out that the presumed Japanese "*C. seurati*" of Miyake (1978) does not agree with the description by Forest's (1951). The Japanese name "Usuirosango-yadokari" for "*C. seurati*", meaning "pale coral hermit crab", also implies that Japanese "*C. seurati*" is exactly identical with the real *C. vachoni*. Therefore, we consider that there is no any distributional record of *C. seurati* in Japan and we suggest that the northern limit of distribution of this species extends only to Lanyu Island, Taiwan

(22°N) and Oahu, Hawaii (21°N) (Reese, 1969). From the studies of Forest (1951, Holthuis (1953), Morgan (1991) and Poupin (1994, 1996), the southern limit of *C. seurati* ranges only to northwestern Australia (approx. 10° S), Tuamotu, Society and Gambier (23.5° S). In addition, *C. seurati* lives in high intertidal pool of limestone where the higher temperature enables it to tolerate the temperature as high as 40 to 43°C (Reese, 1969) in the tropical area. Therefore, it is possible that *C. seurati* is prone to be a tropicopolitan species distributed between the tropic of Cancer (23.5° N) and the tropic of Capricorn (23.5° S).

For misidentifications of the two species mentioned above, the distribution of *C. vachoni* can be well revised. The northern limit of the

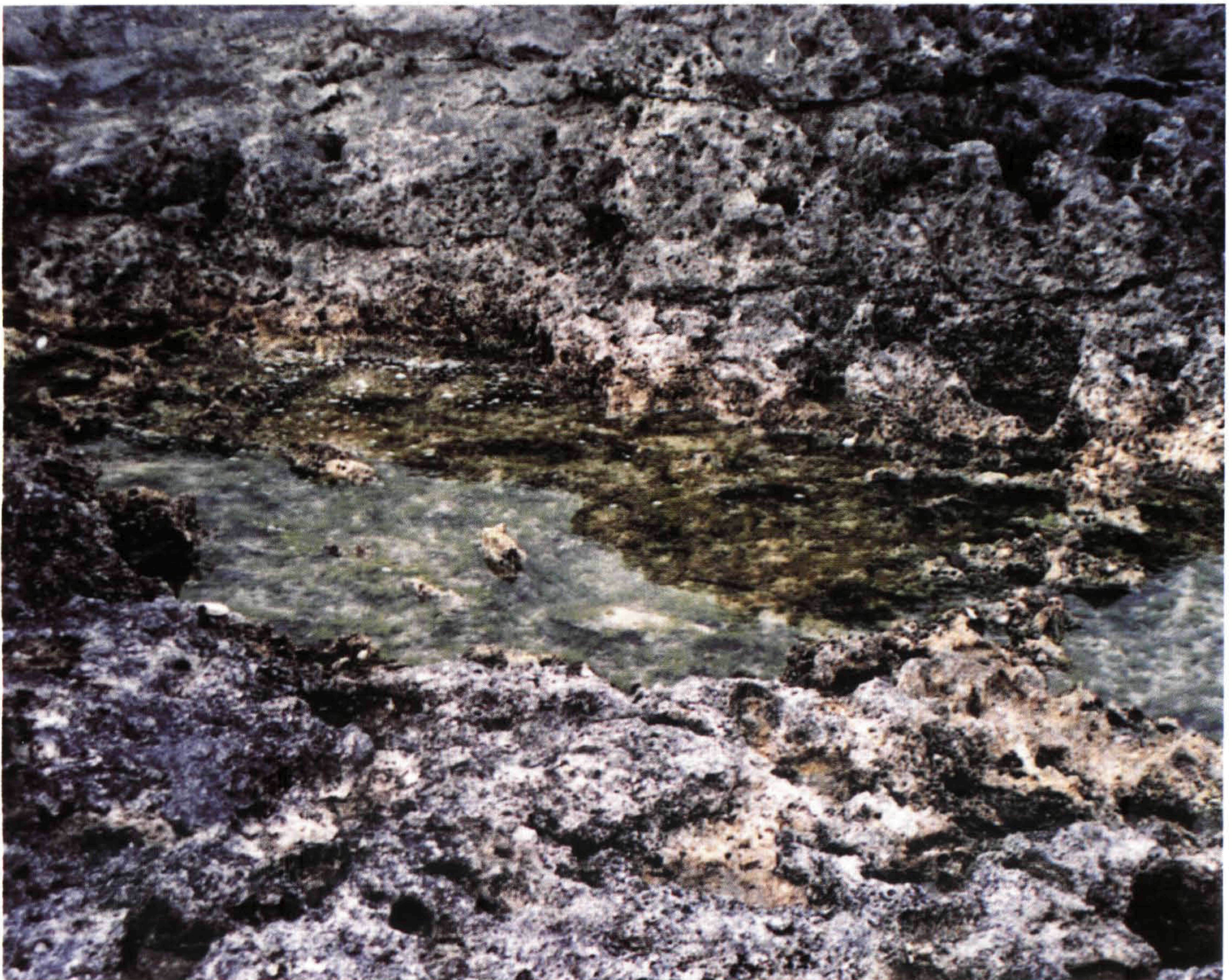


Fig. 6. Atypical habitat of *Calcinus seurati*, the intertidal pool of the coral reef.