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CYCLE OF COLOUR CHANGES IN CATTLE EGRETS *Ardeola ibis (coromandus)* IN AUSTRALIA DETERMINED FROM FIELD OBSERVATIONS OF MARKED BIRDS

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Colour changes in nestlings and the timing and nature of changes in colour which take place in adults before, during and after the nesting season, as determined from field observations of marked birds, are described for the Cattle Egret *Ardeola ibis coromandus* at two Australian breeding colonies. Nestlings have a yellow beak at hatching, which changes to yellow-tipped grey or black by about ten days and by fledging at about 45 days, to diffuse yellow and grey. By time of independence the beak has changed to yellow, but some retain the grey or black for up to two months after fledging. All birds two years of age or older attained full orange-coloured breeding plumage and during courting gained magenta face colour. First-year birds of each sex included some with typical full orange-coloured breeding plumage (22%), some with varying degrees of pale colouration (29%), some with complete but pale colouration (9%), while others remained white (40%). First-year birds of each pattern gained magenta courting colour on the face, attempted to attract a mate, or mated and successfully reared young. Wide variation occurred in the dates of onset and time for completion for both pre-breeding and post-breeding moults. Significant variation was found in the timing of onset of magenta facial colours and return to normal non-breeding yellow.