

## Additional information on Little Egrets *Egretta garzetta* breeding in Aceh province, far-northern Sumatra

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**Ringkasan:** Kunjungan-kunjungan atas dua koloni burung bangau hampir kepada pekan Banda Aceh semasa pertengahan Januari 2012 terdapat Burung Bangau Kecil yang bersarang. Kebanyakan individu mempunyai jarinya kuning. Variasi dalam corak dan luas warna ini menyadangkan bahawa burung-burung ini membentuk populasi diantara subspecies *garzetta* dan *nigripes*.

### Introduction

Until fairly recently, it was accepted that the Southeast Asian breeding range of the yellow-toed nominate subspecies of the Little Egret *Egretta g. garzetta* terminated on the continent, while that of the black-toed, mainly southern hemisphere-breeding *E. g. nigripes* extended from western Java and, probably, southern Borneo through Wallacea. The area in between these ranges was thought to be visited only by non-breeding migrants, mainly from the north. That no longer holds. Along with a number of other large waterbirds, breeding Little Egrets have increased and spread, including into the 'vacant' zone. East to west, there is video evidence ([www.youtube.com/watch?v=LMQpeZs3bOw](http://www.youtube.com/watch?v=LMQpeZs3bOw)) that Little Egrets of an unidentified subspecies now nest on Mindanao, Philippines; and in northern Borneo, amid an increasing presence of presumed migrant yellow-toed *garzetta* (Smythies & Davison 2000), a few breeding attempts have been reported from coastal Brunei (Mann 2008, Vowles & Vowles 1985), again of an unconfirmed subspecies. A claim of nesting in neighbouring western Sabah in 1983 (Sheldon & Marin 1985), on the other hand, appears later to have been withdrawn (Sheldon *et al.* 2001).

On the continent, the effects have been more dramatic. It is not known when breeders crossed south into the Thai-Malay Peninsula (Wells 1999) but nesting was unknown or unconfirmed prior to 1998-99, when substantial active breeding colonies were found on the Thale Noi wetland southern Thailand at a latitude of 7°48'N (Kaewdee *et al.* 2002). Two years later, yellow-toed breeding birds were present in Peninsular Malaysia and from at least 2005 a few to up to 50 pairs of typical nominate *garzetta* have nested alongside other heron species at several freshwater sites on its west coast plain, south to latitude 3°12'N in Selangor state (Shepherd 2007; Wells 2007) – an expansion across over 900 km of latitude within maybe less than two decades.

Marle & Voous (1988) treated Sumatra as being wholly outside the Little Egret breeding range, but visited by migrants that MacKinnon & Phillipps (1993) claimed included nominate *garzetta*. Verheugt *et al.* (1993) found Little Egrets common along the south coast (Selatan province), all those seen well enough identified as *nigripes*, 'presumed resident' although no proof of breeding was obtained. In neighbouring coastal Lampung province, Holmes & Noor (1995) saw

birds of undetermined subspecies in breeding plumage visiting mixed-species waterbird colonies but, again, without confirming actual occupied nests. Nesting in Sumatra was finally demonstrated along its east coast by Iqbal *et al.* (2012) during 2008-2009. Moreover, at one of their sites, near Lhokseumawe in northeastern Aceh province, these observers reported that slightly more than half of the active nests located were attended by egrets with yellow feet, the first definite record of such birds breeding anywhere in Indonesia. Here, we add to their findings with more observations from Aceh.

## Results

During 11-13 January 2012, we toured heronries known to one of us (SR) in *Rhizophora* mangrove stands on tambaks repaired after the 2004 tsunami, either side of the mouth of Alor Naga Rriver, north of Banda Aceh town. On an evening (1600-1700 hrs) visit to one such heronry in extensive, unpruned, 2-3 m high growth near Kampung Tibang, west of the river mouth, we counted *c.*100 Little Egrets, *c.*50 Great Egrets *Ardea alba*, one Intermediate Egret *Mesophoyx intermedia* and 10 Cattle Egrets *Bubulcus ibis*, using binoculars (x10) and a telescope (x20-60) from nearby bunds, at ranges of 30-150 m. On the following morning (0730-0900 hrs), numbers of Great and Cattle Egrets had dropped. Great, Intermediate and Cattle Egrets were exclusively in non-breeding bare part colours and plumage, and appeared to have been using the site as a roost. Little Egrets, on the other hand, were all in breeding plumage and displaying aggressively towards neighbours. Most of those seen well also showed courtship colours, their facial skin being blue to peak-phase magenta. Wherever the crown of the forest could be looked into they were attending or on nests, apparently at the incubation stage as no food deliveries were noticed or chicks seen. Among birds viewed closely in flight or while on exposed perches, no more than one or two - certainly less than 5 percent - showed all-black toes; the rest had them all-yellow to, commonly, yellow with a mid-dorsal stripe of dark that narrowed distally and mostly did not reach outer phalanges.

A second, much smaller colony occupied a relict clump of *Rhizophora* isolated in a flooded tambak immediately behind the beach at Kampung Lam Nga, east of the river mouth. This site, viewed from only one side, again included small numbers of non-breeding Great and Intermediate Egrets, with an estimated 15-20 pairs of nesting Little Egrets. These latter showed the same plumage and more or less the same range of bare part characters as those at Kampung Tibang.

## Discussion

One or two individuals at Kampung Tibang showed (peak courtship) orange-red rather than yellow toes, but none at either site had yellow extending onto the base of the tarsus as commonly seen in mainland Southeast Asia, including the Thai-Malay Peninsula. Provisionally, this and the range of colour patterning on toes suggested these populations were less likely to be pure nominate *garzetta* than at a perhaps early stage of intergrading with subspecies *nigripes*. Note also that these and all of those described by Iqbal *et al.* (2012) were mangrove nesters whereas, to date, undoubted nominate *garzetta* in the Peninsula has bred inland, exclusively in freshwater habitats. Mangroves may be the only relatively safe site left for large

waterbirds around Banda Aceh but this behavioural difference between *garzetta* and *nigripes* has been hinted at elsewhere in Southeast Asia (Smythies & Davison 2000). At least it may be said that nothing here lends support to speculation by Rasmussen & Anderton (2005) that these two taxa have diverged to species level.

Finally, we note that Iqbal *et al.* (2012) mentioned having found Intermediate Egrets on nests in North Sumatra province. They omitted to point out that this, too, is a new Sumatran breeding record, indeed a possible first for all of the Sunda Region equatorial zone north of Java. This egret started to nest in Peninsula Malaysia in 2012, thus far at only one known site (Amar Singh, pers. comm.). A lone, apparently adult Little Cormorant *Phalacrocorax niger* in non-breeding plumage, with egrets at Kampung Lam Nga on 13 January 2012, may be another significant record for this part of Sumatra.

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