but their relations to the last require further investigation. Some of them are called “ humming-birds ” by Anglo-Indians and colonists, but with that group, which, as before indicated (see Humming-bird), belongs to the *Picariae,* the sun-birds, being true *Passeres,* have nothing to do. Though part of the plumage in many sun-birds gleams with metallic lustre, they owe much of their beauty to feathers which are not lustrous, though almost as vivid,@@1 and the most wonderful combination of the brightest colours—scarlet, purple, blue, green and yellow —is often seen in one and the same bird. One group, however, is dull in hue, and but for the presence in some of its members of yellow or flame-coloured precostal tufts, which are very characteristic of the family, might at first sight be thought not to belong here. Graceful in form and active in motion, sun-birds flit from flower to flower, feeding on small insects which are attracted by the nectar and on the nectar itself; but this is usually done while perched and rarely on thc wing as is the habit of humming-birds. Thc extensible tongue, though practically serving the same end in both groups, is essentially different in its quasi-tubular structure, and there is also considerable difference between this organ in the Nectariniidae and the Meliphagidae.@@2 The nests of the sun-birds, domed with a penthouse porch, and pensile from the end of a bough or leaf, are very neatly built. The eggs are generally three in number, of a dull white covered with confluent specks of greenish grey.

The Nectariniidae form the subject of a sumptuous *Monograph* by G. E. Shelley (4t0, London, 1876-1880), in the coloured plates of which full justice is done to the varied beauties which these gloriously arrayed little beings display, while almost every available source of information has been consulted and the results embodied. This author divides the family into three sub-families: Neodrepaninae, consisting of a single genus and species peculiar to Madagascar; Nectariniinae, containing 9 genera, one of which, *Cinnyrιs,* has more than half the number of species in the whole group; and Arachno- therinae (sometimes known as “ spider-hunters ''), with 2 genera including 11 species—all large in size and plain in hue. To these he also adds the genus *Promerops,@@z* composed of 2 species of South African birds, of very different appearance, whose affinity to the rest can as yet hardly be taken as proved. According to E. L. Layard, the habits of the Cape *Promerops,* its mode of nidification, and the character of its eggs are very unlike those of the ordinary Nectari­niidae. In the British Museum *Catalogue of Birds* (ix. 1-126 and 291) H. J. Gadow has more recently treated of this family, reducing the number of both genera and species, though adding a new genus discovered since the publication of Shelley’s work.

(A. N.)

**SUN-BITTERN,** the *Eurypyga helias* of ornithology, a bird that has long exercised systematists and one whose proper place can scarcely yet be said to have been determined to everybody’s satisfaction.

According to Pallas, who in 1781 gave (*N*. *nördl.* *Beyträge*, vol. ii. pp. 48-54, pl. 3) a good description and fair figure of it, calling it the “ Surinamische Sonnenreyger,” *Ardea helias,* the first author to notice this form was Fermin, whose account of it, under the name of “ Sonnenvogcl,” was published at Amsterdam in 1759 *(Descr., &c., de Surinam,* ii. 192), but was vague and meagre. In 1772, however, it was satisfactorily figured and described in Rozier’s *Observations sur la physique,* &c. (vol. v. pt. 1, p. 212, pl. 1), as the *Petit paon des roseaux—*by which name it was known in French Guiana.@@4 A few years later D’Aubenton figured it in his well-known series *(Pl. Enl.,* p. 782), and then in 1781 came Buffon *(II.N., Oiseaux,* vol. viii. pp. 169, 170, pl. xiv.), who, calling it “ Le Caurlâ ou petit paon des roses,” announced it as hitherto undescribed and placed it among the Rails. In the same year appeared the above-cited paper by Pallas, who, notwithstanding his remote abode, was better informed as to its history than his great contemporary, whose ignorance, real or affected, of his fellow-countryman's priority in the field is inexplic­able; and it must have been by inadvertence that, writing “ roses ’’

for “ roseaux,” Buffon turned the colonial name from one that had a good meaning into nonsense. In 1783 Boddaert, equally ignorant of what Pallas had done, called it *Scolopax solaris,@@6* and in referring it to that genus he was followed by Latham *(Synopsis,* iii. 156), by whom it was introduced to English readers as the Caurale Snipe." Thus within a dozen years this bird was referred to three perfectly distinct genera, and in those days genera meant much more than they do now. Not until 1811 was it recognized as forming a genus of its own. This was done by liliger, whose appellation, *Eurypyga* has been generally accepted.

The sun-bittern is about as big as a small curlew, but with much shorter legs and a rather slender, straight bill. The wings are moderate, broad, and rounded, the tail rather long and broad. The head is black with a white stripe over and another under each eye, the chin and throat being also white. The rest of the plumage is not to be described in a limited space otherwise than generally, being variegated with black, brown, chestnut, bay, buff, grey and white—so mottled, speckled and belted either in wave-like or zigzag forms as somewhat to resemble certain moths. The bay colour forms two conspicu­ous patches on each wing, and also an antepenultimate bar on the tail, behind which is a subterminal band of black. The irides arc red; the bill is greenish olive; and the legs are pale yellow. As in the case of most South American birds, very little is recorded of its habits in freedom, except that it fre­quents the muddy and wooded banks of rivers, feeding on small fishes and insects. In captivity it soon becomes tame, and has several times made its nest and reared its young (which, when hatched, are clothed with mottled down; *Proc. Zool. Soc.,* 1866, p. 76, pl. ix. fig. 1) in the Zoological Gardens (London), where examples arc generally to be seen and their plaintive piping heard. It ordinarily walks with slow and precise steps, keeping its body in a horizontal position, but at times, when excited, it will go through a series of fantastic performances, spreading its broad wings and tail so as to display their beauti­ful markings. This species inhabits Guiana and the interior of Brazil; but in Colombia and Central America occurs a larger and somewhat differently coloured form which is known as *E. major.*

For a long while it seemed as if *Eurypyga* had no near ally, but on the colonization of New Caledonia by the French, an extremely curious, bird was found inhabiting most parts of that island, to which it is peculiar. This the natives called the Kagu, and it is the *Rhinochetus jubatus* of ornithology. Its original describers, MM. Jules Verreaux and Des Murs, regarded it first as a heron and then as a crane *(Rev. et Mag. de Zoologie,* i860, pp. 439-441, pl. 21 ; 1862, pp. 142-144); but, on Mr George Bennett sending two live examples to the Zoological Gardens, Mr Bartlett quickly detected in them an affinity to *Eurypyga (Proc. Zool. Soc.,* 1862, pp. 218, 219, pl. xxx.), and in due time anatomical investigation showed him to be right. The kagu, however, would not strike the ordi­nary observer as having much outward resemblance to the sun­bittern, of which it has neither the figure nor posture. It is rather a long-legged bird, about as large as an ordinary fowl, walking quickly

@@@, Cf. IL J. Gadow, *Proc. Zool. Soc.* (1882), pp. 409-421, pls. xxvii., xxviiι.

@@@2 Ibid. (1883), pp. 62-69, pl. xvi.

@@@s According to Μ. J. Brisson *(Ornithologie,* ii. 460), this name was the invention of Réaumur. It seems to have become Anglicized.

@@@4 This figure and description were repeated in the later issue of this work in 1777 (vol. i. pp. 679-781, pl. 1).

@@@5 Possibly he saw in the bird’s variegated plumage a resemblance to the painted snipes, *Rhynchaea.* His specific name shows that he must have known how the Dutch in Surinam called it.