November 25, 1834.

William Yarrell, Esq., in the Chair.

A Letter was read, addressed to the Secretary by Keith E. Abbott, Esq., and dated Trebizond, June 20, 1834. It referred to a collection of skins of *Birds* made by the writer in his immediate neighbourhood, and presented by him to the Society. The number of species contained in the collection is twenty, one only of which was comprised among those previously transmitted by Mr. Keith Abbott, and exhibited to the Society at its Meeting on June 24, 1834. Mr. Abbott states that he proposes to continue the collection of such zoological subjects as he can procure in the neighbourhood of Trebizond, for the purpose of transmitting them to the Society.

The *Bird-skins* presented by Mr. Keith Abbott were exhibited, and Mr. Gould, at the request of the Chairman, brought them severally under the notice of the Meeting, observing on each of them as regarded its geographical distribution. The exhibition was regarded as a continuation of that which took place on June 24, (page 50,) and comprised the following species not then enumerated, making in the whole fifty-three species observed in the vicinity of Trebizond.

Falco Tinnunculus, Linn. Inhabiting Europe generally, and the adjacent continents of Asia and Africa, but not America.

Otus vulgaris, Cuv. Inhabiting Europe generally, and found also in India and Africa.

Sylvia Rubecula, Linn. Mr. Gould has no recollection of having seen this familiar bird before, either from Asia or Africa.

Emberiza Cía, Linn. Inhabiting the southern provinces of Europe and the high lands of India. It does not visit England, nor has it been seen from Africa.

Alauda arvensis, Linn. Inhabiting Europe generally. Mr. Gould has no recollection of having seen it in collections either from India or Africa, but it doubtless inhabits the border lands of the latter continent as well as of Asia.

Corvus Monedula, Linn. This bird is principally confined to Europe: it does not occur in America. A species nearly allied inhabits India.

Picus medius, Linn. A common species in Norway, Sweden, and part of the central portions of Europe; but not hitherto observed in collections from India or Africa.

Ardea Garzetta, Linn. Inhabiting the southern portions of Europe: it is also found in India and Africa, but not in America. It was once common in England.

Scolopax major, Linn. Inhabiting Europe generally, but probably not America. Mr. Gould has not yet seen it from India.

Tringa variabilis. This bird is very generally dispersed, being

common both in America and Europe: Mr. Gould has also seen it from India and Africa. It breeds in England.

Charadrius Pluvialis, Linn. Inhabiting Europe and the adjoining portions of Africa and Asia, but not America.

Charadrius Himantopus, Linn. Inhabiting Europe, particularly the southern parts, and Asia and Africa, but not America; its place in the latter continent being filled by a species nearly allied to it. It occasionally visits England.

Anas Querquedula, Linn. Inhabiting India as well as Europe: common in the Himalayan range.

Anas Fuligula, Linn. Found in all temperate countries of the old continent, but not hitherto in America.

Clangula vulgaris, Flem. Though common in England during the winter, the proper locality of this bird is in the high northern latitudes. Mr. Gould has not previously seen a specimen from so southern a *habitat* as the present.

Mergus Albellus, Linn. Similarly circumstanced with the last, although apparently still more arctic, as it visits England only in severe winters.

Podiceps cristatus. Found in nearly all the temperate regions of the globe.

Mr. Gray exhibited a specimen of a *Reptile* from New South Wales, which he regarded as constituting the type of a new genus nearly related to *Bipes*, Latr. He characterized it under the name of

LIALIS.

Caput elongatum, fronte plano, squamis parvis subimbricatis vestitum: *irides* lineares, verticales: *aures* oblongæ, conspicuæ.

Corpus subcylindricum, attenuatum: squamis dorsalibus ovatis, convexis, lævibus; ventralium seriebus duabus intermediis majoribus.

Pedes duo, postici, obsoleti, acuti, ad basin 2—3-squamati.

Anus subposticus: *squamæ præanales* parvæ; *pori subanales* utrinque quatuor per paria dispositi.

This genus is very nearly allied to *Pygopus*, Merr., but may be readily distinguished from it by the characters above given. In *Pygopus* the head is short, more rounded in front, and covered with regular shields: the pupil is subcircular: the feet are broad, ovate, blunt, and covered with three rows of scales: the vent has five large oblong scales in front of it: and the subanal pores form a continuous series.

LIALIS BURTONIS. *Li. supra pallidè cinerascenti-brunnea, nigro minutissimè punctata; subtùs pallidè cacaotico-brunnea; strigè albà utrinque a labio superiore supra oculos per nucham, alterâque latiore a labio superiore per latera ad caudæ apicem ductis.*

Junior. *Strigis colli lateralibus obsoletis.*

OBS. Epidermide remotâ subalbida est strigis lactescentibus.

Hab. in "Novâ Cambriâ Australi." Dr. Mair.—Muss. Chatham et Brit.

The dotting on the upper surface is produced by two or three black points on each of the scales. The upper streak passes along the keels on each side of the face and terminates on the back of the neck. The lower streak separates the dark colour of the under, from the pale of the upper, surface, and is edged beneath along its whole extent by a narrow brown line; in its anterior portion it is brown above.

The scales are smooth, and marked with four slight lines. The front lower labial plate is rather larger, with one pair of small mental plates and an odd one behind it: there are four pairs of long trigonal arched scales on each side of the lower jaw, of which the anterior is small and the posterior the largest, each with a small linear scale at its outer tip, which is next the small, broad, low labial plates; the hinder ones having two or three series of broad low plates under them. The dorsal scales are margined. The superciliary plates are triangular, and of moderate size. The scales of the front of the muzzle are very small, with two odd ones behind them, and one in the middle between the nostrils. The eyes are circular, and surrounded by a series of small scales. Eyelids none?

Mr. Gray also exhibited a specimen of the *New Holland Ibis* of Dr. Latham, for the purpose of directing the attention of the Meeting to the spatulate form of the feathers of its neck; a form of feather which he believes not to have been previously recorded as occurring in any *Grallatorial Bird*. In this instance they are elongated, lanceolate, and bear some resemblance to straws. The specimen was obtained from the neighbourhood of Macquarrie River.

Mr. Gray subsequently exhibited adult specimens of the *Geoemyda spinosa* and *Emys platynota*, two species of *fresh-water Tortoise* recently described by him from young individuals at the Meetings of the Society on June 24 and August 26 (pages 54 and 99). He pointed out in detail the peculiarities of the adult animals and shells, which he is about to describe in his 'Synopsis of Indian Animals'; and demonstrated on the specimen of the former the existence of those characters on which he had founded the genus *Geoemyda*, and which he had previously had occasion to observe in *Ge. Spengleri* alone,—his knowledge of the animal of *Ge. spinosa* having at the time of his proposing the genus been limited to the figure published by Mr. Bell.

In the adult individual exhibited the *sternum* was concave; and Mr. Gray, in calling particular attention to this point, took occasion to remark on it as evidencing, in an additional character to those already adverted to by him, the affinity of *Geoemyda* to the *Land Tortoises*, that genus and the genus *Cistuda*, Say, being the only genera among the *Emydidæ* that possess the concavity of *sternum* which is common to most of the species of *Testudinidæ*.

A Paper was read "On *Nycteribia*, a genus of wingless *Insects*, by J. O. Westwood, Esq., F.L.S., &c.'

The author commences by remarking on the existence of certain

groups of animals, generally limited in extent, which exhibit in their organization, with reference to the groups to which they naturally belong, such anomalies as have constantly proved a source of perplexity to the systematists who have endeavoured to assign to them their real place in the system of nature. In many instances the anomaly involves the transition from the structure of one group to that of the adjoining ones; such instances constituting the osculant groups of Mr. W. S. MacLeay in his '*Horæ Entomologicæ*'. Of these osculant groups some exist between the great divisions of the animal kingdom; others among the classes of which each of these great divisions is composed; others again between the orders, the families, and the minor subdivisions. The genus *Nycteribia* is thus osculant not between the families or even the orders of a class, but between two of the classes themselves of the *Annulose Sub-kingdom*—the *Arachnida* and the *Haustellata*. It is remarkable, moreover, for being exclusively confined to a parasitic existence on that equally anomalous group, the *Chiroptera* among the *Mammalia*.

Notwithstanding the comparatively unattractive appearance of the insects of this genus, the singular peculiarities of their structure have drawn upon them the attention of Latreille, Hermann, Dr. Leach, M. Léon Dufour, and Mr. Curtis, who have severally contributed much to the general stock of information respecting them. But the minuteness of the objects themselves, their unfitness for accurate examination when dried and shrivelled as specimens usually are in cabinets, their comparative rarity, and other causes, have rendered the descriptions of those distinguished entomologists in some instances unsatisfactory; and it is with the view of fully elucidating the organization of the genus and of adding to its history such facts as he has been enabled to ascertain, that Mr. Westwood offers to the Society his account of *Nycteribia*, to which he adds a Synopsis of the whole of the species that have hitherto been observed, including the characters of several not hitherto described. He enumerates the sources from whence his materials have been derived; and then proceeds to describe in great detail the structure of a new species brought from Dukhun by Col. Sykes,—a species peculiarly adapted for the purpose, both on account of its comparatively large size, $2\frac{1}{2}$ lines in length, and of the fitness of the individuals for minute examination owing to their having been preserved in spirit. Of this species he has examined three individuals, all of which are females in different stages of gestation. From the *abdomen* of the one which was most advanced Mr. Westwood extracted without difficulty a hard organized white mass, nearly as large as the *abdomen* itself, of an oval form, with traces of five articulations on the sides of the body, and having at its broader end three small circular spots placed in a triangle, with two smaller ones seated at a greater distance from them. That this was the young of the *Nycteribia* in its *pupa* state cannot, he conceives, be doubted: and it may consequently be regarded as proved that these insects are pupiparous, as has indeed been conjectured from their evident connexion with the *Hippoboscide*.

The whole of the external organization of Col. Sykes's *Nycteribia*

is described by Mr. Westwood in the greatest detail, and with continual references to those portions of the descriptions published by his predecessors, which are either vague, or incorrect, or in which they are contradictory to each other. The principal points which he has endeavoured to elucidate, in addition to the transformations which these insects undergo, are the distinction of the sexes, and consequently the sexual characters and the different organization of the *abdomen* in the sexes; the structure of the mouth, *antennæ*, and eyes; the separation of the *metasternum* and the *abdomen*; the situation and construction of the spiracles; and the nature of the serrated organs between the base of the anterior and intermediate legs. The sexual distinctions appear especially to have been misunderstood, and the author takes great pains to explain them in each of the species respectively which he has been enabled satisfactorily to examine.

Mr. Westwood concludes his Paper by a Synopsis of the Species of the

Genus NYCTERIBIA.

NYCTERIBIA SYKESII. *Nyct. rufo-picea, thoracis tegumento dorsali abdomineque obscure albicantibus; hoc tuberculis minutissimis nigris undique tecto tuberculis quatuor majoribus in quadrangulo centrali dispositis, segmentis (unico basali excepto) destituto, apiceque pilis rigidis ferrugineis elongatis oblecto; pedibus elongatis subcompressis paullo dilatatis, breviter setosis; femoribus magis ferrugineis, coxis anticis elongatis tibiisque apicem versus attenuatis; pectinibus thoracis elongatis; oculis e tuberculis quatuor compositis.* (♀)

Long. corp. lin. 2½.—Species maxima.

Hab. in Indiâ Orientali.—In Mus. D. Sykes.

NYCTERIBIA HOPEI. *Nyct. abdomine concolore nitido, in medio obsolete 5-articulato, ovato-conico-depresso, segmento ultimo conico-truncato, apice lateraliter setigero subtus stylis duobus conico-elongatis inflexis armato.* (♂)

Long. corp. lin. 2.—Præcedenti valdè affinis, at minor. An illius mas?

Hab. in Indiâ Orientali, apud Bengaliâ.—In Mus. D. Hope.

NYCTERIBIA DUBIA. *Nyct. fusco-castanea, pedibus magis castaneis; coxis anticis elongato-conicis, femoribus tibiisque subcylindricis; thorace subtus irregulariter rugoso; pectinibus thoracis lateralibus elongatis; abdomine ("♀" Latr. ♂?) ovato, 6-annulato, segmento postico conico-elongato posticè attenuato et truncato.*
Long. corp. circiter lin. 2., Latr.

Nycteribia Blainvillii, Latr., in *Nouv. Dict. d'Hist. Nat.*, tom. xxiii. nec Leach.

Hab. in Insulâ Isle de France dictâ. Latr.—India?—In Mus. olim Latreille.

The alleged diversity of sex, the difference of *habitat*, and the nearly cylindrical legs, induce the belief that this species is distinct from the last, with which however it offers a close resemblance both specifically and sexually.

NYCTERIBIA BLAINVILLII, Leach. *Nyct.* "*pedibus longis tenuibus femoribus tibiisque apicem versus gradatim attenuatis*"; *obscurè ochraceo-livida*; *abdomine (apice excepto) fusco, elongato-conico, depresso, segmentis sex apice setigeris, ultimo longiore subrotundato.* (♂)

Long. corp. lin. 1. (1½ secundum Leach.) "*Minor Phthiridio Hermannii.*"—Leach.

Hab. in Insulâ Isle de France dictâ.—In Mus. Brit.

NYCTERIBIA ROYLI. *Nyct. obscurè nigra, pedibus fuscantibus elongatis vix compressis, coxis anticis brevibus; abdomine ovato-conico, depresso, 5-articulato, apice subtruncato, stylis duobus incurvis subtus armato; capite compresso.* (♂)

Long. corp. lin. 1½.

Hab. in Indiâ Orientali.—In Mus. D. Royle.

NYCTERIBIA DUFOURII. *Nyct. pedibus elongatis, coxis abbreviatis; oculis rotundatis sessilibus simplicibus; abdomine ♀ ovali, apice setigero, segmentis destituto, suprâ paribus tribus serierum setarum brevium rigidarum instructo; ♂ ? oblongo, 6-articulato, apice subtus stylis destituto ?*

Long. corp. lin. 1½ ♀. lin. 1. ♂ ?

Nyct. Vespertilionis, Dufour, in Ann. des Sci. Nat., Avril 1831, pl. 13. fig. 4.

Hab. in *Vespertilione murino* Galliæ.

NYCTERIBIA PEDICULARIA, Latr. *Nyct. fusca; corpore suprâ pedibusque flavo-rufescentibus; thorace subtus fusco-rufescente, lined longitudinali medianâ nigrâ; pedibus longis arcuatis, coxis anticis brevibus subcylindricis, femoribus tibiisque valdè compressis fere ellipticis; pectinibus lateralibus thoracis brevibus; abdomine setis rigidis armato.*

Nyct. Vespertilionis, Latr., Gen. Crust., &c., vol. iv. p. 364. pl. 15. fig. 11. Id., in Nouv. Dict. d'Hist. Nat., tom. xxiii.

Latreille's original name is restored to this species, it being considered as distinct from any of the others, with the exception perhaps of Hermann's *Nyct. Vespertilionis*.

NYCTERIBIA VEXATA. *Nyct. pallidè ferruginea; pedibus elongatis, coxis anticis brevibus; abdomine ♂ 8-articulato, testaceo, ovato-conico, apice subrotundato, subtus stylis ad apicem duobus incurvis alteroque intermedio armato.*

Long. corp. lin. 1—1½.—Specimen aliud (♂ ? siccitate contractum ? vel ♀ ??) abdomine ad apicem emarginato à cl. Hermannò descriptum est.

Nyct. Vespertilionis, Herm., Mem. Apt., pl. 5. f. 1.

Hab. in *Vespertilione murino* Europæ.

The insect described by Hermann under the name of *Nyct. Vespertilionis* may be considered, without hesitation, as specifically distinct from our two British species, as well as from *Nyct. Dufourii*, in the structure of the male. It may possibly, however, be identical with *Nyct. pedicularia*.

NYCTERIBIA JENYNSII. *Nyct. pallidè ochraceo-flavescens, setis pectinibusque thoracis et abdominis basi nigris; palpis longè setosis; oculis sessilibus, rotundatis, simplicibus; pedibus elongatis tenuibus, coxis anticis brevioribus, femoribus tibiisque paullo compressis; abdomine ovato, seriebus sex transversis setarum rigidarum (segmenta totidem indicantia) notato, segmento ultimo laminis duabus elongatis incurvis contiguis styloque carnosio intermedio subtùs terminato.* (♂)

Long. corp. lin. $1\frac{1}{2}$.

Hab. in Chinâ.—In. mus. nostr. Amicissimè communicavit Rev. Leonard Jenyns.

NYCTERIBIA LATREILLII, Leach. *Nyct. pallidè ochracea; pedibus perbrevibus, femoribus tibiisque valdè dilatatis setis obscuris elongatis, tarsorum articulo primo reliquis conjunctim vix longiore; thoracis pectore latiore et brevioris; pectinibus thoracis unguibusque nigris; abdomine ♂ 6-articulato, segmento ultimo longiore, conico-truncato, subtùs laminis duabus distantioribus elongatis incurvis et ad ventrem adpressis, styloque intermedio armato; ♀ ovali absque appendiculis, apice inciso, subtùs articulo basali distincto, seriebusque sex transversis setarum rigidarum instructo, segmenta ? indicantibus.*

Long. corp. lin. $\frac{3}{4}$. ($1\frac{1}{2}$ secundum Leach.)

Hab. in *Vespertilione murino* Angliæ.—In Muss. Brit., DD. Stephens, Jenyns et Curtis.

The references of this species to Linnæus and Olfers, given by Dr. Leach, must be considered as dubious. Frisch (vol. ii. pt. 5. pl. 5.) has represented an insect, which, from the shortness of the legs, may possibly be intended for this species. That it is not the species figured by Latreille in the 'Histoire Naturelle' and the 'Genera Crustaceorum,' (with which it is doubtfully considered as synonymous by Dr. Leach,) is evident from the length and slenderness of the legs in the figures contained in those works.

NYCTERIBIA BIARTICULATA. *Nyct. pallidè ochracea, abdomine obscuriore; pedibus elongatis dilatatis longè setosis, setâ unica ad basin tibiæ longissimâ, coxis anticis brevibus; abdomine ♀ quasi 2-articulato, segmento primo suprâ longiùs producto, stylis duobus caudalibus elongatis cylindricis porrectis ad apicem longè setosis; ♂ 6?-articulato subtùs ad apicem stylis duobus incurvis ad ventrem adpressis; thorace subtùs concolore.*

Long. corp. lin. $1\frac{1}{4}$. (2 secundum Leach.)

Phthiridium biarticulatum, Herm., Mem. Apt., pl. 6. f. 1. ♀

Phthiridium Hermannii, Leach, Zool. Misc., vol. iii. pl. 144. ♂. ♀.

Celeripes Vespertilionis, Mont., in Linn. Trans., vol. ix. p. 166.

Nycteribia Vespertilionis, Mont., in Linn. Trans., vol. ix. t. 3. f. 5. ♀.

Hab. in *Rhinolopho Ferro-equino* Angliæ, Germaniæ, Italiæ.—In Muss. Brit. et D. Stephens.

Obs. Species distinctissima, sectionem peculiarem in genere constituens.

Hermann's trivial name for this species has been restored, as well in justice to that author as with the view of obviating the confusion which has arisen from his chief description having been derived from a different species.

Mr. Westwood's Memoir was illustrated by numerous magnified figures of the different species and of the details of their external structure.