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XXIV.—Revision of the British Libellulidæ

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XXIV.—*Revision of the British Libellulidæ.* By Baron EDM. DE SELYS LONGCHAMPS (of Liège), Member of various Academies.

BEING engaged in the preparation of a revision of the Libellulidæ of Europe, intended to serve as a supplement to the monograph which I published in 1840, I have examined with the greatest care the British Libellulæ, taking advantage of the journey which I made in the summer of 1845 in England, Scotland and Ireland. The notice which I now offer is the result of those investigations: it contains principally:—

1. The enumeration of the species which I saw in the various collections.

2. Their synonymy in accordance both with the general revision which I shall soon publish, and with the names which they bear in the principal British works.

3. Their respective geographical distribution in England, Scotland and Ireland, with the citation of the authors or the collectors on whose evidence I have admitted them into the British fauna.

I shall in general pass in silence the times of appearance and the detailed enumeration of the localities where each species was taken: they will be found in the English works cited in the synonymy.

It is not to be wondered at that, the Neuroptera being generally neglected by entomologists, the synonyms given by authors should not always be correct. I have not deemed it indispensable to give a very detailed correction of them: the important object was to record what I have myself *seen*, in these collections, and to determine exactly the species in accordance with my works. Still less do I think it necessary to notice the errors of determination which exist in several collections, unless these determinations have been cited in published works. I beg those gentlemen who granted me admission to their museums with so much kindness, to receive the expression of my gratitude. It is solely to them

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that I am indebted for having been able to throw light upon the synonymy of the British Libellulidæ, by numerous comparisons. I must particularly mention the following gentlemen :—Mr. E. Doubleday, who facilitated my researches in the British Museum, and in the collection of the late Dr. Leach, which is deposited there ;—the Rev. F. W. Hope of London, whose museum is an inexhaustible source of study for all branches of entomology ;—Mr. J. F. Stephens of London ;—Mr. John Curtis of Hayes ; [The collections of these two last gentlemen are classical for British entomology.]—Mr. W. Evans of London ;—Mr. Westwood of London ;—Mr. E. Newman, with whom I visited the typical collection of Linnæus, and that of Sir J. Banks, determined by Fabricius ; both of them deposited in the Linnæan Society of London ;—the Rev. Leonard Jenyns of Swaffham Bulbeck ;—Mr. Babington and Mr. Wollaston of Cambridge ;—Mr. R. Ball, who procured for me admission to the Irish collections at Dublin, and especially that of Miss Ball, his sister ;—Mr. W. Thompson of Belfast, who rendered me the same service in the collections of Messrs. Haliday, Hyndman, &c. ;—Dr. Balfour and Dr. Colquhoun of Glasgow ;—Dr. Greville and Mr. Wilson of Edinburgh ;—Mr. J. Blyth of Glasgow ;—Mr. Wailes and Mr. Hancock of Newcastle.

I had not time to visit the collection of Mr. Dale in Dorsetshire, so rich in British Libellulidæ, but that entomologist has furnished me with very detailed accounts ; and as I have seen in the British Museum typical specimens sent and determined by Mr. Dale, I can supply this omission and cite his observations with precision. I must here bear witness to the perfect acquaintance which Mr. Dale possesses with the family of insects which is now under our consideration.

I hope that I have not committed any error as to the determination of the species in the collections, and have not omitted any species. Doubtless many others will be discovered in making new researches, and some which have only been observed in England exist also in Scotland and Ireland, these two last countries having been little explored for this purpose. This list contains forty-six species ; eight of them *, resting on the capture of only

* I must however remark, that on visiting, from the 15th to the 25th of July, several apparently very favourable localities in Scotland, and that in very fine weather, I was much surprised not to see there, so to speak, any Libellulidæ, except the *Æschna juncea* in small numbers, and some *Libellula scotica*, *Agriion minimum*, *pulchellum*, *cyathigerum* and *elegans*, and moreover not in all these localities, which are—Tarbet (Loch Lomond), Inverary (Loch Fine), Oban, Foyersfall. In the marshes above these celebrated waterfalls, I did not see any Libellulidæ. Is this to be attributed to the composition of the waters, which themselves depend on the geological constitution of the country ? The Ardennes in Belgium, the uncultivated heaths

an isolated specimen, ought to be sought for again before being regarded as positively British,—the more so, as the accounts of the occurrence of several of them do not present satisfactory details: these are—

Libellula vulgata.	Gomphus forcipatus.
Fonscolombii.	Lestes viridis.
Cordulia metallica.	virens.
Gomphus flavipes.	barbara.

[I shall not mention the *Libellula Sparshalii*, Dale MSS., named after the only specimen, which Mr. Sparshall thought he took at Horning, because Mr. Curtis supposes it exotic.] There remain at all events thirty-eight very certain species.

On examining the total list of the forty-six species, I find that forty-four inhabit England, twenty-two Scotland, and twenty-two Ireland. No species is exclusively peculiar to the British Isles; all are found in other parts of Europe.

Mr. W. Thompson of Belfast, in his able Report on the Fauna of Ireland (1843), compares the number of Reptilia which are found in Belgium with those of England, and also with those of Ireland; and he remarks that, in going from east to west, the number successively diminishes, almost in the same proportion between Belgium and England as between England and Ireland. In fact Belgium possesses twenty-two Reptilia, England eleven, and Ireland five. With respect to the Libellulæ, England possesses, it is true, double the number of those of Ireland, but Belgium has only a third more than England; that is to say, fifty-eight species, but in truth *positively* Belgian. All the British Libellulæ are equally found in Belgium, except the *Cordulia Curtisii* and the *Agrion tenellum*, two species of the south-west of France and of Spain, and the *Gomphus flavipes*.

In addition to these, Belgium possesses—

Libellula brunnea, Fonsc. (cærulescens, De Selys, olim.)	Gomphus pulchellus, De Selys (nec Steph.).
Libellula pedomontana, Allioni.	Cordulegaster bidentatus, De Selys.
rubicunda, L.	Æschna affinis, Van der Lind.
pectoralis, Charp.	Lestes fusca, Van der Lind.
caudalis, Charp.	Sophia speciosa, Charp.
Epithea bimaculata, Charp.	Agrion lunulatum, Charp.
Cordulia flavomaculata, Van der Lind.	hastulatum, Charp.
	Lindenii, De Selys.

As the species of Libellulidæ have in general a habitat which extends over many countries, but are often wholly local, it is probable that several of the fifteen Belgian species above mentioned will be found in Great Britain.

of which have the greatest analogy to those of the Highlands, is also very poor in Libellulidæ, and is remarkable for the presence of the *Cordulia arctica*, which has been also found in Scotland and in Scandinavia.

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Tribe 1. LIBELLULINA.

Division 1. LIBELLULOIDES.

Genus 1. *Libellula*, L.

1. *Libellula quadrimaculata*, L., Steph., Curt.; Evans, pl. 17. f. 1.
 Var. *prænubila*, Newm., Steph.; Evans, pl. 17. f. 2.
 England. General.—Mus. Steph., Curt., Dale, Jenyns, Evans.
 Scotland. Mus. Dr. Greville, Blyth.
 Ireland. Mus. Miss Ball, Hyndman, Haliday.
2. *L. depressa*, L., Steph., Curt.; Evans, pl. 16. f. 1—2.
 England. General. Mus. Steph., Curt., Dale, Jenyns, Evans.
 Scotland. Mus. Dr. Greville.
 Ireland. Mus. Miss Ball.
3. *L. fulva*, Müll.
L. conspurcata, Steph., Curt.; Evans, pl. 16. f. 3; De Selys (olim).
L. bimaculata, Steph., Evans (exclus. synonym.).
L. fugax, Harris.
L. quadrifasciata, Donovan.
 England. Local.—Mus. Steph., Curt., Dale, &c.

N.B. The description given by Mr. Stephens relates in part to the true *L. bimaculata* described by Charpentier, a species foreign to England.

4. *Libellula cancellata*, L., Steph., Curt., Donovan.; Evans, pl. 17.
f. 3—pl. 18. f. 1.
England. Local.—Mus. Curt., Steph., Dale, Evans.
5. *L. cærulescens*, Fab., Steph., Curt.; Evans, pl. 18. f. 2, 3.
L. biguttata, Donovan.
L. donovani, Leach.
L. olympia, Fonscol., De Selys (olim).
England. Local.—Mus. Steph., Curt., Dale, Jenyns, &c.
Scotland. Mus. Wilson, Blyth.
Ireland. Mus. Haliday, Hyndman.
6. *L. sanguinea*, Müll.
L. rufostigma, Newm.; Steph. Nomencl. and Ill.; Evans, pl. 19.
f. 3—4 (adultus).
L. basalis, Steph.; Evans, pl. 21. f. 1 (junior).
L. ræselii, Curt., De Selys (olim).
L. angustipennis, Steph. Nomencl. and Ill.; Evans, pl. 20. f. 2;
Curt.
England. Local.—Mus. Steph., Curt., Dale, Evans.
7. *L. flaveola*, L., Steph.; Evans, pl. 21. f. 2.
L. flaveolata, Curt.
England. Local.—Mus. Steph., Curt., Dale, &c.
Scotland. Steph.
8. *L. Fonscolombii*, De Selys.
(Not indicated by English authors.)
England. A female specimen in the collection of Mr. Stephens.
He thinks he took it near London.
- ? 9. *L. vulgata*, L.
L. veronensis, Curtis.
England. A single female specimen taken at Hull (Mus. Dale).
I have not seen it, and as it is difficult to distinguish well the true
vulgata from the *striolata*, I can at this moment enumerate it only
with doubt.
10. *L. striolata*, Charp.
L. vulgata, Steph., Curt., Donovan.; Evans, pl. 20. f. 3; De Selys
(olim) partim (exclusis synonymis).
L. veronensis, Steph. Collect. MSS. (Cited with doubt in my mo-
nograph as the *L. Fonscolombii*.)
England. General.—Mus. Steph., Curt., Dale, Evans, &c.
Scotland. Mus. Greville, Blyth, &c.
Ireland. Mus. Miss Ball, Hyndman.
11. *L. meridionalis*, De Selys, 1841.
L. hybrida, Ramb. 1842. (Not indicated by English authors.)
England. A single female specimen from the environs of London
(Mus. Evans); another in the collection of Mr. Wailes of Newcastle,
but from the south of England.

12. *Libellula scotica*, Leach, *Donov., Steph., Curt.*; Evans, pl. 19. f. 1, 2 (adult).

L. pallidistigma, Steph. *Nomencl. and Ill.* 1835; Evans, pl. 19. f. 1 (junior).

England. Local.—Mus. Steph., Curt., Dale, Jenyns, &c.

Scotland. Very common.—Mus. Greville, &c. Oban, De Selys.

Isle of Arran, Steph.

Ireland, Belfast. Mus. Haliday.

13. *L. dubia*, Van der Lind.

L. rubicunda, Leach Coll.; Curtis, pl. 712; Evans, pl. 21. f. 3; De Selys (partim) (exclusis synonymis).

L. leucorhinus, Charp. (adnotatio).

England. Rare and local.—Mus. Curt., Steph. Dorchester, Mus. Dale.

Genus 2. *Cordulia*, Leach.

- ? 14. *Cordulia metallica*, Van der Lind.; Steph. *Nomencl. and Ill.*; Curt.; Evans (pl. 15. f. 1. more resembles the *ænea* ♀).

L. ænea, Harris?

England. I have not seen any specimen whose capture in England was certain. It is very doubtful if it is found there.

15. *C. arctica*, Zetterstedt, *Faun. Lapp.*

C. alpestris, Evans (without description or figure); it is not the

C. alpestris, De Selys.

C. subalpina, De Selys (*Bullet. Acad. Bruxelles*).

Scotland. Found by Mr. Weaver, in July 1844, in the Black Forest of Loch Rannoch in Perthshire (Mus. Dale). This species is found in Lapland, Norway, and the Ardennes of Belgium. [I have not seen the specimen taken in Scotland.]

16. *C. ænea*, Linn. (pars). *Donov., Steph., Curt.*; Evans, pl. 14. f. 3.

England. Local.—Mus. Steph., Curt., Evans, Dale, &c.

Ireland? Towards the northern lakes (Haliday). I have not seen the specimens. There is no doubt that a *Cordulia* is found there, but the species has not been determined with certainty.

17. *C. Curtisii*, Dale; Curt. pl. 616; Steph. *Ill.*; Evans, pl. 15. f. 2, 3.

C. compressa, Steph. *Catal.*

England. Local in the south. New Forest, Dorset.—Mus. Dale, Steph., Curt., &c.

Division 2. *ÆSCHNOIDÆ*.

Genus 3. *Gomphus*, Leach.

18. *Gomphus vulgatissimus*, L., Steph. *Catal.*, Curt.; Evans, pl. 14. f. 1.

G. forcipatus, *Donov., Steph. Ill., De Selys (olim).*

England. Local.—Mus. Steph., Curt., Dale, Jenyns, Evans.

Ireland. Mus. Miss Ball.

19. *Gomphus flavipes*, Charp.; Steph. Ill. pl. 30. f. 1; Curt.; Evans, pl. 14. f. 2 (♂).

G. pulchellus, Steph. Catal. (nec Selys).

England. A single male taken at Hastings on the 5th of August 1818 (Mus. Stephens). N.B. I erroneously considered the *pulchellus* of Mr. Stephens as identical with another species of Europe which I have described under the same name. This last alone must retain the name of *G. pulchellus*, Selys.

20. *G. forcipatus*, L.

(Not described by English authors.)

G. unguiculatus, Van der Lind., De Selys (olim).

Æschna hamata, Charp.

England. A single female in the collection of Mr. Stephens, who remembers to have taken it in England. [N.B. The extremity of the abdomen is figured by Mr. Evans by the side of the *flavipes* as the female.]

Genus 4. *Cordulegaster*, Leach.

21. *Cordulegaster annulatus*, Latr., Steph., Curt.; Evans, pl. 13. f. 2.

Æ. Boltoni, Donov.

England. Local: rare. New Forest, York, &c.—Mus. Steph., Dale, &c.

Scotland. Local. Loch Lomond, Loch Katrine.—Mus. Dr. Greville, Blyth, &c.

Ireland. Northern Lakes, Haliday.

Genus 5. *Æschna*, Fab.

22. *Æschna pratensis*, Müll.

Æ. vernalis, Van der Lind., Steph.; Evans, pl. 13. f. 1; De Selys (olim).

Æ. teretiuscula, Leach, Curt.

L. aspis, Harris.

England. Generally.—Mus. Steph., Curt., Dale, &c.

Scotland. Mus. Dr. Greville.

Ireland. Mus. Miss Ball.

23. *Æ. mixta*, Latr.

Æ. affinis, Steph.; Evans, pl. 12. f. 2 (exclus. syn.).

N.B. The description given by Mr. Stephens in 1835 relates in part to the true *affinis*, Van der Lind.

Æ. anglicana, Leach MSS.

L. coluberculus? Harris.

England. Local.—Mus. Steph., Curt., Dale, Evans.

Scotland. In the south.

N.B. Perhaps the *Æ. affinis*, Van der Lind., occurs in England: all that I can say is that I have not seen it, and that the types of the species in Mr. Stephens's collection belong to the *mixta*.

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24. *Æschna juncea*, L., Steph., Curt. ; Evans, pl. 11. f. 2 ♂.
Æ. mixta, Steph. ; Evans, pl. 12. f. 1 ♀ ? (exclisus synonymis).
Æ. picta, Charp.
 England. Local, particularly in the north.—Mus. Steph., Dale, Jenyns, &c.
 Scotland. General.—Mus. Greville, Wilson, Blyth. Inverness, Thompson. Oban, Inverary. Foyer's Fall, De Selys.
 Ireland. General.—Mus. Miss Ball, Haliday, Hyndman.
25. *Æ. cyanea*, Müll.
Æ. maculatissima, Latr., Steph. ; Evans, pl. 11. f. 1 ; De Selys (olim).
Æ. varia, Shaw, Curt.
Æ. viatica, Leach.
Æ. grandis, Donov.
 England. General.—Mus. Steph., Curt., Dale, Jenyns, Evans, &c.
 Scotland. Mus. Wilson.
26. *Æ. grandis*, L., Steph., Curt. ; Evans, pl. 10. f. 2.
 England. General.—Mus. Curt., Steph., Dale, Evans, &c.
 Scotland. Mus. Greville.
 Ireland. Mus. Miss Ball, Hyndman, Haliday.
27. *Æ. rufescens*, Van der Lind. ; Steph. Ill. ; Evans, pl. 10. f. 1.
Æ. Dalei, Steph. Catal., Curt.
 England. Local, and only in the south. Yarmouth, Mr. Newman.—Mus. Dale, Steph., &c.

Genus 6. *Anax*, Leach.

28. *Anax formosus*, Van der Lind. ; Steph. Ill. ; Evans, pl. 9. f. 2.
A. imperator, Leach, Steph. Catal., Curt.
 England. Local in the south. New Forest, Cambridge.—Mus. Steph., Curt., Dale, Jenyns, &c.

Tribe 2. AGRIONINA.

Division 1. CALOPTERYGOIDES.

Genus 7. *Calopteryx*, Leach.

29. *Calopteryx virgo*, L. (pars) ; Steph. Ill. (partim), var. β, γ, ε ; Curtis.
C. ludoviciana, Steph. ; Evans (partim), pl. 7. f. 3 ♂, semi-adult —that given as the female pl. 8. f. 1. belongs to the *splendeo* of intermediate age (exclisus synon.).
C. xanthostoma, Steph. Ill. (male, semi-adult).
C. anceps, Steph. ; Evans, pl. 9. f. 1 (junior = *Cal. vesta*, Charp.).
C. hæmorrhoidalis, Evans, pl. 8. f. 2, 3 (adult).
 England. Local.—Mus. Steph., Curt., Dale, Evans, &c.
 Scotland. Mus. Wilson, Blyth.
 Ireland. Mus. Miss Ball, Hyndman, Haliday. Belfast, De Selys.

30. *Calopteryx splendeo*, Harris.
C. Ludoviciana, Leach, Curt., De Selys (olim).
C. virgo (partim), Steph. Ill., var. α , δ ; Evans, pl. 7. f. 1, 2.
 England. General.—Mus. Steph., Curt., Dale, Jenyns, Evans, &c.
 Scotland. Mus. Wilson.
 Ireland. Mus. Miss Ball, Haliday, Hyndman.

Division 2. AGRIONOIDEÆ.

Genus 8. *Lestes*, Leach.

- ? 31. *Lestes viridis*, Van der Lind.; Evans, pl. 6. f. 3? (exclus. syn.).
 England? A single specimen in the collection of Mr. Evans.
32. *L. nympha*, Kirby?, De Selys!, Evans?, Curtis.
L. sponsa, Steph. (partim: junior), Leach Coll. ♂ ad.
 England. Local.—Mus. Evans, Curt., Leach, Steph.
 Ireland? Mus. Dublin.
33. *L. sponsa*, Haussemann, Steph. Collect. (partim).
L. autumnalis, Leach (junior), Steph. Catal. and Collect. (♂ adult),
 Curtis.
L. nympha, Leach Coll. (junior); Steph. Ill.; Evans Collect.
 (adult).
L. viridis? Curtis (junior).
 England. Local, but in several counties.—Mus. Steph., Curt.,
 Dale, Leach, &c.
 Scotland. Mus. Greville, Blyth.
 Ireland. Mus. Haliday.
- ? 34. *L. virens*, Charp.
L. viridis (partim), Steph. 1835 } exclusis synonymis.
L. sponsa (partim), Steph. Catal. }
 England. New Forest. [A single specimen in the collection of
 Mr. Stephens, another in the Mus. Leach.]
- ? 35. *L. barbara*, Fab.
 (Not described by English authors.)
 Ireland? A male in the Dublin Museum under the name of
nympha with a female of the *sponsa*.

Genus 9. *Platynemis*, Charp.

36. *Platynemis platypoda*, Van der Lind., Steph. 1835, Curt.;
 Evans, pl. 6. f. 1, 2 (partim).
Agrion corea, Leach (partim).
 England. Local.—Mus. Steph., Curt., Dale, &c.
37. *P. pennipes*, Pallas.
Agrion corea (partim), Leach Coll., Steph. Catal.
A. albicans, Leach MSS.
A. platypoda, var. *albicans*, Steph. Ill.
Libellula albidella, Devillers.
Platynemis platypoda var., De Selys.

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England. Local.—Mus. Steph., Curt., Dale, &c.

Scotland. I think I am sure of having seen it on wing at Inverary.

Genus 10. *Agrion*, Fab.

38. *Agrion najas*, Haussemann.

A. chloridion, Charp., Curt.; Steph. Ill. (partim : the male).

A. analis, Van der Lind.

England. Local in the south. Whittlesea Mere, Birmingham.—Mus. Curtis, Dale.

39. *A. minium*, Harris, Charp., Steph. *Pyrrhosoma id.*, Evans, pl. 5. f. 3, 4.

A. sanguineum, Van der Lind., Curt., De Selys (olim).

A. fulvipes, Steph. *Erythromma id.*, Evans, pl. 5. f. 5 (young male).

A. lincolniense, Steph. Catal. and Ill. (partim : the young female).

Erythromma chloridion, Evans, pl. 5. f. 6 (young female).

Libellula puella, Barbut.

England. General.—Mus. Steph., Curt., Dale, Evans, &c.

Scotland. Mus. Greville, Blyth. Oban, De Selys.

Ireland. Mus. Miss Ball, Hyndman, Haliday. Belfast, De Selys.

40. *A. tenellum*, Devillers.

A. rufipes, Steph. Catal.

A. rubellum, Van der Lind.; Steph. Ill. pl. 29. f. 4 (female with bronzed back); Curt.; Evans, pl. 3. f. 1; De Selys (olim).

England. Local in the south.—Ely, Mus. Jenyns. New Forest, Mus. Steph., Evans. Epping, Dorset, Mus. Dale, Curtis.

41. *A. pumilio*, Charp.; Evans, pl. 5. f. 7.

A. rubellum (partim), Curtis, pl. . . . (*varietas aurantiaca*) exclus. synonym.

A. Xanthopterum, Steph., Evans (*varietas aurantiaca*), but pl. 3. f. 2. represents apparently the young state of *A. minium*.

England. Local in the south.—Cambridge, Mus. Jenyns. Dorset, Mus. Dale, Curtis, Steph.

Ireland. Belfast, Mus. Haliday.

42. *A. elegans*, Van der Lind.; Steph. Ill.; Curt.; Evans, pl. 3. f. 3, 4.

A. zonatum, Steph. Catal.

A. ezonatum, Steph.; Evans, pl. 3. f. 5 (female).

A. rufescens, Leach, Steph., Evans (partim), *female variety*.

A. rubens, Evans, pl. 3. f. 6 (*female variety*).

A. tuberculatum, Charp.

A. pupilla, Haussem., De Selys (olim).

England. General.—Mus. Steph., Curt., Dale, Evans, &c.

Scotland. Mus. Greville, Blyth. Oban, De Selys.

Ireland. Mus. Miss Ball, Hyndman. Belfast, De Selys.

43. *Agrion pulchellum*, Van der Lind.
A. puella, Steph. ; Evans, pl. 3. f. 7, 8 (not good).
A. lunulatum, Evans, pl. 4. f. 3, 4 (exclus. syn.).
A. hastulatum, Evans, pl. 4. f. 5, 6, not good (exclus. synon.).
A. cyathigerum, Evans, pl. 4. f. 7, 8 (exclus. synon.).
A. rufescens, Evans (partim), pl. 5. f. 2, not good (excl. syn.).
A. interruptum, Charp.
 England. General.—Mus. Steph., Evans, Dale, &c.
 Scotland. Mus. Blyth.
 Ireland. Mus. Hyndman, Haliday. Belfast, De Selys.
44. *A. puella*, L. (pars), Van der Lind.
A. furcatum, Charp., Curt. ; Steph. Ill. ; Evans, pl. 4. f. 1, 2.
A. annulare, Steph. Ill. (female) ; Evans, pl. 5. f. 1 (not good) (exclus. syn.).
A. rufescens, Leach (partim : young male), Curtis.
 England. Local, London.—Mus. Steph., Evans, Curtis, Dale.
 Scotland. Mus. Greville, Blyth.
 Ireland. Mus. Miss Ball, Hyndman, Haliday.
45. *A. mercuriale*, Charp.
 (Not described by English authors.)
 England. In the south.—Mus. Dale, Curtis.
46. *A. cyathigerum*, Charp.
A. annulare, Leach, Steph. Catal. (without any description).
A. hastulatum, Steph. Nomencl. and Ill. (exclus. syn.).
A. brunnea, Evans, pl. 4. f. 8 (junior).
A. zonatum (partim), Steph. Ill.
A. Charpentieri, De Selys, 1840.
 England. Local.—Mus. Steph., Dale, Curt., Evans, &c.
 Scotland, Mus. Greville. Oban, De Selys.
 Ireland. Mus. Miss Ball, Haliday. Belfast, De Selys.
 To this species should probably be referred as a variety, the
Agrion scoticum, Dale MSS., collected in Scotland.

XXV.—On the Arrangement of the Hollow-horned Ruminants
 (Bovidæ). By J. E. GRAY, F.R.S.

THE systematic arrangement of these animals has been one of the most difficult subjects for the student of mammalia.

Linnaeus (Syst. Nat. i. 27), in his last edition of the 'Systema Naturæ,' divides them into three genera according to the direction of the horn, which he describes as erect in *Capra*, reclinate in *Ovis*, and porrect in *Bos*, and separates these from *Cervus* because they have tubular, while that genus has solid branched and deciduous horns.

Gmelin in his edition adds to these the genus *Antilope* which had been established by Pallas, and characterizes that