

along the fold; the sexual pencil of long hairs pale buff tipped with grey.

Expanse 32 mm.

Hab. Makala-Beni, Congo Free State, July 1906.

In the Powell-Cotton collection.

LXII.—*A Revision of the British and Irish Fishes of the Genus Coregonus.* By C. TATE REGAN, M.A.

FOUR species of *Coregonus* have usually been recognized as pertaining to the British fauna, viz.: *C. oxyrhynchus*, Linn., the migratory Houting, which is common on the coasts and in the rivers of continental Europe from Scandinavia to Holland, and is occasionally captured in our southern and eastern counties; *C. clupeioides*, Lacep., the Powan of Loch Lomond, Schelly of Ullswater and Haweswater, and Gwyniad of Bala Lake; *C. pollan*, Thomps., the Pollan of Ireland; and *C. vandesius*, Richards., the Vendace of Lochmaben.

Two years ago I described the Vendace of Derwentwater and Bassenthwaite as a new species, *C. gracilior*, differing from the Lochmaben Vendace in the more elongate body and more slender caudal peduncle, smaller head, shorter paired and lower unpaired fins, and in usually having a ray more in the dorsal fin. My description was based on five specimens; eight more are now in the British Museum collection, and agree well enough with the types, but the differences from *C. vandesius* are so slight that it may be best to recognize *C. gracilior* as a subspecies only.

A fine series of the Pollan of Lough Erne show that, as observed by Yarrell, this fish has usually a deeper body than the Lough Neagh Pollan; also, as a rule, there is a scale more between the lateral line and the base of the pelvic fin. These and other slight differences are here recognized by describing the Lough Erne fish as a new subspecies of *C. pollan* under the name *C. altior*. The Pollan of the lakes of the Shannon system has already received the name *C. elegans* from Thompson; it is here regarded as a second subspecies, differing from the typical *C. pollan* in the shorter maxillary and also in having the scales usually more numerous, especially when counted in a transverse series or round the caudal peduncle.

I have examined two spirit-specimens of the Loch Lomond

Powan (*C. clupeoides*, Lacep.), and have compared with them a good series of the Schelly of Ullswater and Haweswater, which is very similar, but differs at least in having more scales round the caudal peduncle (22 to 24 instead of 20 or 21), whilst the head and interorbital region are somewhat broader; the presence of small blackish spots on the sides, which are very variable, sometimes extending all over the head and body and on to the vertical fins, suggest the new subspecific name *stigmaticus* for this form. The Gwyniad of Bala Lake (*C. pennantii*, Val.) is a better defined race; when compared with Powan or Schelly of the same size the eye is seen to be rather larger, and consequently the maxillary extends a little beyond instead of to the vertical from the anterior edge of the eye, except in one very large specimen (400 mm.); the scales in a transverse series are usually more numerous, the anal fin usually longer, and the interorbital region somewhat narrower than in the Powan or the Schelly.

Synopsis of the Species and Subspecies.

I. Lower jaw projecting.

Depth of body $3\frac{2}{3}$ to $4\frac{1}{4}$ in the length; caudal peduncle 1 to $1\frac{1}{2}$ as long as deep. Dorsal fin with 7 to 9 branched rays, the longest from $\frac{3}{4}$ to as long as the head; pectoral extending $\frac{3}{5}$ to $\frac{3}{4}$ of the distance from its base to that of the pelvics 1. *vandesius*.

Depth of body 4 to 5 in the length; caudal peduncle $1\frac{1}{2}$ to 2 as long as deep. Dorsal fin with 8 to 10 branched rays, the longest $\frac{2}{3}$ to $\frac{4}{5}$ the length of head; pectoral extending $\frac{1}{2}$ to nearly $\frac{2}{3}$ of the distance from its base to that of the pelvics. 1 a. *gracilior*.

II. Jaws equal anteriorly.

Depth of body $3\frac{3}{4}$ to $4\frac{1}{2}$ in the length; maxillary extending to below anterior $\frac{1}{3}$ of eye or beyond, its length $\frac{2}{7}$ to $\frac{1}{3}$ of the length of head; $7\frac{1}{2}$ to 9 scales between lateral line and base of pelvic fin, 19 to 22 round the caudal peduncle 2. *pollan*.

Depth of body $3\frac{1}{3}$ to 4 in the length; maxillary extending to below anterior $\frac{1}{4}$ or anterior $\frac{1}{3}$ of eye, its length from a little more than $\frac{1}{4}$ to a little less than $\frac{1}{3}$ of the length of head; $8\frac{1}{2}$ to 10 scales between lateral line and base of pelvic fin, 21 to 24 round the caudal peduncle 2 a. *altior*.

Depth of body $3\frac{3}{4}$ to $4\frac{1}{2}$ in the length; maxillary extending to below anterior $\frac{1}{4}$ of eye, its length $\frac{1}{4}$ to $\frac{2}{7}$ the length of head; 8 to 10 scales between lateral line and base of pelvic fin, 22 to 26 round the caudal peduncle. 2 b. *elegans*.

III. Lower jaw included within the upper.

A. Snout vertically truncated.

- Anal fin with 9 to 11 branched rays; $7\frac{1}{2}$ to $8\frac{1}{2}$ scales between lateral line and base of pelvic fin, 20 or 21 round the caudal peduncle; interorbital width $3\frac{1}{3}$ to $3\frac{2}{5}$ in the length of head 3. *clupeoides*.
- Anal fin with 10 to 12 branched rays; 7 to $8\frac{1}{2}$ scales between lateral line and base of pelvic fin, 22 to 24 round the caudal peduncle; interorbital width 3 to $3\frac{1}{3}$ in the length of head 3 a. *stigmaticus*.
- Anal fin with 11 to 13 branched rays; 8 to 10 (usually 9) scales between lateral line and base of pelvic fin, 22 to 24 round the caudal peduncle; interorbital width $3\frac{1}{3}$ to $3\frac{2}{3}$ in the length of head 3 b. *pennantii*.
- B. Snout produced, conical 4. *oxyrhynchus*.

1. *Coregonus vandesius*, Richards.

THE VENDACE.

Coregonus vandesius, Günth. Cat. Fish. vi. p. 194 (1866); Day, Fish. Britain, ii. p. 128, pl. cxxiii. fig. 1 (1884); Regan, Ann. & Mag. Nat. Hist. (7) xvii. 1906, p. 180.

Depth of body $3\frac{2}{3}$ to $4\frac{1}{4}$ in the length, length of head $4\frac{1}{3}$ to $4\frac{2}{3}$. Snout shorter than eye, the diameter of which is $3\frac{1}{5}$ to $3\frac{3}{4}$ in the length of head; interorbital width $3\frac{1}{2}$ to 4 in the length of head. Lower jaw projecting; maxillary extending to below anterior $\frac{1}{4}$ of eye, its length about $\frac{1}{3}$ the length of head. 26 to 30 gill-rakers on the lower part of the anterior arch. 63 to 72 scales in a longitudinal series, $7\frac{1}{2}$ to 9 in a transverse series from origin of dorsal fin to lateral line, 6 or 7 between lateral line and base of pelvic fin, 20 to 22 round the caudal peduncle. Dorsal with 7 to 9 branched rays; origin nearly equidistant from end of snout and base of caudal fin; longest ray from $\frac{3}{4}$ to as long as the head. Anal with 9 to 12 branched rays. Pectoral extending $\frac{3}{5}$ to $\frac{3}{4}$ of the distance from its base to the pelvics, which are inserted below or a little behind the origin of the dorsal. Caudal peduncle 1 to $1\frac{1}{2}$ as long as deep, its least depth $\frac{2}{3}$ or a little more than $\frac{2}{5}$ the length of head. Silvery or golden, back greenish blue; fins pale or dusky.

Castle Loch and Mill Loch, Lochmaben, Dumfriesshire.

Seventeen examples, measuring up to 195 mm. in total length; only two of these have 9 branched rays in the dorsal fin.

Subsp. *a.* *Coregonus gracilior*.

THE DERWENTWATER VENDACE.

Coregonus gracilior, Regan, Ann. & Mag. Nat. Hist. (7) xvii. 1906, p. 181, pl. vii.

Depth of body 4 to 5 in the length, length of head $4\frac{1}{2}$ to 5. Snout nearly as long as or shorter than eye, the diameter of which is $3\frac{1}{2}$ to 4 in the length of head and nearly equal to the interorbital width. Lower jaw projecting; maxillary extending to below the anterior $\frac{1}{4}$ of eye, its length about $\frac{1}{3}$ the length of head. 25 to 29 gill-rakers on the lower part of the anterior arch. 60 to 72 scales in a longitudinal series, 7 or 8 in a transverse series from origin of dorsal fin to lateral line, 6 or 7 between lateral line and base of pelvic fin, 17 to 21 round the caudal peduncle. Dorsal with 8 to 10 branched rays; origin equidistant from end of snout and base of caudal or a little nearer the former; longest ray $\frac{2}{3}$ to $\frac{4}{5}$ the length of head. Anal with 9 to 11 branched rays. Pectoral extending from $\frac{1}{2}$ to nearly $\frac{2}{3}$ of the distance from its base to the pelvics, which are inserted below or a little behind the origin of the dorsal. Caudal peduncle $1\frac{1}{2}$ to 2 as long as deep, its least depth $\frac{1}{3}$ to $\frac{2}{5}$ the length of head. Silvery, back bluish; fins pale.

Derwentwater and Bassenthwaite Lakes, Cumberland.

Thirteen specimens, measuring up to 190 mm. in total length; two of these have been presented by Mr. S. Venour, four are in the Keswick Museum, and the remainder have been received from Mr. H. A. Beadle. Two have 10 branched rays in the dorsal fin, eight 9, and three 8.

2. *Coregonus pollan*.

THE POLLAN.

Coregonus pollan, Thompson, Proc. Zool. Soc. 1835, p. 77; Günth. Cat. Fish. vi. p. 194 (1866); Day, Fish. Britain, ii. p. 129, pl. cxxiii. fig. 2 (1884).

Depth of body $3\frac{3}{4}$ to $4\frac{1}{2}$ in the length, length of head $4\frac{1}{2}$ to 5. Snout as long as or a little shorter than eye, the diameter of which is 4 to $4\frac{2}{3}$ in the length of head; interorbital width $3\frac{1}{4}$ to $3\frac{4}{5}$ in the length of head. Jaws equal anteriorly; maxillary extending to below anterior $\frac{1}{3}$ of eye or beyond, its length $\frac{2}{7}$ to $\frac{1}{3}$ the length of head. 22 to 26 gill-rakers on the lower part of anterior arch. 74 to 86 scales in a longitudinal series, 8 to 10 in a transverse series from origin of dorsal fin to lateral line, $7\frac{1}{2}$ to 9 between lateral line and base

of pelvic fin, 19 to 22 round the caudal peduncle. Dorsal fin with 9 to 11 branched rays, its origin nearer to end of snout than to base of caudal fin; longest ray about $\frac{2}{3}$ the length of head. Anal with 8 to 11 branched rays. Pectoral extending about $\frac{1}{2}$ the distance from its base to that of the pelvics, which are inserted below or a little in advance of the middle of the dorsal. Caudal peduncle $1\frac{1}{2}$ to $2\frac{1}{4}$ as long as deep, its least depth from less than $\frac{1}{3}$ to nearly $\frac{2}{3}$ the length of head. Silvery, back darker; dorsal and caudal blackish; pelvics and anal usually blackish, except at the base; pectoral usually blackish at the tip.

Lough Neagh, Ulster, Ireland.

Thirty-five examples, 180 to 260 mm. in total length.

Dr. Scharff has kindly sent me on loan a specimen taken in the Estuary of the Foyle, which had no doubt gone down the Bann from Lough Neagh, perhaps during a flood.

Subsp. *a. Coregonus altior*, subsp. n.

THE LOUGH ERNE POLLAN.

Depth of body $3\frac{1}{3}$ to 4 in the length, length of head $4\frac{2}{3}$ to 5. Snout as long as or longer than eye, the diameter of which is $4\frac{1}{2}$ to $5\frac{2}{3}$ in the length of head; interorbital width 3 to $3\frac{1}{2}$ in the length of head. Jaws equal anteriorly; maxillary extending to below anterior $\frac{1}{4}$ or anterior $\frac{1}{3}$ of eye, its length from a little more than $\frac{1}{4}$ to a little less than $\frac{1}{3}$ the length of head. 24 to 26 gill-rakers on the lower part of the anterior arch. 74 to 88 scales in a longitudinal series, 9 or 10 in a transverse series from origin of dorsal fin to lateral line, $8\frac{1}{2}$ to 10 between lateral line and base of pelvic fin, 21 to 24 round the caudal peduncle. Dorsal with 9 or 10 branched rays, its origin usually nearer to end of snout than to base of caudal; longest ray about $\frac{2}{3}$ the length of head. Anal with 8 to 10 branched rays. Pectoral extending about $\frac{1}{2}$ of the distance from its base to that of the pelvics, which are inserted below the middle of the dorsal. Caudal peduncle $1\frac{1}{4}$ to $1\frac{2}{3}$ as long as deep, its least depth from a little more than $\frac{1}{3}$ to a little less than $\frac{1}{2}$ the length of head. Coloration as in *C. pollan*.

Lough Erne, Fermanagh, Ireland.

Fourteen spirit-specimens, 230 to 330 mm. in total length, presented during the last three years by Major H. Trevelyan, and two skins from Thompson's collection, received on loan from the Belfast Museum.

Of these sixteen examples thirteen have 9 scales between the lateral line and the base of the pelvic fin.

Although not so abundant as the Pollan in Lough Neagh, this form is fairly plentiful, and I am informed by Major Trevelyan that it has been netted for the market for some years, fetching 10*d.* per lb. in England and 8*d.* per lb. in Belfast.

Subsp. *b.* *Coregonus elegans*.

THE SHANNON POLLAN.

Coregonus clupeioides (non Lacep.), Thompson, Ann. & Mag. Nat. Hist. ii. 1839, pp. 266 & 421, pl. xvi. fig. 4.

Coregonus elegans, Thompson, *t. c.* p. 422.

Depth of body $3\frac{3}{4}$ to $4\frac{1}{2}$ in the length, length of head $4\frac{1}{2}$ to 5. Snout as long as or longer than eye, the diameter of which is $4\frac{1}{2}$ to 6 in the length of head; interorbital width 3 to $3\frac{1}{2}$ in the length of head. Jaws equal anteriorly; maxillary extending to below anterior $\frac{1}{4}$ of eye, its length $\frac{1}{4}$ to $\frac{2}{7}$ the length of head. 24 to 28 gill-rakers on the lower part of the anterior arch. 78 to 92 scales in a longitudinal series, 9 to 11 in a transverse series from origin of dorsal fin to lateral line, 8 to 10 between lateral line and base of pelvic fin, 22 to 26 round the caudal peduncle. Dorsal with 10 or 11 branched rays, its origin nearer to end of snout than to base of caudal fin; longest ray about $\frac{2}{3}$ the length of head. Anal with 8 to 10 branched rays. Pectoral extending $\frac{1}{2}$ or a little less than $\frac{1}{2}$ of the distance from its base to that of the pelvics, which are inserted below the middle of the dorsal. Caudal peduncle $1\frac{1}{4}$ to $1\frac{2}{3}$ as long as deep, its least depth from a little more than $\frac{1}{3}$ to a little less than $\frac{1}{2}$ the length of head. Coloration as in *C. pollan*.

Lakes of the Shannon System, Ireland.

Eleven specimens from Loughs Ree and Derg, 210 to 360 mm. in total length—one a dried skin, the only one of Thompson's examples of this form which has been preserved, lent by the Belfast Museum; one received on loan from the Dublin Museum; the others recently acquired from Mr. Frank Browne (five), Mr. E. W. L. Holt (presented two), and Harrod's Ltd. (presented two).

Of the eleven examples, seven have 10 scales between the lateral line and the base of the pelvic fin, three have 9, and one 8.

This fish is now scarce, but Mr. E. W. L. Holt writes me that it was plentiful in Lough Ree previous to the drainage of the Shannon in 1845-6.

A specimen said, on rather doubtful authority, to have come from Lough Corrib is in every way similar to those from the Shannon.

According to some of my correspondents, Pollan are found in the Lakes of Killarney, but they have not been able to send me any, and it is possible that Shad have been mistaken for them. Mr. E. W. L. Holt writes me that he tried the lake with suitable nets, but got no Pollan, and he does not think there are any there. Day (Fish. Britain, ii. p. 129) says that in 1852 a Mr. Ffennell exhibited specimens of Pollan from Lough Neagh and from Killarney to the Dublin Natural History Society. I am indebted to Mr. A. R. Nichols for the original report of this exhibition, which appeared in 'Saunders's News-Letters,' Tuesday, June 15, 1852, and which reads as follows:—"The usual monthly meeting was held on Thursday [June 10th];—Mr. Ffennell produced specimens of the Pollan taken in November, 1851, in Lough Neagh and some taken in Killarney the 8th May last and observed on the difficulty of touching them without removing the scales. He directed the attention of the meeting to the difference in shape of the head and gill cover of the specimens from the two localities."

3. *Coregonus clupeoides*.

THE POWAN.

Coregonus clupeoides, Lacep. Hist. Nat. Poiss. v. p. 698 (1803).

Coregonus cepedei, Parnell, Ann. & Mag. Nat. Hist. i. 1838, p. 162, fig.

Coregonus microcephalus, Parnell, t. c. p. 163, fig.

Coregonus clupeoides (part.), Günth. Cat. Fish. vi. p. 188 (1866); Day, Fish. Britain, ii. p. 127 (1884).

Depth of body $4\frac{1}{3}$ to $4\frac{1}{2}$ in the length, length of head $4\frac{1}{2}$ to $4\frac{2}{3}$. Snout as long as or a little longer than eye, the diameter of which is $4\frac{1}{3}$ to $4\frac{1}{2}$ in the length of head; inter-orbital width $3\frac{1}{3}$ to $3\frac{2}{3}$ in the length of head. Snout vertically truncated, with the lower jaw included within the upper; maxillary extending to the vertical from the anterior edge of eye, its length $\frac{1}{4}$ or a little more than $\frac{1}{4}$ the length of head. 20 or 21 gill-rakers on the lower part of the anterior arch. 76 to 84 scales in a longitudinal series, 8 or 9 in a transverse series from origin of dorsal fin to lateral line, $7\frac{1}{2}$ to $8\frac{1}{2}$ between lateral line and base of pelvic fin, 20 or 21 round the caudal peduncle. Dorsal fin with 9 to 11 branched rays; origin nearer to end of snout than to base of caudal fin; longest ray $\frac{4}{5}$ to $\frac{7}{8}$ the length of head. Anal with 9 to 11 branched rays. Pectoral $\frac{4}{5}$ to $\frac{7}{8}$ the length of head, ex-

tending from a little more than $\frac{1}{2}$ to $\frac{2}{3}$ of the distance from its base to the pelvics, which are inserted below or in advance of the middle of dorsal. Caudal peduncle $1\frac{3}{5}$ to $1\frac{3}{4}$ as long as deep, its least depth $\frac{1}{3}$ or a little more than $\frac{1}{3}$ the length of head. Silvery, back darker; fins blackish.

Loch Lomond, Scotland.

Two spirit-specimens, 280 and 300 mm. in total length, recently presented by Mr. W. L. Calderwood, and sixteen skins from Dr. Parnell's collection.

Of these eighteen examples, four have 9 branched rays in the anal fin, seven 10, and seven 11.

Subsp. *a.* *Coregonus stigmaticus*, subsp. n.

THE SCHELLY.

Coregonus clupeoides (part.), Günth. Cat. Fish. vi. p. 188, fig. (1866); Day, Fish. Britain, ii. p. 127 (1884).

Depth of body $3\frac{1}{3}$ to $4\frac{1}{2}$ in the length, length of head $4\frac{1}{4}$ to $4\frac{3}{4}$. Snout as long as or a little longer than eye, the diameter of which is $4\frac{1}{4}$ to $4\frac{3}{4}$ in the length of head; inter-orbital width 3 to $3\frac{1}{3}$ in the length of head. Snout vertically truncated, with the lower jaw included within the upper; maxillary extending to the vertical from anterior edge of eye, its length about $\frac{1}{4}$ the length of head. 22 to 28 gill-rakers on the lower part of the anterior arch. 72 to 86 scales in a longitudinal series, 9 or 10 in a transverse series from origin of dorsal fin to lateral line, 7 to $8\frac{1}{2}$ between lateral line and base of pelvic fin, 22 to 24 round the caudal peduncle. Dorsal fin with 9 to 11 branched rays; origin nearer to end of snout than to base of caudal fin; longest ray $\frac{3}{4}$ to $\frac{7}{8}$ the length of head. Anal with 10 to 12 branched rays. Pectoral $\frac{3}{4}$ to $\frac{7}{8}$ the length of head, extending from a little more than $\frac{1}{2}$ to more than $\frac{2}{3}$ of the distance from its base to the base of pelvics, which are inserted below the middle of the dorsal. Caudal peduncle longer than deep, its least depth $\frac{1}{3}$ to $\frac{2}{5}$ the length of head. Silvery, back darker; back and sides with more or less distinct small blackish spots; similar spots sometimes present on the head and in transverse series on the dorsal and caudal fins; fins blackish.

Hab. Haweswater, Cumberland, and Ullswater, Westmoreland.

Twelve spirit-specimens, 220 to 340 mm. in total length, several of which have been recently presented by the Earl of Lonsdale, and a skin from Yarrell's collection.

Of these thirteen examples, ten have 10 branched rays in the anal fin, two 11, and one 12; seven have 8 scales

between the lateral line and the base of the pelvic fin, four $7\frac{1}{2}$, one 7, and one $8\frac{1}{2}$.

Subsp. b. *Coregonus pennantii*.

THE GWYNIAD.

Coregonus pennantii, Cuv. & Val. Hist. Nat. Poiss. xxi. p. 507 (1848).
Coregonus clupeoides (part.), Günth. Cat. Fish. vi. p. 188 (1866);
 Day, Fish. Britain, ii. p. 127, pl. cxxii. (1884).

Depth of body $3\frac{3}{5}$ to $4\frac{1}{4}$ in the length, length of head $4\frac{1}{4}$ to 5. Snout nearly as long as or a little longer than eye, the diameter of which is $3\frac{5}{8}$ to $5\frac{1}{2}$ in the length of head; inter-orbital width $3\frac{1}{3}$ to $3\frac{2}{3}$ in the length of head. Snout vertically truncated, with the lower jaw included within the upper; maxillary extending to or a little beyond the vertical from the anterior edge of eye; 21 to 23 gill-rakers on the lower part of the anterior arch. 76 to 90 scales in a longitudinal series, 9 or 10 in a transverse series from origin of dorsal fin to lateral line, 8 to 10 between lateral line and base of pelvic fin, 22 to 24 round the caudal peduncle. Dorsal fin with 10 branched rays; origin nearer to end of snout than to base of caudal fin; longest ray $\frac{4}{5}$ to $\frac{7}{8}$ the length of head. Anal with 11 to 13 branched rays. Pectoral $\frac{4}{5}$ to $\frac{7}{8}$ the length of head, extending from a little more than $\frac{1}{2}$ to a little less than $\frac{2}{3}$ of the distance from its base to that of the pelvics, which are inserted below the middle of the dorsal. Caudal peduncle longer than deep, its least depth $\frac{1}{3}$ or a little more than $\frac{1}{3}$ the length of head. Silvery, back darker; fins blackish.

Lake Bala, Merionethshire.

Six spirit-specimens, 210 to 400 mm. in total length, four of which have been recently presented by Sir Watkin Wynn and Mr. William Owen, and a skin from Jardine's collection.

Of these seven examples, four have 11 branched rays in the anal fin, two 12, and one 13; five have 9 scales between the lateral line and the base of the pelvic fin, one 8, and one 10.

4. *Coregonus oxyrhynchus*, Linn.)

THE HOUTING.

Coregonus oxyrhynchus, Günth. Cat. Fish. vi. p. 183 (1866); Day, Fish. Britain, p. 126, pl. cxxi. fig. 2 (1884).

Hab. Coasts and rivers of Europe from Scandinavia to Holland.

This species attains a length of 400 mm. and is often seen on the London market; Day records it from Lincolnshire, the Medway, and Chichester.



Regan, C. Tate. 1908. "A revision of the British and Irish fishes of the genus *Coregonus*." *The Annals and magazine of natural history; zoology, botany, and geology* 2, 482–490.

View This Item Online: <https://www.biodiversitylibrary.org/item/85286>

Permalink: <https://www.biodiversitylibrary.org/partpdf/64406>

Holding Institution

Smithsonian Libraries and Archives

Sponsored by

Smithsonian

Copyright & Reuse

Copyright Status: Public domain. The BHL considers that this work is no longer under copyright protection.

This document was created from content at the **Biodiversity Heritage Library**, the world's largest open access digital library for biodiversity literature and archives. Visit BHL at <https://www.biodiversitylibrary.org>.