

ded at the extremity; *anal* subequal, narrow, somewhat elongated; *lateral* line obsolete; *back* and *head* of a deep blue, with yellowish tints; sides and abdomen of pale blue; *pectoral*, *ventral*, *anal* and *caudal* fins slightly blended with a reddish green; *opercula* varied with yellow, red and violet; *iris* reddish, *pupil* black.

Scales of a middle size, readily falling off.

B. 7.—D. 19.—P. 18.—V. 9.—A. 18.—C.  $22\frac{5}{7}$  rays.

We observed this in October, 1816, on the coast of Marblehead and Sandy Bay, under the name of English Herring, which the fishermen have given to it, doubtless from a resemblance it bears to the Pilchard, from which it differs in having a straight dorsal fin, without emargination, as in the Pilchard. Taken with the seine, and cured for home consumption.

(To be continued)



*An Account of the Crustacea of the United States. By Thomas Say. Read November 11, 1817.*

(Continued.)

[Since these papers were read to the Academy, we have found, in the southern states, several interesting and apparently new crustaceous animals, descriptions of some of which will now be added, and those of the remaining ones will form a supplementary addition to this essay; this notice is only given to account for the anachronisms that may appear.]

### Genus PENÆUS.

Three anterior pairs of feet didactyle, the anterior pair shortest; *interior antennæ* inserted above the line of the exterior ones, which have a large scale attached to the peduncle; *tail* with the middle process elongate-triangular, broader at base.

## SPECIES.

1. *P. fluviatilis*. *Rostrum* serrated above with about nine teeth, beneath with about two; *tail* and *terminal joints* of the *abdomen* carinated; *tail* with middle process canaliculate above.

*Astacus fluviatilis Americanus*. *Seba*, tom. iii. tab. 17. fig. 2.

*Inhabits* North America.

*Rostrum* as long as the scales of the antennæ, grooved each side, armed above with from seven to nine teeth, of which the posterior one is distant from the others, and two, three, rarely four teeth beneath, which, when but two, are distant and placed nearer the tip; a short spine at the base of each interior antennæ, terminating an oblique short carina, which is margined above by a groove that is bifurcated before its posterior termination, with an acute, short spine in the angle; an abbreviated longitudinal line and groove, sometimes obsolete, originates behind the exterior antennæ, forming with the preceding groove the letter N; *eyes* large; *exterior antennæ* double the length of the body, scales longer than the second joint of the interior antennæ, with a deeply impressed submarginal line; *abdomen* with the fourth and fifth segments carinated; sixth segment with the carina more elevated, mucronate behind, a lateral line of longitudinal abbreviated lines on the fifth and sixth segments; *tail* with the middle process deeply canaliculate and mucronate; *feet* with the first and second joints of the anterior pair, and second joint of the second pair armed with a spine beneath; fingers with short fascicles of spines. Length about eight inches.

Rarely brought to the Philadelphia market. *Seba's* figure is without doubt intended for this species, though

all the feet are represented as didactyle; this, however, was, it would appear, an error in the drawing.

The name of *fluviatilis*, applied by this author to our *Penæus*, is certainly not so appropriate as many others which might be substituted, more especially as it is not an inhabitant of fresh waters, as its name seems to indicate, but is always found in salt or brackish water. Nevertheless, as the name has been given, it would be presumption of the most reprehensible kind in me to reject it, particularly as the species is actually found within the mouths of rivers, probably as high up as the salt water extends.

The sexes are distinguishable from each other by the absence or presence of a connecting membrane to the anterior pair of natatory feet; the membrane is formed by the dilatation and junction of the inner appendages of these parts.

They appear in great numbers in the estuaries of the southern states and Florida early in the spring, when they are caught, to supply the markets, by means of a cast net; the fisherman ascertains their presence in the water at night, by the lines of light which are formed by their darting amongst the phosphorescent molluscæ, when a splashing of the water, or the advance of a boat, alarms them.

When recent, the colour is usually whitish, tinged with reddish, and each side, particularly of the abdominal segments, with very pale greenish yellow, and sprinkled in every part, except the eyes, tips of the caudal lamellæ, pectus and venter, with small, radiate, reddish-brown spots; eyes greenish, with dark moveable pupil; caudal lamellæ tipped with verdigrise green, cilia red; antennæ reddish, the dorsal carina of the fourth, fifth and

sixth abdominal segments, and the rostrum, are brown above.

### Genus CALLIANASSA.

Four anterior feet didactyle; *anterior pair* largest, very unequal; *second pair* much smaller; *third pair* submonodactyle; *fourth* and *fifth pairs* spurious, obsolete didactyle; *antennæ* inserted in nearly the same horizontal line, *intermediate* ones with double seta and elongated peduncle of which the terminal joint is much longest, *exterior* ones without lamellæ; *exterior caudal lamella* simple.

C. \**major*. *Thorax* one fourth the length of the body, somewhat membranous, with an oval coriaceous plate above, which before forms a rostrum of a very small projecting acute angle; *eyes* very small, placed on the upper side of their peduncles, which are cylindrical, approximate at base, incumbent on and as long as the first very short joint of the interior antennæ, obtuse, and originating under the anterior margin of the thoracic plate; *exterior antennæ* longer than the thorax, two terminal joints of the peduncle equal, *seta* more than thrice the length of the peduncle; *interiores* more than twice the length of the others, more robust, deeply ciliated beneath; *external pedipalpi* with the second joint much largest, compressed, oval, third joint not so large as the fourth, which is semi-oval, terminal joint or nail closing on the edge of the preceding joint; *feet*, with the exception of the two last ones, compressed; *anterior larger foot* placed indifferently on the right or left, and is the only part that is of a compact crustaceous consistence, third joint sublinear, granulated, compressed within, convex on the exterior side,

raised into an angle on the middle of the lower edge and incurved at base; *carpus* trilateral, granulated, not concave, at base beneath projected into a prominent angle or hook, which on the hind edge is furnished with a few short stout hairs, superior edge simply emarginate near the base; *hand* very much elongated, sublinear, compressed, glabrous, two-jointed, first joint a little contracted towards the base, not broader than half the length of the *carpus*, second joint equal in breadth to, and, excepting the fingers, two thirds the length of the preceding joint; *fingers* more than half as long as the preceding joint, with fasciculated hairs, thumb rectilinear at base, decurved at tip and armed with a strong, truncated tooth behind the middle, finger unarmed, incurved; *second pair* of feet with the third joint obtriangular, equal at tip to the base of the fourth, which, with the thumb and finger, is triangular, terminal joints deeply ciliated; *third pair* with the penultimate joint transverse, attached to the preceding one by the middle of the base, deeply ciliated and terminated at the superior tip by a very small joint, which is rounded at base and acute at tip; *fourth and fifth pairs* somewhat cylindrical, terminal joints comose, thumb and projecting angle or finger concealed by the hair; *abdomen* of six segments, two anterior ones membranaceous, the first narrowed to the base, supported on each side, and at the tip beneath, by a semicrustaceous rib, with a linear appendage at each of the hind angles beneath, the second segment supported on each side by a vitreous scale, and at base beneath by an angular semicrustaceous rib, with linear appendices as in the preceding segment; third, fourth and fifth segments semicrustaceous, octangular, subequal; sixth segment subquadrate, narrowed behind

and contracted each side in the middle; *natatory appendices* attached to the third, fourth and fifth segments, composed each of a semilunate plate, with an incurved fin attached to the anterior lateral base, which when at rest is placed on the anterior face of the plate, and the plate when at rest is incumbent forwards; *tail* rounded at tip, contracted towards the base, and about two thirds the length of the preceding segment; *lateral lamellæ* simple, longer than the tail, inner one linear, comose, exterior one dilated, triangular, ciliated at tip.

*Inhabits* the coasts of the southern states and of East Florida.

Cabinet of the Academy.

Length of the specimen four and a half inches.

The exuvia of this singular animal, particularly of the large anterior foot, occurs very frequently on the sea beach of the southern states early in the spring. It is rarely seen, owing to its recluse mode of life. We found this specimen by digging in the sand of the bay shore of the river St. John in East Florida, about eighteen inches below the surface, near low-water mark; it had formed a tubular domicil, which penetrated the sand in a perpendicular direction to a considerable depth, the sides were of a more compact consistence than the surrounding sand, projecting above the surface about half an inch or more, resembling a small chimney, and rather suddenly contracted at top into a small orifice. The deserted tubes of the *Callianassa* are in many places very numerous, particularly where the sand is indurated by iron into the incipient state of sand-stone; they are always filled up, but may readily be distinguished by the

indurated parieties and summit often projecting a little above the general surface.

A curious parasite abounds on the body of this species, perfectly distinct from the genus *Ione* of Mr. Latreille; a description of it will be given in its proper order.

### Genus GEBIA.

*External caudal lamellæ* simple; *tail* quadrate; *antennæ* placed on the same horizontal line, *interior* ones short, with two setæ and elongated peduncles, of which the third joint is much longest, *exterior* ones destitute of the accessory lamina at base; *feet* ten, two anterior ones monodactyle with a projecting angle for a finger.

#### SPECIES.

*G. \*affinis.* *Thorax* glabrous, transversely grooved in the middle by an arcuated line, behind which, on each side, is a minute spine, anterior part of the thorax covered with numerous fascicles of short, rigid hairs, arising from short tubercles, or impressed interrupted lines somewhat arranged in longitudinal rows, broad before and divided into a short canaliculated rostrum, and a prominent tooth each side, which is rather shorter, and separated from it by a groove, which is longer than that of the rostrum, and like it glabrous, rostrum and teeth hairy to their tips, the latter with a short spine beneath; *eyes* smaller than their peduncles, which are hairy above, concealed; *anterior* feet largest, ciliated with long hair beneath (excepting the carpus) on the inner edge; second joint with a spine beneath, third joint with four or five beneath and one above near the tip; *carpus* subtriangular, with three very small ones above, five or six at tip larger, and the

largest acute one at the inferior inner tip, an impressed longitudinal line on the outer side; *hand* not broader than the carpus, linear, nearly equal to the third joint, with three elevated ciliated lines above, two impressed ciliated ones on the outer side, beneath with long hair, and a groove, which is a little oblique, and marks the origin of the short angle or finger at tip, a short spine above at base, finger as long as the carpus, with three or four lines of rigid hairs, grooved on the outer side and glabrous within; *second pair of feet* ciliated with long hair beneath, third joint with a prominent acute spine at base beneath, and another somewhat dilated and compressed at tip above, nail deeply ciliated above; *third pair* hairy on the terminal joints, third joint about three-spined beneath and a little hairy; *fourth* and *fifth pairs* hairy on the terminal joints, nails very small and concealed by the comose termination of the feet, those of the former closing on the tip of the preceding joint, those of the latter upon a projecting angle of the preceding joint; *abdomen* glabrous, segments each with a lateral, longitudinal, impressed, submarginal line, the first, second, sixth and fifth subequal, the latter shorter, third and fourth equal shortest; *natatory feet* composed of a suborbicular peduncle, supporting two deeply ciliated lamellæ, of which the outer one is more than as long again as the inner one, suboval, attenuated at base and acute at tip, inner one oval, narrowed at base; *caudal lamellæ* short, ciliated at tip, deltoid, subequal, the inner one smaller, truncate at tip, a longitudinal elevated line in the middle, and a costal outer margin which is slightly angulated near the base, outer edge somewhat rounded at tip and at the inner angle, two

raised lines near the middle, which are recurved at tip, and an outer costal margin; *tail* subquadrate, with an impressed longitudinal line, entire at tip.

*Inhabits* Georgia.

Cabinet of the Academy.

Length two inches and a quarter.

Found on an oyster bed near the edge of the water at low tide, and appears to be rare. Its analogue of Great Britain, upon which this genus was founded by Dr. Leach, discovered by Mr. Montague, and by him described in the Transactions of the Linnean Society of London, is also very rare, and inhabits the subterraneous passages of the Solens or Razor shells; our species is very similar to that, but differs from it more especially in having the extremity of the tail entire.

### *Genus* ALPHEUS *of Fabricius.*

*Feet*, two anterior pairs didactyle; *carpus* of the second pair divided into several joints.

#### *SPECIES.*

1. A. \* *heterochælis*. *Hands* of the anterior feet very unequal, larger one deformed and having a very small transverse *carpus*; *rostrum* simple, spiniform, acute.

*Inhabits* coasts of the southern states.

Cabinet of the Academy, and Museum of South Carolina.

*Thorax* glabrous, unarmed; *rostrum* carinate in the middle and terminating in an acute point which nearly attains the tip of the first joint of the inner peduncle; covering of the eyes convex, prominent, rounded at tip; *superior antennæ*, a small scale terminating in an acute

spine and placed at the outer base of the peduncle; *pedipalpi* deeply ciliated, attaining the tip of the peduncles of the antennæ, first joint bicanaliculate beneath, third joint spinose beneath, spine movable, tip acute, a little hairy; *inferior antennæ* nearly as long as the body; *anterior feet*, hands very unequal, the larger one appearing deformed, nearly as large as the thorax, compressed, excluding the fingers, semioval, abruptly constricted near the fingers on each edge; *fingers* very robust, thumb cultrate, near the base, within a prominent lobe, or tooth, which is received into a corresponding fossula of the base of the finger, surface a little hairy, hairs assembled at tip into a double row, finger concave within for the reception of the thumb, obliquely emarginate above on the inner edge near the tip, and extending into an angle near the middle of the inner edge; *carpus* minute, transverse, carinated, shorter than the thumb; *second pair of feet* smallest, but not shorter than the hind ones; *three posterior pairs*, penultimate joint armed beneath with moveable spines and a few hairs, nails horny, glabrous, acute, *tail* at tip rounded, narrower than at base, deeply ciliated, above behind the middle four, small, conic, moveable spines, placed in cavities; *external lateral lamella* biparted, two small spines at the outer tip of the first segment, and two larger at the tip of the peduncle, tips deeply ciliated; *colour*, when recent, green, sprinkled with numerous, small, brownish spots, a large dark green spot at tip of the caudal lamellæ; hand beneath white, fingers tipped with white.

Length nearly one inch and a half.

The larger hand of this animal attracts attention by its unusual size and deformed appearance; the individual

of the museum of South Carolina was found by Mr. L'Hermerier on the coast of that state. The specimen in the collection of the Academy we found on the coast of Amelia Island, Florida, concealed under a considerable mass of *Ascidia*; when placed in water, the thicker filament of the superior antennæ was supported in an erect posture, vibratory, and appeared deeply ciliated near the tip.

I have placed this in the genus *Alpheus* of Fabricius and Latreille, as the characters will not agree with those ascribed to that genus by Dr. Leach, such as "exterior caudal lamella simple; third segment of the abdomen gibbous above," &c. the antennæ also are relatively situate as in *Astacus*, and the scale at the base of the outer antenna is not proportionably larger than in that genus.

2. A. \**minus*. *Hands* of the anterior feet very unequal, larger one inflated, oblong-oval, equal; *carpus* very small; *rostrum* spiniform, and a lateral spine before the eye.

*Inhabits* coasts of the southern states, and of East Florida.

Cabinet of the Academy.

*Thorax* glabrous, *rostrum* and *convex lid of the eye* forming three subequal spines before, of which the *rostrum* is somewhat longer and more acute, the lateral spines conic-acute; *exterior antennæ* shorter than the body, scales at base acute, spiniform; *larger hand* oblong-oval, not compressed, colour white, tip red, banded near the base of the fingers with white in the female, and white tipped with green in the male, *nails* short; *external pedipalpi* obtuse at tip and crowned with spines.

Length, male four fifths of an inch, female one inch.

It is very possible that this may be the young of the preceding, notwithstanding its diverse characters, but we are at present disposed to consider it as distinct. The above description is drawn from seven specimens of different ages, all agreeing perfectly in these traits. They occurred in recent Spongia, &c. cast ashore by the waves.

### Genus CRANGON.

*Anterior feet* largest, monodactyle, and furnished with a spurious finger; second and third pairs very slender, simple; fourth and fifth more robust; *antennæ* inserted in nearly the same horizontal line, exterior ones with a large scale at base, interior ones of two setæ; *exterior caudal lamellæ* simple.

#### SPECIES.

*C. \* septemspinosus.* *Rostrum* not so long as the eyes, with a spine behind it on the thorax, and another on each side; *anterior feet* armed with a spine on the third joint beneath.

*Inhabits* bay shores and inlets of the sea. Common.

*Thorax* seven-spined, one of which is placed on the back before the middle, a lateral one on each side in a line with the dorsal one, another at the external canthus of the eye, and a more prominent one at the anterior angles, situated adjoining a shorter one with which the basal joint of the scale of the exterior antennæ is armed; two impressed lines arising, one from an oblique fissure in the superior margin of the orbit of the eye, and the other at a fissure in the external canthus, are confluent

above the lateral thoracic spine, and disappear behind the middle of the thorax on each side, a third line originates from the fissure in the external canthus, passes beneath the lateral spine and forms, with the two preceding lines, the letter N; *rostrum* shorter than the eyes, obtuse, margin elevated; *eyes* little prominent; first joint of the peduncle of the interior antennæ. concave above for the repose of the eyes, furnished on the external side with a submucronate small scale, resembling an elongated continuation of the inferior margin of the orbit of the eye, and armed beneath with an obtuse spine which is visible on dissection; *exterior antennæ* as long as the body, annulate with blackish-brown, scales nearly as long as the interior antennæ; spine of the anterior feet situate near the middle of the third joint beneath; *finger* spiniform, prominent, inflected; middle process of the tail simple, conic; colour, when recent, pale cinereous, with very numerous, irregular, stellate, blackish-brown spots.

Length of the body, from the tip of the rostrum to that of the tail, one inch and two fifths nearly.

An active little animal; when at rest at the bottom of the water it is not readily discoverable, owing to its being somewhat translucent and of a pale colour. This species, and those of the genus *Palæmon*, &c. are indiscriminately called *Shrimps* in this country. There is no doubt but our *Crangon septemspinosus* strongly resembles the *C. vulgaris* of Europe, which is the true shrimp; I have, in fact, considered it heretofore as the same, but it appears to differ in the number of spines.—It is found as far south as East Florida.

## Genus PALÆMON.

*Exterior antennæ* inserted below the line of the interior ones, and furnished with a large scale at base; *interior antennæ* with three setæ; *exterior lamellæ* of the tail undivided; *ultimate joint* of the *external palpi* shorter than the preceding; *four anterior feet* didactyle, first pair smaller.

## SPECIES.

1. P. \* *vulgaris*. *Rostrum* acute, with eight or nine teeth above, and three or four beneath; *fingers* of the larger pair of feet shorter than the palm of the hand.

*Inhabits* bays and estuaries. Very common.

*Rostrum* as long as the scales of the antennæ, ciliated between the teeth; *thorax* armed with two spines on each side, which are equal, and placed one at the base of the interior antennæ, and the other at the base of the exterior ones; an impressed line passes between these spines, and terminates about the middle of the side, an obsolete, oblique, abbreviated one originates at the superior margin of the orbit of the eye; peduncle of the scale armed with a spine at the exterior tip; first joint of the peduncle of the interior antennæ concave above, and furnished with a spine near the external base, and another near the external tip; *carpus* of the first pair of feet rather longer than the preceding joint, armed with a spine on the inner tip, hand elongate oval, unarmed, about one half as long as the carpus, fingers equal; *carpus* of the second pair, nearly equal to the preceding joint, unarmed, shorter than the palm of the hand, hand elongated, fingers uncinatè at tip, shorter than the hand, linear, equal, with two or three small, obtuse teeth at the base, middle process of the ap-

pendages of the tail, with two moveable, prostrate, conic spines placed each side in cavities; tip truncated and furnished with four moveable spines, of which the interior ones are much more elongated, and separated by an immoveable shorter one in the middle; interior *antennæ* about half as long as the exterior ones, the short seta ciliate with long, parallel, equidistant hairs; colour whitish, almost pellucid, with a few dark points, eyes dark, peduncles spotted with yellow.

Length from the end of the rostrum to the tip of the tail, one inch and two fifths.

This species is one of those which pass under the name of *Shrimp*, but they all differ specifically, as this does generically, from the true shrimp of Europe. It is congeneric with the European *Prawn*, and in point of form resembles it much, but that arrives to the length of five inches. Found as far south as East Florida.

2. *P. \* tenuicornis.* *Rostrum* with about eleven or twelve teeth above, and six or seven beneath; fingers of the larger feet rather longer than the palm of the hand.

*Inhabits* the Banks of Newfoundland.

*Rostrum* as long as the plates of the *antennæ*, densely ciliated between the teeth; spines of the thorax, and of the peduncles of the *antennæ*, placed as in the preceding species; *carpus* of the first pair of feet unarmed, and hardly longer than the hand, fingers linear, a little reflected, as long as the palm; *carpus* of the second pair as long or rather longer than the palm of the hand, fingers a little longer than the palm and reflected; *antennæ* very slender, white, interior ones more than two thirds of the length of the exterior ones.

Length ~~one~~ inch and one fifth.

Considerably resembles the preceding, but differs from it in the number of teeth in the rostrum, in the more attenuated antennæ, and greater length of the inner ones; the wrists, hands and fingers also are proportionally different, the fingers are a little curved upwards, but in the preceding they are in a right line with the hand. Described from a specimen in my cabinet; and another in the collection of the Academy, presented by captain Hamilton.

#### ORDER STOMAPODA. *Latr.*

*Head* distinct from the thorax, and divided into two parts, of which the anterior one supports the antennæ and the eyes; *eyes* pedunculated; *branchia* abdominal, placed behind each pair of natatory feet.

#### *Genus* SQUILLA.

*Thorax* exhibiting several joints; *interior antennæ* with three, articulated setæ; *exterior antennæ* simple, furnished with a scale; *abdomen* six-jointed; *tail* flabelliform.

#### SPECIES.

S. \* *Empusa*. *Abdomen* with eight, *four last joints* of the *thorax* with four, raised longitudinal lines; *four last joints* of the *thorax* not bifid over the coxæ of the feet; large plate of the thorax angulated over the coxæ of the arms.

*Inhabits* the coast of Rhodeisland.

Cabinet of the Academy.

*Thoracic plate* with an obvious lateral angle before the rounded termination; second segment shortest, two-

spined on each side at the edge, of which one is placed above the other; third and fourth segments entire over the insertion of the coxæ of the feet, mucronate; fifth segment somewhat rounded over the insertion of the posterior feet, where it is partially concealed by a small squamiform appendage, which is attached by a suture to the first joint of the abdomen; *thumb* armed on the inside with five, long, permanent spines, and terminated in a similar, but more elongated one, all received at tip in corresponding cavities of the anterior edge of the hand; *hand* elongated, thickened, pectinated on the anterior outer edge, parallel with the recipient cavities, three moveable spines near the base, inflected, so as to meet the terminal spines of the thumb; third or principal joint, unarmed; carinated line behind the anus very short.

Length of the female four and a half inches, male two and three quarter inches.

This fine species was found by Mr. Le Sueur on the coast of Rhodeisland, and was presented by him to the Academy. The very striking resemblance which it bears to the *S. mantis* has hitherto caused it to be confounded by naturalists with that species. But an attentive examination of its characters, and a comparison of them with those of the species just mentioned, will convince us that it is perfectly distinct. I will, in this place, briefly mention two or three differences, which of themselves are sufficient to justify a separation of the American species. The large plate of the thorax, in the foreign specimen of *S. mantis* under examination, is perfectly simple over the coxæ of the large feet or arms, whereas in our species, that part is extended into an angle; the next segment is, it is true, two-spined on each side in the European animal, but

those spines are placed horizontally, and not, as in our species, vertically, with respect to each other; the two following segments, also, are deeply emarginate over the insertion of the feet, but, in the species here described, they are simply mucronate in that part, the anterior lobe, which would form the notch, being wanting.

The specific name is taken from *Empusa* in Entomology, a genus of insects, which was separated by Mr. Illiger, from the Linnæan genus *mantis*, to which it has as much affinity, as the *Squillæ* here compared have for each other.

The *S. empusa* inhabits the coast as far south as East Florida, it varies a little in colour. I here add a description of the colours, &c. of a recent male specimen; *feet* white, *anterior ones*, second and third basal joints tinged with rosaceous and edged with yellow at their tips; *interior antennæ*, peduncles blackish, joints yellow at base, seta white annulate with black; *exterior ones*, peduncles dusky, seta white, scale yellow or greenish on the terminal half, and indistinctly spotted with minute brownish-black spots; *segments of the body* margined behind with darker green and edged with yellow; *tail* tinged with rosaceous, and varied with blackish and yellowish; *lamellæ*, inner ones black, paler at base, outer ones, first joint black, base and spines white, second joint yellow, inner margin black; *peduncle of the lamella* elongated, terminating in two white spines, of which the inner one is rather longer than the inner lamella, slightly toothed on the middle of its length, from whence a double groove proceeds to the tip, a spine over the insertion of the first joint of the external lamella which has also a spine under the insertion of the accessory plate; eyes cylindric, rounded at tips,

emerald-green, brilliant, placed obliquely on their peduncles.

The male may be readily distinguished from the other sex, by its smaller size, and by the presence of a small fistulous body, attached near the base of each of the hind feet beneath.

(To be continued.)

*Observations on two species of the genus GRACULA of Latham. By George Ord. Read May 19, 1818.*

Those Grakles, denominated by nomenclators *Quiscal*, and *Barita*, having been confounded, I shall attempt, by fresh descriptions, and a brief history of them, to place them in a point of view which shall prevent uncertainty in future.

**GRACULA *quiscala*.**

LINN. GMEL. i, p. 397—7.—*Purple Grakle*, LATH. *Gen. Syn.* i, p. 462—6.—*Monedula purpurea*, the *purple Jackdaw*, CATESBY'S *Car.* vol. i, p. 12, T. 12.—*Purple Jackdaw of the sea coast*, BARTRAM, *travels*, p. 290.—*Jackdaw*, *Arct. Zool.* i, p. 308.—153.—*Sturnus barita*, DAUDIN, *Traite' d'Ornithologie*, tome ii, p. 320.

Black, with reflections of pansy-purple on the *head* and *neck*; *interscapular region* rich lustrous steel-blue; *tail* rounded; the roof of the upper mandible furnished with a slight osseous carina; *length* sixteen and a half, *breadth* twenty-two and a half inches.

*Bill* from the angle of the mouth an inch and three quarters in length, black, as are also the *legs*, *feet* and *claws*; the upper mandible projects considerably over