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1854.

traction. This is particularly worthy of note now, since, recently, Martin Barry (Müller's Arch. 1850, p. 529) has advanced the doctrine of the spiral structure of muscular fibrillæ. We have not critically examined the ground on which Barry has based his views, but from our knowledge of this tissue, the phases of its formation from the earliest to the perfect state, and the various appearances it presents in different parts of the animal kingdom, we are led to venture the conjecture that its alleged spiral structure may be due to irregularities and anomalies of contraction.—*Silliman's Journal*, Sept. 1853.

DESMARESTIA PINNATINERVIA, MONT.

Some specimens of Alga, apparently new to our Flora, found floating in Lough Foyle in August 1853, were transmitted by Mr. W. Sawers of Londonderry to the late Meeting of the British Association, which were pronounced by the authorities there present to be a state of some common *Laminaria*. There were, however, peculiarities in the nervation and structure of the specimens which made this very improbable, and in the absence of Dr. Harvey, some of the specimens fell into my hands. After a minute examination and consideration of the probable affinities of the production, I applied to Dr. Montagne for his opinion, and he at once referred it to his *Desmarestia pinnatinervia*, figured from a specimen gathered on the coast of Spain, in the October number of the 'Annales des Sciences Naturelles' for 1842. The Irish specimens are indeed rather narrower, but differ in no essential character.

The species of Dr. Montagne is considered by J. Agardh as most probably a state of the broad form of *Desmarestia ligulata*, and this view is confirmed by Messrs. Crouan, who refer it as a variety to *D. Dresnaji*, Lamouroux, which is regarded as a form of *D. ligulata* by J. Agardh.

There is however a peculiarity of structure, as noticed both by myself and Mr. Sawers, which no one seems to have recorded, namely that the dark specks with which the specimens are sprinkled, and which exist equally in Dr. Montagne's plant, consist of red creeping anastomosing beaded cells, just like those of a young *Callithamnion*. It is possible, however, that these may be extraneous. It would be very desirable to compare very young specimens of the narrow form of *D. ligulata* with Mr. Sawers's plant, and till this is done, some doubt must still exist as to the real nature of the production. The youngest individuals that I have seen, sent to me by Mrs. Griffith, though retaining their disc, are already repeatedly divided.—M. J. B.

On Oligoneuria rhenana. By Dr. L. Imhoff.

Every year, usually in August, many thousands of an Ephemera make their appearance for several days together in this town (Basle). During a considerable series of years they appeared at the end of this month; in the year 1834 they were observed at its commencement; in 1851 they delayed their appearance until early in September. They are produced in the Rhine. A few hours before sunset, but not earlier, a few of these insects may be seen fluttering along

close to the surface of the water, whilst others rise to a greater height in the air and even fly over the bridge. These are all males; their numbers gradually increase as evening approaches, when they force themselves upon the notice even of the least observant. They appear then in multitudes, and when at the approach of night the females mix with them the crowds become still more dense, and the animals settle by dozens on the clothes of the passengers on the bridge, and the air appears as though snowflakes were whirling about in it in every direction. At a later hour innumerable multitudes of these Ephemeræ may be seen dashing in circles round the lamps. What takes place later in the night I know not, but in the morning we often find the dead bodies of the animals lying heaped together in prodigious quantities at the bottom of different houses situated close to the Rhine.

I have ascertained that these insects, which are rather nocturnal than diurnal, stray to a considerable distance from the river, but only single individuals, and these always males; for this year, some days after I had seen them on the bridge, I found single male specimens in the "Hardt," a wood which is at some distance from the Rhine. The spot where I took them was about three-quarters of a mile from the town on the road which passes through this wood, so that by this we know that the Ephemera exists at least that distance up the stream; but how much further its distribution may extend in that direction, or to what distance down the river it may make its appearance, is unknown.

These appearances of large quantities of Ephemeræ have long since been noticed in Paris and Holland by Réaumur and Swammerdam. The latter says, "Sometimes in Holland the sky suddenly becomes darkened, as though covered with clouds, and this arises from an innumerable quantity of Ephemeræ which are produced all at once, and which after death cover the shore, the ships and other objects, forming sometimes a layer of an inch thick." Latreille, speaking of the species described by Réaumur, says, "The fall of a species remarkable for the whiteness of its wings produces the appearance of one of those winter days when the snow descends in large flakes."

Pictet was informed by DeCandolle that on one occasion a small Ephemera crowded into his house on the lake of Geneva, and that all the furniture in the rooms in which lights were burning were covered with a thick layer of them.

One circumstance connected with this subject is interesting: each of these different districts has its particular Ephemera. The insect of the lake of Geneva (*Cœnis lactea*, Pict.) is not the same as that which makes its appearance in Holland (*Ephemera Swammerdamiana*, Lat.), whilst this again is distinct from that which rises from the Seine in Paris (*E. albipennis*, Lat. ?); and lastly, the species which inhabits the Rhine at this place differs from all the rest, and is as yet undescribed, or at all events is not described in the most comprehensive works on these insects,—Pictet's Hist. Nat. des Ephémérines.

Even the genus to which it belongs, although constituted by Pictet under the name of *Oligoneuria*, was but very imperfectly known to

him; its character is said to be, that, of the seven genera composing the family, it presents the smallest number of longitudinal nervures in the wings. Pictet possessed only two specimens, both females, and belonging to one species, which he calls *O. anomala*; one of them was received from Vienna and said to come from Brazil; the derivation of the other was unknown.

The wings of the present Ephemera, which I will name *Oligoneuria rhenana*, after the shedding of the last membrane are transparent and of a pure white; the nervures are yellowish. The body is brownish-yellow in the female, of a purer brown in the male; the former is about 4 lines, the latter 5 lines, in length. The caudal setæ of the female are about half the length of the abdomen; those of the male as long as the whole body. The compound eyes of the male are of a globular form and include nearly the whole of the head, whilst in the female they are much smaller and inserted in the sides of the head. Only two wings are visible until after the casting of the last skin, when four make their appearance.—*Bericht über die Verh. der Naturf. Gesellsch. zu Basel*, x. 1852, p. 177.

METEOROLOGICAL OBSERVATIONS FOR NOV. 1853.

Chiswick.—November 1. Cloudy and fine. 2. Very fine. 3. Foggy. 4. Very fine: overcast. 5. Uniform haze: clear at night. 6. Rain: foggy: uniformly overcast. 7. Foggy: overcast. 8. Foggy: fine: clear. 9. Clear and fine. 10. Frosty: fine: foggy. 11. Dense fog: clear at night. 12. Overcast. 13. Foggy: densely overcast. 14. Foggy: overcast. 15. Dense fog: rain at night. 16. Fine. 17. Frosty: fine. 18. Sharp frost: very fine. 19. Frosty: fine: clear and frosty. 20. Overcast: rain: clear and frosty. 21. Frosty: clear. 22. Foggy. 23. Dense fog. 24. Overcast: rain. 25. Hazy and dull: rain. 26. Overcast. 27. Fine. 28. Overcast throughout. 29. Densely overcast: rain. 30. Hazy: slight rain.

Mean temperature of the month	40°·14
Mean temperature of November 1852	47 ·38
Mean temperature of Nov. for the last twenty-seven years	43 ·18
Average amount of rain in Nov.	2·38 inches.

Boston.—Nov. 1—4. Fine. 5. Cloudy. 6. Cloudy: rain A.M. 7. Cloudy. 8—12. Fine. 13. Fine: rain P.M. 14. Fine. 15. Foggy: rain P.M. 16. Rain: rain A.M. 17—19. Fine. 20. Rain: rain A.M. 21, 22. Fine. 23. Cloudy. 24, 25. Cloudy: rain P.M. 26. Rain: rain A.M. 27. Cloudy. 28. Cloudy: rain P.M. 29. Cloudy: rain A.M. and P.M. 30. Cloudy: rain A.M.

Sandwick Manse, Orkney.—Nov. 1. Cloudy A.M.: rain P.M. 2. Cloudy A.M.: clear P.M. 3. Clear, fine A.M.: clear P.M. 4. Damp A.M. and P.M. 5. Cloudy A.M. and P.M. 6. Rain A.M.: clear, fine P.M. 7. Drizzle, showers A.M.: clear P.M. 8. Rain A.M.: hail-showers, lightning P.M. 9. Cloudy A.M.: damp P.M. 10. Cloudy A.M.: showers P.M. 11. Sleet-showers A.M.: showers P.M. 12. Bright A.M.: clear, fine P.M. 13. Cloudy A.M.: clear, fine P.M. 14. Cloudy, frost A.M.: damp P.M. 15. Clear, frost A.M. and P.M. 16. Cloudy, frost A.M.: clear, frost P.M. 17. Clear, frost A.M. and P.M. 18. Showers A.M.: cloudy P.M. 19. Cloudy A.M.: rain, cloudy P.M. 20. Clear, fine A.M.: sleet-showers P.M. 21. Clear, fine A.M.: clear P.M. 22. Bright A.M.: clear, aurora S. P.M. 23. Bright A.M.: clear P.M. 24. Cloudy A.M. and P.M. 25. Bright A.M.: rain P.M. 26. Clear, frost A.M.: clear, aurora P.M. 27. Clear, frost A.M.: rain P.M. 28. Clear A.M.: clear, aurora P.M. 29. Rain A.M.: clear, aurora P.M. 30. Bright A.M.: clear, aurora P.M.

Mean temperature of Nov. for twenty-six previous years	42°·59
Mean temperature of this month	44 ·87
Mean temperature of Nov. 1852	41 ·52
Average quantity of rain in Nov. for thirteen previous years	4·38 inches.