

the main Australian range along the meridian of 149° , where gold has been found. Rev. Mr. Clarke states the singular fact that just 90° west of the auriferous range in Australia, we find an auriferous band in the Urals; and just 90° west of the Urals occur the auriferous mountains of California.

III. ZOOLOGY.

1. *On the Classification of the Crustacea Corystoidea*; by JAMES D. DANA.—The Corystoidea have their closest relations with the Cancroidea, and form a passage between this division of the Brachyura and the Hippidea. They are remote from the Oxystomata in the mouth and efferent branchial channels, the latter having these channels *medial* over the palate, and the former *lateral* like the Cancroids. In the projection of the outer maxillipeds over the epistome, the elongated and more or less pilose outer antennæ, and the partially free or less closely inflexed abdomen, the species exhibit their degradation below the Cancer type. The Platyonychidæ are the Cancroids which approximate most to the Corystoids, and they are placed with this group by De Haan. But they differ from the Corystoidea in the shorter and more naked outer antennæ; and we therefore incline rather to retain them with the Crancroidea, where they are arranged by Milne Edwards.

The degradation of the Cancroidea is also seen in another line leading through *Acanthocyclus* to *Corystoides*, Lucas, and *Bellia*, Edw.* The last two genera are somewhat Corystoid in habit: yet they pertain to a distinct group, inasmuch as they have the outer antennæ obsolete or nearly so, and the inner antennæ *without fossettes*. This last character belongs only to the lower Anomoura and the Macroura, and places these genera quite low in rank in a group we name BELLIDEA which belongs near if not among the Anomoura.

In attempting to arrange the Corystoidea into groups, we consider, as in other cases, the relations of the species to the higher Crustacea, and by the transitions observed, we are led to our subdivisions. *Trichocera* is Cancroid in habit, in the absence of a beak, in the nearly naked outer antennæ, and in having the outer maxillipeds fitted neatly to the epistome. *Thia* and *Kraussia* are also without a beak, like the Cancroids, but have the outer maxillipeds overlapping the epistome. The remaining genera have the front somewhat rostrate, the inner antennæ longitudinal, the maxillipeds produced over the epistome and the outer antennæ elongate and pilose and flexed at base towards the medial line. The form of the third joint of the outer maxillipeds varies from narrow oblong to transverse in closely related genera, and affords no basis for a family distinction.

* In the synopsis of the Cancroidea in this Jour., vol. xii, p. 131, *Corystoides* was placed near *Acanthocyclus*, to which it has close relations; but from this and the other Cancroids, it is removed by the absence of all power of retraction in the inner antennæ.

The name *Bellia* has been recently duplicated in the science, in an article by Mr. C. Spence Bate, on a new genus of Amphipods near *Lepidactylis*, published in the *Annals and Mag. Nat. Hist.*, [2], vii, 318, pl. 11, f. 8, 1851. The description of Milne Edwards's genus of this name is published in the *Ann. des Sci. Nat.* [3], ix, 1848, p. 192.

The following are the families thus deduced, with the genera of Corystoidea and their characteristics.

FAM. I. TRICHOCERIDÆ.

Carapax formâ Cancroideus, fronte non rostratus. Antennæ internæ longitudinales. Antennæ externæ breves, flagello parce piloso. Maxillipedes externi super epistoma non producti, sed margini areæ buccalis bene adaptati.

Gen. TRICHOCERA, *DeHaan*.*—Frons dentatus. Articulus maxillipedis externi 3tius apice truncatus. Articulus antennarum externarum 1mus elongatus, hiatum orbitæ bene occupans.

FAM. II. THIIDÆ.

Carapax suborbicularis, non oblongus, fronte non rostratus. Antennæ internæ transversæ vel obliquæ. Antennæ externæ breves, flagello parce piloso. Maxillipedes externi super epistoma producti.

Gen. 1. THIA, *Leach*.—Frons integer, arcuatus. Antennæ internæ transversæ. Pedes nulli natatorii. Articulus maxillipedis externi 3tius vix oblongus.

Gen. 2. KRAUSSIA, *Dana*.† Carapax paulo transversus, margine postero-laterali brevi, fronte denticulato, medio emarginato. Antennæ internæ obliquæ. Pedes 8 postici natatorii, tarso falci-formi. Articulus maxillipedis externi 3tius vix oblongus.

FAM. III. CORYSTIDÆ.

Carapax sive suborbicularis sive multum angustus, fronte plus minusve rostrato. Maxillipedes externi super epistoma producti.

1. *Pedes nulli natatorii.*

G. 1. TELMESSUS, *White*.‡—Carapax parce transversus, pone medium latior, fronte paulo producto et medio emarginato. Articulus antennarum externarum 1mus elongatus, processu elongato hiatum orbitæ bene occupans. Articulus maxillipedis externi 3tius parce oblongus apice triangulatus, articulum 4tum prope apicem gerens.

G. 2. ATELECYCLUS, *Leach*.§—Carapax fere orbicularis, lateraliter arcuatus, fronte paulo producto. Articulus antennarum exter-

* Faun. Japon. (1833), p. 16.

† Ad species complectendum *Xantho integrum* DeHaanii, (Faun. Japon. 66, tab. 18, f. 6) et *Platyonychum rugulosum* Kraussii ("Südaf. Crust." 26, tab. 1, f. 5), Thiaæ affines et *Xantho* remotas, genus "Kraussia" institutum est. *Platyonycho* discrepat margine postero-laterali brevioris quam antero-lateralis, carapace paulo transverso, fronte bilobato et denticulato, flagello antennarum internarum subpiloso. An *Trichocera porcellana* (A. White, "Voy. Samarang," p. 59) a Kraussii specie differt?

‡ A. White, "Ann. Mag. Nat. Hist.," xvii, 497, 1846; *Voy. Samarang*, 14, tab. 3. *Atelecyclo*, habitu, antennis aliisque, *Kraussia* affinis: ejus affinitas *Maioides*, ab Adamsio White edita, justa non videtur.

§ *Chlorodius* DeHaanii, Faun. Japon., 13.

narum 1mus elongatus hiatum bene occupans. Articulus maxillipedis externi 3tius oblongus, apice oblique truncatus, in marginis interni emarginatione articulum 4tum gerens.

G. 3. PELTARION, *Hombron et Jacquinot*.*—Carapax suborbicularis, ante medium latior, fronte triangulatè rostrato. Articulus antennæ externæ 1mus perbrevis, 2do parce crassior. Articulus maxillipedis externi 3tius non oblongus, apice truncatus. Articulus pedum 8 posticorum 5tus 4to vix brevior.

G. 4. PSEUDOCORYSTES, *Edwards*.—Carapax suborbicularis, parce oblongus, triangulatè rostratus. Articulus maxillipedis externi 3tius vix oblongus. Articulus pedum 8 posticorum 5tus 4to duplo brevior.

G. 5. GOMEZA, *Gray*.†—Carapax oblongus, fere ellipticus, triangulatè rostratus. Oculi parvi vel mediocres. Articulus maxillipedis externi 3tius vix oblongus vel transversus, apice truncatus. Articuli pedum 8 posticorum 5tus et 4tus fere æqui.

G. 6. OEIDIA, *DeHaan* (partim).‡—Carapax oblongus, antice non angustans, fronte breviter rostrato. Oculi permagni. Articulus maxillipedis externi 3tius latus, oblongus, 2ndo paulo brevior. Articuli pedum 8 posticorum 5tus et 4tus fere æqui.

G. 7. CORYSTES, *Latreille*.—Carapax oblongus, rostratus. Oculi mediocres. Articulus maxillipedis externi 3tius angustè oblongus 2do vix brevior.

2. *Pedes postici natatorii.*

G. 8. DICERA, *DeHaan*.§—Carapax oblongus, rostro late triangulato. Pedes postici natatorii, tarso falciformi. Articulus maxillipedis externi 3tius angustè oblongus, 2do parce brevior.

2. *Conspectus Crustaceorum, &c.*—*Conspectus of the Crustacea of the Exploring Expedition under Capt. Wilkes, U.S.N.;* by JAMES D. DANA.—PAGURIDEA, (*Proc. Acad. Nat. Sci., Philad., 1851. p. 267.*)—This paper contains a distribution of the Paguridea into genera, and also a description of new species. The natural groups have been partly indicated by Milne Edwards in his work on Crustacea, and more lately in the *Annales des Sciences Naturelles* for 1848, p. 59. There are, however, in his arrangement, discrepancies between the characters of the species and those laid down for his subdivisions which we find it difficult to explain. Such are, the placing of *Pagurus tibicen* and some related species with his "*Æquimanes*," when the left hand is very much the larger, and the *guttatus* and *granulatus* with the "*Senestres*," although the hands are nearly equal in the former, and the right is the larger in the latter. Still his sections are in the main natural groups, and some of them have more important points of distinction than this distinguished author has mentioned.

* *Hombron et Jacquinot*, "Voy. au pole Sud," tab. 8, f. 1.

† *Oeidia DeHaanii* (partim), *Faun. Japon.* 15. Species *Oeidiæ* typica (*O. 20-spinosa* denominata) *Gomezæ* vera est.

‡ *Faun. Japon.* 15. Species *Oeidia distincta* *DeHaanii*, typus est generis *Oeidiæ* accepti. Genus idem est *Jonas*, (*Hombron et Jacquinot*, "Voy. au pole Sud," tab. 8, f. 4-8.) Species *J. macrophthalmus*, oculis grandibus formâ characteribusque aliis, *Oeidia distinctæ* ferme similis.

§ *Faun. Japon.* 14, (1833). *Nautilocorystes*, *Edwardsii*, *Crust.* ii, 149 (1837).