APPENDIX No. I.

Examples of Dredging Papers, selected in order to show the associations of species in the several regions. The numerous dredging operations on which this Report is founded were all registered in a similar manner.

The accentuated numbers in the column of "dead specimens" refer to the disunited

valves of Conchifera and Brachiopoda.

Plants.—Zostera oceanica. Caulerpa prolifera.

Dictyomenia volubilis. Acetabularia.

| | | II. | | | | | |
|---------------------------------------|---|---|-----------------|---|--------------------------|----------------------|--------------------|
| | | DateSeptember 12, 1842. | | | | | |
| Date | th, 1841. | Gulf of Smyrna, off | | | | | |
| Locality | Bay, Paros. | Locality | | | | | |
| Depth Distance from shore | six rathoms. | DepthSeven fathoms. | | | | | |
| Ground | | Mud a | nd sandy mud. | Distance from shoreHalf a mile. | | | |
| Region | att sutter, minus | | GroundDark mud. | | | | |
| | | Region | | .11. | | | |
| | 1i. | of | | | No. of li- ving spec. | No. of dend spec. | |
| Species. | S BI | 10. | Observations. | Species. | 3 20 | d. | Observations. |
| • | No. of li- | No. of dead spec. | | | S.ii | den | |
| Pinna squamosa | 0 | 1 | | Pecten sulcatus | 0 | 4' | Fullgrownvalves. |
| Modiola tulipa | | ō | In sandy mud. | — varius | 0 | 3' | Full size. |
| Pecten polymorphus. | | 6' | | Modiola barbata | 2 | 2' | |
| hyalinus | 1 | 0 | | Solen tenuis | 1 | 3' | Hitherto a fossil. |
| Nncula margaritacea. | 0 | 40' | In dark mud. | coarctatus | 0 | 8' | |
| Cytherea chione | 0 | 1' | | Thracia pubescens | 2 | 3′ | |
| venetiana | | 3-5' | | Ligula boysii | 0 | 2' 4' | |
| apicalis | 1 | 2-12' | | Pandora obtusa Tellina donacina | 0 5 | 10' | |
| Artemis lineta | | 1' 5' | | Corbula nucleus | 12 | 8-50' | |
| Pullastra virginea Venus verrucosa | | 5' | | Cardium echinatum | 0 | | Young speci- |
| Tellina donacina | | 1-3' | | Artemis lineta | ő | 101 | mens. |
| balaustina | | 2' | | Montacuta, sp | 0 | 1 | Much worn. |
| Ligula boysii | | 2-10' | | Nucula margaritacea | 5 | 30 | |
| Lucina lactea | | 2-38' | | emarginata | 6 | 3-15' | |
| squamosa | | 3′ | | Dentalium 9-costatum | | 30 | |
| - rotundata | | 4' | | Turritella terebra | 6 | 12 | |
| Cardium rusticum | | 1′ | A strong valve. | Parthenia elegantissi- | | 12 | |
| exiguum | | 7' | | Eulima subulata [ma Bulla truncatula | 0 | 4 | |
| Cardita sulcata | | 1' { | Washed in from | striatula | 0 | 6 | New. |
| Patella scutellaris | | 1/2 \ | shore. | Rissoa monodonta | 0 | 8 | All young. |
| Calyptræa sinense Bulla hydatis | | ī | | Ringuicula auriculata. | | 5 | in joung. |
| Turritella 3-plicata | | î | | Pleurotoma formicaria | | 2 | |
| Trochuscanaliculatus | | 4 | | Cerithium angustis- | 0 | 2 | |
| Cerithium lima | | 3 | | simum | | | |
| vulgatum | | 8 | | Buccinum variabile | 0 | 10 | |
| Murex fistulosus | | 0 | In dark mud. | granulatum | | 8 | Hitherto a fossil. |
| Aplysia depilans | | 0 | | Murex brandaris | | 2 2 | |
| Ostræa plicatula | . 0 | 10' | | Natica pulchella | 0 2 | 18 | |
| 70 71 / 4 / 1 | | 0-1: | na albida Unla | Calyptræa sinense | 1 2 | 18 | |
| Radiata.—Asterias | thus Sponges | Radiata.—Amphiura chiagi. Two specimens of Chi- | | | | | |
| Soverel Crustoges | thuria tubulosa. Caryophyllia cyathus. Sponges. Several Crustacea. Five specimens of a Gobius. | | | | | | |
| Dianta Zastano | ularna prolifera | rodota. Cucumaria pentactes, 2. No Zoophytes. | | | | | |

Crustacea.

Two species of Serpula. A few Annelides. Two

| Date | Bay of Va | thy, Amorgo. | Species. | No. of li- ving spec. | No. of dead spec. | Observations. | |
|--|-------------------------------------|--------------------------------|--|--------------------------|----------------------------------|------------------------|--|
| Distance from shore\ Ground | Vithin the and,grav | e port. | Tellina balaustina Hiatella arctica Dentalium9-costatum Natica valenciensii | 0 2 1 0 | 3' 0 3 1 | | |
| Species. | No. of dead spec. | Observations. | Chiton lævis Turbo rugosus Trochus creunlatus exiguus | 1 4 0 4 | 0 1 1 | | |
| Modiola tulipa | 30' | All very small. | — ziziphiuus Cerithium vulgatum — lima Triforis adversum [ni | 0 1 0 0 | 2 2 1 1 | | |
| — sulcata 0 Cardium exiguum 0 — papillosum 0 Nucula margaritacea. 3 | 3' 1' 50' | | Chenopus pes-peleca- Nassa prismatica Columbella rustica — linnæi | 0 0 0 0 | 1 1 2 3 | | |
| emargiuata 2 Ligula boysii 0 Lucina transversa 0 — lactea 0 | 15 50' 1' | | Fusus lignarius fasciolarioides Murex cristatus Pleurotoma formicaria | | 1 2 2 1 | New. | |
| Pleurotoma attenuata — ægeensis Rissoa pulchella | 1 1 5 | New. Hitherto a fossil. | —reticulataspinosa Mitra obsoleta —savignii[træoides Pleurobranchus calyp- | 0 | 0 1 2 2 | In crevices of sponge. | |
| Cerithium lima Onerita viridis Onatica millepunctata | 60 2 2 | | 1 Asterias. 2 Opl Many sponges, ann | | | rtosa. | |
| Parthenia elegantissi- Marginella clandesti- Bulla striatula [na oundesti- oundesti- undesti- oundesti- ou | 10 1 1 | New. | Date Locality Depth Distance from shore | Sej Gu 26 | pt. 14, 1 If of Sn fathoms | ıyrna. S. | |
| Dentalium 9-costatum 1 Ophioderma lacertosa, | one sp | ecimen. Echino- | Ground | Fir | e brow | | |
| Cyamus, dead. A few Cr | 3 4 | 3' 0 | hering to each other. | | | | |
| Locality | lead of Co O fathom One mile. | ervi Bay, Morea. | Amphiura chiagii. Plumulariæ and other Sertulariadæ adhering, with small sponges, to the Aviculæ. VI. | | | | |
| RegionI | II.(comn | A young shell. | Date Locality Depth. | Sej | pt. 16, I | Island, Gulf of | |
| Pecten polymorphus . — opercularis | 2 4' | Very small. Young specimens | Distance from shore Ground | Ye | llow sai | | |
| Cytherea apicalis Cardium exiguum de levigatum Cardita trapezia Cardita trapezia | 3' | Full size. | Lucina spinifera Ligula prismatica Pandora obtusa Astarte pusilla? | 0 | 2' 3 3 0 | | |
| Nucula emarginata | 10' 0 1 | Young specimens | Note.—The two p | Con | ing dred | lges are examples | |
| Ligula boysii | 1 | | selected from many | such, | of unp | ronne tracts in a | |

region usually fertile in living inhabitants. In this case a sea-bottom derived from the debris of fresh water tertiary formations seems to be the negative influence.

| VII. |
|---------------------------------------|
| DateDec. 1, 1841. |
| LocalityPort of Sumboli under Cra- |
| Depth30 fathoms. [gus, Lycia.] |
| Distance from shore Within the basin. |
| GroundAsh-coloured mud. |
| RegionIV. |

| Species, | No. of li- ving spec. | No. of dead spec. | Observations. |
|-------------------------|--------------------------|----------------------|---|
| Modiola tulipa | 0 | 1' | |
| Lima tenera | 0 | 1' | P P P |
| Pecten jacobæns | 0 | frag. | ft |
| polymorphus | 0 | 10' | n or |
| opercularis | 0 | 2' | sand ion o |
| Ostræa plicatula, jun.? | 0 | 10' | of or letti |
| Arca noæ | . 0 | frag. | r o |
| Pectunculus lineatus | 0 | 1 | two species occu indurated bar of bcen the destruct |
| Nucula emarginata | 0 | 2' 12' | g g gci. |
| margaritacea | 0 | 12' | th age |
| Cardita sulcata | 0 | 1' | n n |
| trapezia | 0 | 1' | tw nd |
| Cardium lævigatum | 0 | 1' | A |
| papillosum | 0 | 10' | no na ta |
| exiguum | 0 | 3' | 5° 5° 6° |
| echinatum | 0 | 20' | ne gdg |
| Venus ovata | 0 | 2' | dr. |
| - incompta? | 0 | 1' | is em |
| Cytherea venetiana | 0 | 2' | ch th |
| apicalis | 0 | 12' | .# § #. |
| Lucina spinifera | 0 | 10' | s among the many testacea taken in this dredge, only two species occurred in with a very shallow and narrow entrance, an indurated har of sa oss an inlet, the consequence of which has probably been the destruction as which formerly inhabited it. |
| sinnosa | 0 | 1' | it. |
| commutata | 0 | 1' | ta nd nee |
| Tellina donacina | 0 | 2' | a a ner ite |
| Saxicava arctica | 0 | 2 | sq. ow |
| Thracia pubescens | 0 | frag. | n s all |
| Corbula nucleus | 20 | 40" | Shirt o |
| Ligula prismatica | 0 | 6' | y orl |
| boysii | 0 | 4' | H F H |
| Solen coarctatus [mis | 0 | 6' | for et, |
| Gastrochænacuneifor- | 0 | 2' | in i |
| Murex brandaris | 0 | frag. | ni i i i |
| Aporrhais pes-pelecani | 0 | 2 | W S S |
| Cerithium vulgatum | 0 | 1 | hat an basin across lusca v |
| —— lima | 0 | 5 | base acr |
| Conus mediterrancus. | 0 | frag. | 5 5 5 T |
| Turritella 3-plicata | 0 | 1 | m me |
| Rissoa cimex | 0 | 2 | er of of |
| Trochus exiguus | 0 | 1 | s a se se t |
| contourii | 0 | 1 | It will be observed, that among the many testacea tak. The locality is a deep basin with a very shallow and pebbles having formed across an inlet, the consequence greater number of mollusea which formerly inhabited it. |
| sanguineus | 0 | 1 | lity may |
| Natica pulchella | 0 | 1 | rill S l |
| Bulla hydatis | 0 | 1 | t v loe ble |
| Dentalium 9-costatum | 2 | 5 | I I I I I I I I I I I I I I I I I I I |
| Bulimus acutus | 0 | 1 | E 2, 50 |

Leaves of olive and of Quercus coccifer were Columbella linnæi ... found imbedded in the mud. No zoophytes occurred. Cerithium lima

| | VII | I. | |
|---|--|---|---|
| Date Locality Depth Distance from shore Ground Region | Au Off 40 Th We | gust 5. north | s. |
| Species. | No. of li- ving spec. | No. of dead spec. | Observations. |
| Pecten pusio — opercularis Nucula margaritacea. Cytherea apicalis Cardita squamosa Cardita squamosa Cardium papillosum Fusus fasciolarioides Murex brandaris Vermetus gigas — corneus Trochus exiguus Turbo rugosus [dus Pleurobranchus sordi Doris tenerrima — gracilis — coccinea Ascidia, four species. Aplidium, two species. | 0 0 1 0 1 0 0 3 8 1 1 2 2 1 | 4' 1 2' 1' 1' 2 0 3 1 0 2 0 0 | Small. New. New. New. |
| Echinocyamus, aliveral Crustacea. Codium tomentosu | | dead. 1 | Plumularia. Seve- |
| Date Locality Depth Distance from shore Ground Region | 0fi 55 Th Mi | tober 1 f Cape (to 70 f ree-fou llcpore. | Crio, Asia Minor. athoms. rths of a mile. |
| Pecten pes-felis — hyalinus — pusio Venus ovata — Cytherea apicalis — Lucina bipartita — Astarte incrassata — Cardita trapezia — Arca barbata — Luctea — Terebratula truncata — detruncata — seminulum — Crania ringens — V | 0 0 0 0 0 0 0 0 0 0 10 18 | frag. 1' 2' 1' 2-2' 3' 4' 2' 1' 6-8' 30-10' 0 8' | |

llitherto only

fossil.

3

frag.

0 2

Fusus lavatus

---- crispatus.....

- turritellatus

Pleurotoma

| Triforis adversum | | | | | | | | |
|--|--|---------------------------|--|---------------------|--|--------------------------|--|---------------|
| Mitra obsoleta | Species. | No. of Ii- ving spec. | No. of dead spec. | Observations. | Species. | No. of li- ving spec. | No. of dead spec. | Observations. |
| Murex cristatus | Mitra obsoleta | 0 | 3 | New. | Emarginula elongata. | 0 | 1 | Well grown. |
| Cyptrae auropaea [mis | Trochus fanulum Turbo sanguiueus Turritella 3-plicata | 0 0 2 | 1 2 3' | | Crustacea.—Some s Radiata.—Echinus | small mon | ilis an | |
| — frelandi | Cypræa europæa [mis Emarginula capulifor-Lottia nuicolor Chiton rissoi | 0 0 1 1 | 1 2 3 0 | | Locality | Jul | ly, 1841 Serpho | -Poulo. |
| Echinus monilis, many specimens. Cidaris histrix, abundant, alive. Echinocyamus, many specimens. Myriapora truncata, alive. A small yellow Goby. Crania ringens. 0 35′ New. | fascicularis frelandi | I | 0 | | Distance from shore Ground | Tw Mi | o miles. llepore. | |
| Modiola | Echinus monilis, ma abundant, alive. Echinocyamus, man Myriapora truncata | ny spe y spe , aliv | cimens. | s. Cidaris histrix, | — detruucata — lunifera Crania ringens Lima elongata | 30 1 0 0 | 10-6' 0 35' 2' | |
| Distance from shore Three miles from N.E. Cape. Cytherea apicalis 0 2' Venus ovata 0 4' Astarte pusilla 0 2 Lucina commutata 0 1' bipartita 0 1' bipartita 0 1' bipartita 0 1' bipartita 0 1' Arca lactea 4 6' Pleurotoma crispata 1 3 Fusus muricatus 1 3 Fusus muricatus 1 1 0 | Date Locality | ast of Naxia. | Modiola | 1 0 2 0 | 1' 1-3' 4' 6' | Very young. | | |
| Arca lactea | Distance from shore Ground | Th Nu VI | ree mile llipore. I. | | Cytherea apicalis Venus ovata Astarte pusilla Lucina commutata | 0 0 0 | 2' 4' 2 1' | New. |
| Modiola | — detruncata Pecten varius — opercularis testæ | 18 6 0 1 | 6 4' 1' 2' | A small valve. | Arca lactea Pleurotoma crispata abyssicola | 1 0 | $\begin{bmatrix} 6' \\ 3 \\ 3 \end{bmatrix}$ | |
| Venus ovata | Modiola | 0 1 0 0 | $\begin{bmatrix} 2 \\ 0 \\ 1' \\ 1' \end{bmatrix}$ | apparently frag. | — reticulata — minuta Fusus muricatus Triforis perversum | 1 0 0 0 | I 4 5 1 | New. |
| Gracilis Inex 1 0 0 0 0 0 0 0 0 0 | Venus ovataArca tetragona — scabra Murex cristatus, var | 1 1 0 4 | 2' 1' 2 2 | | Turritella 3-costata Trochus exiguus Turbo sanguineus Rissoa reticulata [na | 0 0 0 6 | 2 2 2 36 | |
| Cerithium lima 2 6 Cleodora pyramidata . 0 1 | gracilis [næ crispata reticulata formicaria | 1 1 0 1 | 0 1 1 0 | Hitherto fossil. | Tornatella pusilla Emarginula elongata . —— capuliformis | 0 0 | 1 1 2 | New. |
| Trochus exiguus 2 I Phasianella pulla 1 0 Rissoa reticulata 1 3 — ventricosa 1 0 A straggler? Two rugosus 2 0 Natica pulchella 0 I | Trochus exiguus Phasianella pulla Rissoa reticulata — ventricosa Turbo rugosus | 2 1 1 1 2 | I 0 3 0 0 | A straggler? | Two species of spon Several zoophytes, i Echinocyamus, alive dead. | ge. nclud | ing Car | |

| Date Locality Depth | 0fi | pt. 16, 1 f Anana: 5 fathor | Rocks. | Species. | No. of li- ving spec. | No. of dead spec. | Observations. | |
|--|-------------------------------|---|--|---|--|--|---|--|
| Distance from shore | Fro Nı | om rocks illipore. | three miles, from | Lima crassa | 0 0 1 | 4' 5' 6' 1' | New. Young shell. | |
| Species. | No. of li- ving spec. | No. of dead spec. | Observations. | Arca lactea | 0 2 1 0 | 2' 4' 2' frag. | New. Full grown. | |
| Terebratula vitrea truncata detruncata seminulum appressa Crania ringens | 30 100- 18 1 | 2' 100-20' 400-6' 10-8' 0 6' | Dead and worn. Of all ages. Of all ages. Adhering to T. vitrea. New. | Pandora obtusa Kellia abyssicola Cardium minimum Rissoa reticulata Bulla utriculus Trochus millegranus . | 0 0 0 0 0 | 3' 8' 3' 6 1 | New. | |
| Lima elongata | 0 0 1 1 | 5' 1' 2' 1' 7' 2' | New. New. New. | Parthenia ventricosa. Dentalium quinquan- Atlanta peronii [gulare Ladas planorboides ? Limacina minuta Hyalæa gibbosa | 0 0 0 0 0 | 1 4 3 2 3 3 | New. Hitherto fossil. | |
| Neæra cuspidata attenuata Fusus echinatus | 0 0 0 0 | 1' 1' 2 | New. llitherto known | vaginellina Cleodora pyramidata. 3 species of Criseis? | | 1 4 | Abundant. | |
| Pleurotoma crispata — marivignæ abyssicola Mitra phillipiana Cerithium lima | 0 0 0 0 | 2 { 2 4 4 8 | only fossil. New. New. New. | Annelides.—Ditrupa subulata and pusilla, the latter alive. Crustacea.—Several small species. Radiata.—Amphiura chiagi. Spines of Cidaris. | | | | |
| Trochus tinei — exiguus Turbo sanguineus Rissoa reticulata Emarginula elongata Pileopsis lungarica Lottia unicolor Atlanta peronii | 4 | $\begin{bmatrix} & & & & & & & & & & & & & & & & & & &$ | Hitherto kuown onlyfossil in the Mediterranean basin, Small, New, Encrusted with | Date | Off 140 Ter | gust 2, Island I fathon n miles. hite mu | of Amorgo. ns. [of pumice. | |
| Hyalæa gibbosa Cleodora pyramidata . Criseis clava spinifera | 0 | 3' 7 10 | nullipore, and | Anomia polymorpha. Lima elongata — crassa Pecten similis | 0 0 | 1-4 12' 5' 30' 1' | Perhaps a strag- New. [gler. New. [ranean. New to Mediter- | |
| Pectinura vestita, many, dead. Young nilis, alive and dead Several species of Ser Small crabs. Forami | e. Echinus mo- | Nucula polii | 0 1 0 | 1' 1' 10' 1' 2-4' | New. | | | |
| Date | ns. [coast. les from Cervi | Ligula profundissima. Neæra costellata cuspidata Murex vaginatus | 2 0 1 0 | 5-17' 5-17' 12' 1 1 1 1 1 | New. [only fossil. Hitherto known [only fossil. Hitherto known A straggler. New. | | | |
| Pecten similis Lima elongata | | 10' { | New to Mediter- ranean. New. | distorta [gulare | 0 2 | 1 30 1 1 | Small. | |

| Species. | No. of li- ving spec. | No. of dead spec. | Observations. | Depth Distance from shore Ground Region | Tw Pal | o miles. e yellov | | | |
|--|--------------------------|--|------------------------------------|--|--|----------------------|---|--|--|
| Atlanta peronii ? Limacina minuta Hyalæa gibbosa — vaginellina Criseis clava | 0 0 0 0 | 10 I 40 | New. | Species. | No. of li- ving spec. | No. of dead spec. | Observations. | | |
| spinifera | 0 | 100 | | Pecten concentricus hoskynsi | 0 | 3' 4' | New. New. | | |
| Idmonea and anoth Ophiura abyssicola, Fragments of a Br | nla, one species; | — similis Arca imbricata Nucula striata — ægeensis | 0 1 0 1 | 3' 18' 2' 6-5' | New. | | | | |
| Ditrupa pusilla, and t | | | of Crustacea. | Kellia abyssicola Neæra cuspidata —— costellata | 4 1 1 | 20' 3' 8 | New. [only fossil. Hitherto known | | |
| Date | | pt. 17, 1 | 841. | Ligula profundissima. | 0 | 3 3 – 15′ | New. | | |
| Depth Distance from shore | 150 | 0 fathon ur miles | • | Pleurotoma abyssicola Nassa intermedia, var. | | 3 3 | New. New. Hitherto fossil | | |
| Ground | | Rissoa reticulata | 0 | 12 | only in Medi- terranean, re- cent in North | | | | |
| Pecten similis concentricus dumasii | | 30' 2' frag. | New to Mediter- [ranean | [na Marginella clandesti- Dentahum quinquan- | 0 | 3 36 | Seas. | | |
| Lima elongata crassa Arca lactea | 0 | 8' 8' 10' | New. New. | Hyalæa cornea [gulare — gibbosa | 0 | frag. | | | |
| | 0 | 1' 1' | New. | —— vaginellina Cleodora pyramidata . Criseis clava | 0 | 1 12 many | | | |
| Kellia abyssicola Neæra cuspidata —— costellata | 0 | 10-50' 2' 3' | [only as fossil. Hitherto known | ? Limacina minuta | 0 | many many many | New. | | |
| — abbreviata Cardita squamosa Ligula profundissima | 0 | 2' 1' 1-15' | New. A young valve. | Carinaria mediterra- Peracle physoides [nea | | 10 | New. | | |
| Cramia ringens [ta Terebratula detrunca Murex vaginatus | 0 | 2' 2 1 | Stragglers. And two frag- | Many Nodosariæ and other Foraminifera. The carapace of a crab. Λ very small living spong | | | | | |
| Fusus muricatus [na Marginella clandesti- Rissoa reticulata | 0 | 1 12 | ments (hitherto fossil). | | | | | | |
| —— ovulata Parthenia ventricosa Cerithium lima | 0 0 | 2 1 1 | New. Straggler? | DateNov. 25, 1841. [Asia Minor LocalityS. extremity of Gulf of Macri Depth230 fathoms. | | | | | |
| Lottia unicolor Scissurella plicata Peracle physoides | . 0 | 1 3 3 | ottaggier . | Distance from shoreOne mile (shore steep). Ground | | | | | |
| Hyalæa gibbosa vaginellina | . 0 | 22 1 2 | | Terebratula vitrea | . 0 | 2' 3' | \ | | |
| Cleodora pyramidata | . 0 | many 2 | | Ligula profundissima Arca imbricata[gulare Dentalium quinquan | 1 | 1' 0 | New. | | |
| Criseis, the three species abundant. | | | | Hyalæa gibbosa Cleodora pyramidata Criseis spinifera | . 0 | 1 8 5 | | | |
| Date | XV Q | ec. 23, I | 843. [Asia Minor | A glassy Serpula, Annelide adhered to of Alecto and a Loba | the T | | | | |