

List of the Marine Algæ of the Isle of Wight.

By

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Some years ago I collected Marine Algæ during nearly two winter-months — the last week of December, January and a part of February — at different places on the Isle of Wight, especially at Ventnor and Steephill Bay. Dredging was, however, almost impossible, as the weather was too rough, and I therefore mostly looked out for litoral Algæ and such sublitoral ones cast on shore after gales.

The Marine Flora of that part of Britain has often been investigated by algologists, and the first list of Algæ was, so far as I know, compiled by *A. Hamborough* in „Guide to the Undercliffs“, written by *Canon Venables*. I have not had the opportunity of seeing that list. At a later time *C. Parkinson* published a short description of all the species known to him in „The Marine Algæ (Sea-Weeds) of the Isle of Wight“, Ventnor. Although I have only a few species to add, as I dredged very little, and I could not be expected to meet with many annual species at that time of the year, I want to publish the following list. It may perhaps be of interest as a contribution to the knowledge of marine winter-vegetation and the time of reproduction.

In the above mentioned paper, *C. Parkinson* regards the coast of the Isle of Wight as „one of the best localities for Sea-weeds in England“. To my opinion it is a rather poor locality; the species giving its characteristic of the vegetation are few in number, many of the species found are rare though common in adjacent

districts, and the total number is much smaller than in adjacent parts of the British coast, though the list probably may be rather enlarged on future investigations in another season of the year.

As to the geology of the island *Charles Lyell* remarks in his „Principles of Geology“, London 1853, p. 317: „ I may point out the relation which the geological structure of the Isle of Wight bears to its present shape, as attesting that the coast owes its outline to the continued action of the sea. Through the middle of the islands runs a high ridge of chalk strata, in a vertical position, and in a direction east and west. This chalk forms the projecting promontory of Culver Cliff on the east, and of the Needles of the west; while Sandown Bay on the one side, and Compton Bay on the other, have been hollowed out of the softer sands and argillaceous strata, which are inferior, in geological position, to the chalk“.

Very considerable stretches of the bottom in the litoral and upper part of the sublitoral region — the lower part of the latter is unknown to me — is formed of mud, sand and clay, and it is well known that the vegetation always is very poor in such places. However, also in localities where the conditions appeared to be favourable for the growth of Algæ, with a bottom formed of hard clay or argillaceous strata, the vegetation was in general monotonous, never exhibiting any rich variety, and even some parts were nearly destitute of Algæ. Perhaps not even such bottom affords the Algæ that foot-hold which they need especially on an exposed coast with violent currents, or it may be caused by other physical or chemical circumstances.

Localities where I have myself collected a species are distinguished by marks of exclamation, and it is specially noted when any of the specimens found were provided with any kind of reproductive organs.

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Florideæ.

Corallinaceæ.

Corallina officinalis L.

Ventnor! Steephill! Luccomb!

C. squamata Ell.

Steephill! St. Lawrence! Niton (P.)¹⁾

C. rubens L.

Shanklin! Ventnor! Steephill!

Lithothamnion polymorphum (L.) Aresch.

Brook (P.).

Melobesia membranacea Phil.

Ventnor! Steephill!

Choreonema Thuretii (Born.) Schm.

Ventnor!

Squamariaceæ.

Petrocelis cruenta J. Ag.

Steephill!

Rhizophyllidaceæ.

Polyides rotundus (Gmel.) Grev.

Ventnor! Steephill! Bonchurch! St. Lawrence (P.).

The species bears sporocarps in January.

Nemastomaceæ.

Furcellaria fastigiata (L.) Lamour.

Ventnor! Steephill! Bonchurch!

Provided with sporocarps and tetrasporangia in January.

Dumontiaceæ.

Dumontia filiformis (Fl. Dan.) Grev.

St. Lawrence (P.).

¹⁾ P. = according to Parkinson l. c.

Dilsea edulis Stackh.

Ventnor! Steephill! Bonchurch! St. Lawrence (P.).
Tetrasporangia in December.

Grateloupiaceæ.

Halymenia ligulata (Woodw.) Ag.

Niton (P.).

Ceramiales.

Ceramium tenuissimum (Lyngb.) J. Ag.

Ventnor (P.).

C. diaphanum (Lightf.) Roth.

St. Lawrence (P.).

C. rubrum (Huds.) Ag.

Ventnor! Steephill! Bonchurch!

f. prolifera J. Ag.

Steephill (P.).

C. echionotum J. Ag.

Bonchurch (P.).

C. acanthonotum Carm.

St. Lawrence (P.).

C. ciliatum (Ell.) Ducl.

Bonchurch (P.).

C. flabelligerum J. Ag.

Ventnor! Steephill!

Tetrasporangia in January.

Spyridia filamentosa (Wulf.) Harv.

Shanklin! Luccomb! Ventnor! Steephill!

Antithamnion cruciatum (Ag.) Näg.

Luccomb (P.).

Ptilota plumosa (L.) Ag.

Steephill (P.).

Plumaria elegans (Bonnem.) Schm.

Ventnor! Steephill! Bonchurch (P.).

Callithamnion polyspermum Ag.

„Common“ (P.).

C. roseum (Roth) Harv.

St. Lawrence (P.).

- C. Hookeri* (Dillw.) Harv.
St. Lawrence (P.).
- C. Brodiaei* Harv.
Steephill (P.).
- C. arbuscula* Lyngb.
Shanklin (P.).
- C. tetragonum* (Wither.) Ag.
„Very common“ (P.). Ventnor! Steephill!
Tetrasporangia in December.
- C. tetricum* (Dillw.) Ag.
„Common“ (P.). Steephill!
- C. corymbosum* (Engl. Bot.) Lyngb.
Niton (P.).
- C. granulatum* (Ducl.) Ag.
„Abundant“ (P.). Bonchurch!
- C. byssoideum* Arn.
Steephill (P.).
- Halurus equisetifolius* (Lightf.) Kütz.
Luccomb! Ventnor! Steephill! St. Lawrence! Bonchurch!
Freshwater Bay!
- Griffithsia corallina* (Lightf.) Ag.
Luccomb (P.). Shanklin!
Tetrasporangia in February.
- G. setacea* (Ell.) Ag.
Bembridge! Shanklin! Ventnor! Steephill! Bonchurch!
Sporocarps in February.
- Spermothamnion Turneri* (Mert.) Aresch.
Ventnor! Steephill!
Bearing tetrasporangia in December.
- Spondylothamnion multifidum* (Huds.) Näg.
Luccomb (P.). Freshwater Bay!
- Rhodochorton Rothii* (Turt.) Näg.
St. Lawrence (P.).
- ?*Rh. mesocarpum* (Carm.) Kjellm.
Ventnor (P.).

Rhodomelaceæ.

- Rhodomela subfusca* (Woodw.) Ag.
Ventnor! Steephill! Bonchurch! Whitecliff Bay (P.).
- Laurencia obtusa* (Huds.) Lamour.
Luccomb (P.). Bembridge!
- L. pinnatifida* (Gmel.) Lamour.
Ventnor! Steephill! Bonchurch!
- L. hybrida* (De Cand.) Lenorm.
Luccomb (P.).
- Chondria tenuissima* (G. & W.) Ag.
Steephill (P.).
- Ch. dasyphylla* (Woodw.) Ag.
Niton (P.). Steephill! Bonchurch!
- Halopithys pinastroides* (Gmel.) Kütz.¹⁾
Luccomb! Ventnor!
- Polysiphonia urceolata* (Lightf.) Grev.
Sea View (P.). Steephill!
- P. elongella* Harv.
Luccomb (P.).
- P. elongata* (Huds.) Harv.
Bembridge! Shanklin! Ventnor! Steephill! St. Lawrence!
Bonchurch!
- P. variegata* (Ag.) Zanard.
Steephill (P.).
- P. fastigiata* (Roth.) Grev.
Ventnor!²⁾
- P. atrorubescens* (Dillw.) Grev.
Ventnor! Steephill! Niton (P.). Freshwater Bay!
- P. nigrescens* (Dillw.) Grev.
Bonchurch! Ventnor! Steephill! Luccomb! Niton! Fresh-
water Bay!
- P. parasitica* Grev.
Puckaster Cove (P.).
- P. Brodiaei* (Dillw.) Grev.
Niton (P.).

¹⁾ = *Rytiphlea pinastroides* Parkinson l. c. p. 26?

²⁾ „Steephill, on rocks“ Parkinson l. c. p. 27.

P. thuyoides Harv.

Ventnor! St. Lawrence! Niton!¹⁾

Lophothalia byssoides (Grev.) J. Ag.

Steephill (P.).

Dasya coccinea (Huds.) Ag.

Bonchurch! Ventnor! Steephill! St. Lawrence (P.). Cowes!

D. arbuscula Ag.

Ventnor! Shanklin (P.).

Bonnemaisoniaceæ.

Bonnemaisonia asparagoides (Woodw.) Ag.

Shanklin—Luccomb (P.).

Delesseriaceæ.

Delesseria alata (Huds.) Lamour.

St. Lawrence, Shanklin (P.). Ventnor! Steephill! Blackgang!

D. Hypoglossum (Woodw.) Ag.

Ventnor (P.).

D. ruscifolia (Turn.) Lamour.

Shanklin! Ventnor, West Cowes (P.).

D. sinuosa (G. & W.) Lamour.

Ventnor! Steephill!

Hydrolapathum sanguineum (L.) Stackh.

Niton, Shanklin (P.). Steephill!

Nitophyllum Gmelini Grev.

Ventnor!

N. laceratum (Gmel.) Grev.

West Cowes, Niton (P.). Steephill!

N. punctatum (Stackh.) Harv.

Shanklin (P.).

N. Hilliæ Grev.

Bonchurch (P.).

Rhodymeniaceæ.

Rhodymenia palmata (L.) Grev.

Bembridge! Ventnor! Steephill!

Tetrasporangia in January.

¹⁾ „Mr. A. Hamborough names several other species (of *Polysiphonia*) from the Isle of Wight, some I think scarcely more than varieties of the above species.“ Parkinson l. c.

- Cordylecladia erecta* (Grev.) J. Ag.
Steephill (P.).
- Lomentaria articulata* (Huds.) Lyngb.
Shanklin! Bonchurch! Ventnor! Steephill!
Tetrasporangia in December and January.
- L. clavellosa* (Turn.) Gaill.
Blackgang (P.).
- Champia parvula* (Ag.) Harv.
Watershoot Bay (P.).
- Chylocladia kaliformis* (G. & W.) Hook.
Shanklin (P.).
- Ch. ovalis* (Huds.) Hook.
Luccomb (P.). Ventnor!
- Plocamium coccineum* (Huds.) Lyngb.
„Nearly all tide pools“ (P.). Ventnor! Steephill!

Sphærococcaceæ.

- Calliblepharis ciliata* (Huds.) Kütz.
Bonchurch! Ventnor! Steephill! Alum Bay! Cowes!
Sporocarps in February.
- C. jubata* (G. & W.) Kütz.
Shanklin (P.).
- Gracilaria confervoides* (L.) Grev.
Bonchurch! Steephill!
Sporocarps in December.
- G. compressa* (Ag.) Grev.
Sea View (P.).
- Sphærococcus coronopifolius* (G. & W.) Stackh.
Bonchurch! Ventnor! Steephill!

Rhodophyllidaceæ.

- Rhodophyllis bifida* (G. & W.) Kütz.
Ventnor, Cowes (P.).
- Euthora cristata* (L.) J. Ag.
f. angustata Lyngb.
Ventnor!
- Catenella Opuntia* (G. & W.) Grev.
Steephill! St. Lawrence (P.).

Cystoclonium purpurascens (Huds.) Kütz.
Bonchurch! Ventnor! Steephill!

Gigartinaceæ.

Callymenia reniformis (Turn.) J. Ag.

„Found in masses“ (P.). Ventnor!

Callophyllis laciniata (Huds.) Kütz.

Ventnor (P.).

Phyllophora rubens (G. & W.) Grev.

Shanklin! Luccomb (P.). Bonchurch! Ventnor! Steephill!

Ph. Brodiaei (Turn.) J. Ag.

Shanklin (P.).

Ph. membranifolia (G. & W.) J. Ag.

Bembridge! Luccomb (P.). Ventnor! Steephill!

Gymnogongrus Griffithsiæ (Turn.) Mart.

Steephill (P.).

G. norvegicus (Turn.) J. Ag.

Shanklin (P.). Bonchurch! Ventnor!

Nemathesia in February.

Ahmfeltia plicata (Huds.) Fr.

Ventnor! Steephill! Alum Bay! Cowes!

Chondrus crispus (L.) Lyngb.

Ventnor! Steephill! St. Lawrence (P.).

Sporocarps in January and February.

Gigartina mamillosa (G. & W.) J. Ag.

Ventnor! Steephill!

G. pistillata (Gmel.) Stackh.

Steephill (P.).

G. acicularis (Wulf.) Lamour.

Brook (P.).

Gelidiaceæ.

Gelidium corneum (Huds.) Lamour.

Luccomb (P.). Ventnor!

G. crinale (Turn.) J. Ag.

Steephill!

Tetrasporangia in January.

? *Pterocladia capillacea* (Gmel.) Born.

Freshwater Bay!

The determination of this species is doubtful, as I only found a couple of barren specimens.

Naccaria Wiggii (Turn.) Endl.

Shanklin (P.).

Harveyella mirabilis Schm. & Rke.

Ventnor! Steephill!

The specimens found were steril but probably belonging to this species.

Chætangiaceæ.

Sciniaia furcellata (Turn.) Biv.

Ventnor (P.).

Helminthocladiaceæ.

Chantransia Daviesii (Dillw.) Thür.

Ventnor!

Provided with sporangia in December.

Porphyraceæ.

Porphyra laciniata (Lightf.) Ag.

Shanklin (P.). Ventnor! Steephill!

P. linearis Grev.

Steephill! St. Lawrence (P.).

Fucoideæ.

Himanthaliaceæ.

Himanthalia lorea (L.) Lyngb.

Bembridge, Steephill (P.).

Fucaceæ.

Fucus serratus L.

„Common“ (P.). Ventnor! Steephill!

F. vesiculosus L.

Nearly all rocky parts of the coast!

F. platycarpus Thur.

Ventnor (Holmes).

Pelvetia canaliculata (L.) Dcsne & Thur.

Niton, Steephill (P.).

Ascophyllum nodosum (L.) Le Jol.

Steephill (P.).

Cystoseiraceæ.

Halidrys siliquosa (L.) Lyngb.

Luccomb, Ventnor (P.). Steephill!

Bifurcaria tuberculata (Huds.) Stackh.

Niton (P.).

Cystoseira ericoides (L.) Ag.

St. Lawrence (P.).

C. granulata (L.) Ag.

Steephill! Ventnor!

C. discors (L.) Ag.

Luccomb! Steephill (P.).

C. fibrosa (Huds.) Ag.

St. Lawrence (P.).

Dictyotaceæ.

Dictyota dichotoma (Huds.) Lamour.

Shanklin! Ventnor! St. Lawrence!

Taonia atomaria (G. & W.) J. Ag.

Luccomb! Sea View (P.).

Padina pavonia (L.) Gaill.

Luccomb, Steephill (P.).

Haliseris polypodioides (Desf.) Ag.

Puckaster Cove (P.).

Ralfsiaceæ.

Ralfsia verrucosa (Aresch.) J. Ag.

Ventnor (P.).

Arthrocladiaceæ.

Arthrocladia villosa (Huds.) Duby.

Bonchurch (P.).*

Laminariaceæ.

Laminaria saccharina (L.) Lamour.

Bembridge! Steephill (P.).

f. *Phyllitis* (Stackh.) Le Jol.

Steephill (P.).

f. linearis J. Ag.

This form appeared in small number at extreme low-water mark between Ventnor and Steephill. The total length by dried specimens is 0.5—1.25 m., breadth of the lamina 3—5 cm., and the stem 5—15 cm. long. Most of the specimens collected in the middle of January were in change of lamina, sometimes the new lamina just in development, sometimes only bearing fragments of an earlier one. It was provided with sorus which in general occupys the whole lamina except a part of the margin about 5 mm. broad.

L. digitata (L.) Edm.

Ventnor!

New lamina in development in the middle of January.

L. hyperborea (Gunn.) Fosl.

Ventnor!

Provided with sorus in the middle of January. New lamina in development.

Saccorhiza bulbosa (Huds.) De la Pyl.

Ventnor (P.).

Alaria esculenta (L.) Grev.

Freshwater Bay (P.).

Chordaceæ.*Chorda filum* (L.) Stackh.

Shanklin! Bembridge, St. Lawrence (P.).

Chordariaceæ.*Chordaria flagelliformis* (Müll.) Ag.

Ventnor (P.).

Mesogloiaceæ.*Mesogloia vermiculata* (Engl. Bot.) Le Jof.

Ventnor (P.).

Leathesia difformis (L.) Aresch.

Niton (P.).

Elachistaceæ.*Elachista fucicola* (Vell.) Aresch.

Steephill (P.).

Desmarestiaceæ.

Desmarestia aculeata (L.) Lamour.

Bonchurch! Ventnor! Steephill! Alum Bay!

D. ligulata (Lightf.) Lamour.

Steephill (P.).

Punctariaceæ.

Striaria attenuata Grev.

Priory Bay (P.).

Punctaria plantaginea (Roth) Grev.

Ventnor! Steephill!

P. latifolia Grev.

Steephill (P.).

Asperococcaceæ.

Asperococcus bullosus Lamour.

Steephill (P.).

A. echinatus (Mert.) Grev.

Steephill!

Scytosiphonaceæ.

Scytosiphon lomentarius (Lyngb.) J. Ag.

Ventnor! Steephill!

Phyllitis fascia (Müll.) Kütz.

Ventnor, Culver Cliff (P.).

Ph. filiformis Batt.

I collected an Alga at Alum Bay which on the one hand reminds one of *Ph. zosterifolia* Rke., but on the other hand seems to be so nearly related to *Ph. filiformis* Batt. that any limit hardly may be drawn.

The plant grew gregarious in rather large number on sand-covered stones in the lower part of the litoral region. It is 4—6 cm. long, 80—250 μ broad, and the thickness in proportion to the breadth as 1: 3 or 1: 4, and rise from fibrous rootlets. Specimens collected in the middle of February were steril. If it as to the organs of reproduction proves to correspond with *Ph. filiformis*, the latter probably as most is to be regarded a form of *Ph. zosterifolia*. It may be remarked, that also other species growing in certain localities rise from fibrous rootlets or develop rhizoids instead of a typical disk-like base.

Sphacelariaceæ.

- Sphacelaria cirrhosa* (Roth) Ag.
St. Lawrence! Niton (P.).
f. *nana* J. Ag.
Bonchurch! Ventnor!
- S. plumigera* Holm.
Steephill (P.).¹⁾
- Cladostephus spongiosus* (Lightf.) Ag.
Ventnor! Steephill!
- C. verticillatus* (Lightf.) Ag.
Ventnor! Steephill! Bonchurch! Cowes! St. Lawrence (P.).
- Halopteris filicina* (Gratel.) Kütz.
Ventnor, St. Lawrence (P.).
f. *patens* Harv.
West Cowes (P.).
- Stupocaulon scoparium* (L.) Kütz.
Bonchurch! Ventnor! Steephill! St. Lawrence!

Ectocarpaceæ.

- Ectocarpus siliculosus* (Dillw.) Lyngb.
Steephill (P.).
- E. fasciculatus* Harv.
Freshwater Bay!
Bearing gametangia in February.
- E. granulosus* (Smith) Ag.
Luccomb (P.).
- E. tomentosus* (Huds.) Lyngb.
Luccomb (P.).
- Pylaiella litoralis* (L.) Kjellm.
Ventnor! Bonchurch! Steephill (P.).

Chlorophyceæ.**Ulvaceæ.**

- Monostroma Grevillei* (Thur.) Wittr.
Steephill (P.).²⁾

¹⁾ *S. plumosa* Park. l. c.

²⁾ *Ulva lactuca* Park. l. c.

- Ulva lactuca* L.
 „Common“ (P.). Ventnor! Steephill!
- Enteromorpha clathrata* (Roth) Grev.
 Ventnor? (P.).
- E. erecta* (Lyngb.) J. Ag.
 Niton (P.).
- E. compressa* (L.) Ahln.
 Ventnor? (P.).
- E. intestinalis* (L.) Link.
 West Cowes (P.).
- E. Linza* (L.) J. Ag.
 Ventnor! St. Lawrence (P.).

Cladophoraceæ.

- Spongomorpha arcta* (Dillw.) Kütz.
 „Common“ (P.). Shanklin!
- S. lanosa* (Roth.) Kütz.
 Niton, Ventnor (P.).
- f. uncialis* Fl. Dan. (Thur.).
 Niton (P.).
- Cladophora pellucida* (Huds.) Kütz.
 Niton, Shanklin (P.).
- C. Hutchinsiae* (Dillw.) Kütz.
 Woolverton (P.).
- C. latevirens* Harv.
 Ventnor! Steephill!
- C. rupestris* (L.) Kütz.
 Luccomb! Ventnor! Steephill!
- C. rectangularis* (Griff.) Harv.
 Niton (P.).
- C. gracilis* (Griff.) Harv.
 Bonchurch (P.).
- C. glomerata* (L.) Kütz.
 Steephill (P.).
- C. refracta* (Roth) Kütz.
 Niton (P.).

Chætomorpha melagonium (W. & M.) Kütz.

Niton (P.).

Ch. linum (Fl. Dan.) Kütz.

West Cowes (P.).

Ch. ærea (Dillw.) Kütz.

Niton (P.).¹⁾

Ulothrichaceæ.

Ulothrix flacca (Dillw.) Thur.

Ventnor! Steephill!

Bearing zoospores in January.

Codiaceæ.

Codium tomentosum (Huds.) Stackh.

Steephill!

Bryopsidaceæ.

Bryopsis plumosa (Huds.) Ag.

Ventnor, Steephill (P.).

Myxophyceæ.

Rivulariaceæ.

Rivularia atra Roth.

Steephill!

¹⁾ „*Chætomorpha implexa* Park. — Shanklin“. Doubtful.