

FULL PAPERS

A 150-year old seaweed collection returns to Cumbrae

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INTRODUCTION

Mr Tom Gray (Townsville, Queensland, Australia) - a great-grandson of Mr James Grayhame Vidgen who was organist at the Collegiate Church, now the Cathedral of the Isles, on Great Cumbrae between 1852 and 1865 (note Reid, 1864, p. 158) - most graciously presented his forebear's collection of pressed seaweeds to the University Marine Biological Station at Millport on 2 July 2006 (Anon., 2006). Besides playing the organ, Vidgen (whose family had hailed originally from Romney in Kent) was an early photographer (as reported by Moore, 2005, p. 16) as well as a collector of seaweeds. He married Emily Norris on Cumbrae (12 January 1858). Shortly thereafter, in 1865, he emigrated from Scotland with his expanding family to Australia (they had 12 children eventually), taking his collection of Clyde seaweeds with him. Remarkably, nearly a century and a half later, these seaweeds have now resurfaced at their *locus vivendi*.

Following extensive proselytisation, by the likes of Philip Henry Gosse (1810-1888), the Victorian era experienced what has been termed by Edwards (1986) the "cult of the seashore". This was manifested by a recreational craze for pressing seaweeds as well as for setting-up marine aquaria in well-to-do drawing rooms. Seaweed pressing as an artistic activity found favour particularly with women (including H. M. Queen Victoria), alongside other decorative (floral collages, needlework) interests. In what we now term the Clyde Sea area, the foremost contemporary influence would undoubtedly have been that of The Reverend David Landsborough (the elder) (1779-1854) of Saltcoats. An avid devotee of the Isle of Arran, Landsborough was a notable amateur marine naturalist locally. His volume entitled *A popular history of British sea-weeds*, which went through three editions (Landsborough, 1849, 1851a, 1857) was followed closely by his 1851 book *Excursions to Arran* etc (Landsborough, 1851b) which contained practical instructions for creating a marine herbarium. In following his vocation, David Landsborough found himself one of the leading ministers who split themselves away from the Established Church (the Disruption of the Kirk), to form the Free Church in 1843. Having lost his manse and living at Stevenston as a result, he turned to selling mounted collections of seaweeds as a means of supplementing his own and the Free Church's income,

closely involving even his children in that service (Allen, 1976; Clokie & Boney, 1979a). His books would have served to popularise the activity further and help stimulate demand. Shortly thereafter the dauntless Mrs Alfred Gatty, a Yorkshire parson's wife, wrote her more substantial two-volume *British seaweeds* (Gatty, 1863) catering to the market already primed by Landsborough (Allen, 1976). Vidgen clearly succumbed to this craze (during his last-remaining bachelor days in 1857 and, intermittently, up until 1861). Perhaps courtship and walks on the shore went hand in hand.

THE VIDGEN ALBUM

The flimsy album (36.5 x 30 cm) is rather fragile. It consists of 32 pages, mostly with four (max. 6, min. 2; depending on size) cartridge paper-mounted seaweed pressings per page, i.e. affixed to both sides of the page (the entire volume has been loose-covered with modern brown paper and bears no titular information). The pages are made of a coarse absorbent brown-coloured paper (now rather tattered at their edges) resembling sugar paper interleaved with, mostly bound-in, sheets of diaphanous tissue paper some now showing signs of decay (lacy perforation in places). Although generally fragile, for the most part the collection is in surprisingly good condition. Very few of the seaweeds have become detached or significantly damaged, which is perhaps remarkable given their trans-global peregrinations and lack of rigid binding. Most preparations are fully inscribed in ink with a reference number, the Latin name of the specimen, the date, site and initials of the collector. As such they form a valuable historical resource.

A total of 146 specimens (mostly of Rhodophyceae) are represented in the album, by far the majority emanating from Cumbrae; with a few from Portincross (Ayrshire), the South end of Bute and Skate Rock (Loch Fyne). References to material derived by dredging are indicative of access to a boat (as certainly the Skate Rock collection would demand). David Robertson (1806-1896) described the joys of dredging - using a rowing boat and hand dredge in those days - from Millport in 1856 (Stebbing, 1891, pp. 130-131), and it seems not unlikely that Vidgen might have accompanied 'the Cumbrae naturalist' on some such forays (years later Robertson, it may be recalled, was

buried in the Cathedral grounds). Nearly all the seaweeds in the album were collected by Vidgen himself but occasional preparations (three) make reference to another collector (MRTB; identity unknown), and some of the specimens have had their identifications inscribed in another's hand. This suggests that Vidgen might have sought an expert opinion for some of his unknown specimens (and, perhaps, that he swapped specimens). Occasionally, pencilled shorthand notes can be discerned on some mounts. The following is a list of all the algal specimens contained in the album, named as they appear (following conventional reading sequence) therein (Table 1). It seems perverse that one of the unidentified weeds in the album is the unmistakable *Padina pavonica*, a representation of which featured as a gold-impressed motif on the front cover of Landsborough's seaweed book (Landsborough, 1849).

I had expected the reference numbers to follow the numbering system in Landsborough (*loc. cit.*) seeing as that adopted a Roman numeral for the genus and an Arabic number for each species but, although Landsborough's numbers evolved through the three editions of *A popular history of British sea-weeds* (1849, 1851a, 1857), none of them match Vidgen's numbers. Rather, the reference numbers in the album relate to Harvey's scheme in his *Phycologia Britannica*, an expensive four-volume work (Harvey, 1846-1851); indicative of Vidgen's clear commitment to the subject. Certainly, the nomenclature in Table 1 is outdated. A specialist needs to check not only the nomenclature but also the accuracy of all these identifications. The intention of this notice is merely to bring to the attention of phycologists the existence of this hitherto unknown resource. Vidgen's material will complement the algal collections of Dr and Mrs David Robertson made in the Clyde Sea area during the period 1850-1896 (Powell & Conway, 1963). Two decades after Vidgen's collecting activities, Stirton (1876) published a listing of the cryptogamic flora of the west coast of Scotland that included marine algae. At the start of the twentieth century, Batters (1901) stated "probably no portion of the littoral of these islands has been more thoroughly explored by competent algologists than the shores of the Firth of Clyde". It is desirable, therefore, that we recognise the value of such early reference material (note the cautionary tale in Stebbing, 1891, p. 132), especially given the need nowadays for 'then versus now' comparisons (Clokier & Boney, 1979a). Norton (1974) has commented already that the diversity of Clyde algal species seems to have declined since Batters's listing of 1901 but pointed out the range of reasons why this might be more apparent than real. The most up-to-date checklist of Clyde marine algae remains that provided by Clokier & Boney (1979b) but, for the most modern taxonomic and distributional account, readers are directed to Hardy & Guiry (2006). My own algological shortcomings notwithstanding, one Vidgen specimen seems especially worthy of note at the outset: *Punctaria tenuissima* on *Zostera marina* from Cumbrae. Extensive beds of eelgrass (*Z. marina*) used

to be present on Cumbrae and the adjacent mainland shores until the 1930s when they experienced extirpation as a result of a *Labyrinthula* fungal infestation that swept through western European eelgrass beds (Muehlstein, 1989; Ralph & Short, 2002).

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Table 1. Verbatim details of the specimens of marine algae from the Clyde Sea in the Vidgen album, latin names as given therein (¶ ala = frond, * [my comment]; - = no information recorded).

Page No.	Ref. No.	Identity	Locality	Date	Leg.
1	XI.23	Young plant of <i>Alaria esculenta</i>	I. Cumbrae	Mar. 58	J.G.V.
1	XI.23	Ala¶ of <i>Alaria esculenta</i>	I. Cumbrae	Mar. 58	J.G.V.
1	VII.18	Part of *[in pencil, VII.18 young male]	I. Cumbrae	Mar. 58	J.G.V.
1	VII.18	*[in pencil, 'second year']	-	-	-
2	VII.19	[in pencil, <i>D. viridis</i>]	I. Cumbrae	July 58	J.G.V.
2	-	-	Cumrae	Mar. 58	J.G.V.
2	XXV.49	<i>Litosiphon pusillus</i> , on <i>Chorda filum</i>	Portincross	Sep. 1857	J.G.V.
2	XXIII.45	<i>Punctaria tenuissima</i> , on <i>Zostera marina</i>	Cumrae	5.57	J.G.V.
3	XIII.30	-	-	-	-
3	XVI.34	*[clearly <i>Padina pavonica</i>]	-	-	-
3	XII.29	<i>Laminaria fascia</i>	Cumrae	April 1861	MRJB or MRTB?
3	XXII.42	<i>Striaria attenuata</i>	Cumrae	18/6/61	-
4	XIII.31?	-	Cumrae	Mar. 58	J.G.V.
4	XIII.31	-	-	-	-
4	XXXIII.75	<i>Sphacelaria plumosa</i> dredged	Cumrae	June 57	J.G.V.
4	XII	-	Cumrae	Mar. 58	J.G.V.
5	XXXIII.76	<i>Sphacelaria</i> -- -. dredged	Cumrae	June 57	J.G.V.
5	XXXII.70	*[specimen detached but present]	-	-	-
5	XXXII.70	-	-	-	-
5	VIII.20?	-	Cumrae	Mar 58	J.G.V.
5	IX.21	*[specimen missing]	-	-	-
5	XXVII.54	*[in pencil, H. fus.?)	Bute, south end	Mar.58	J.G.V.
6	XIX.38	<i>Dictyota dichotoma</i>	I. Cumbrae	July 1858	J.G.V.
6	XIX.38	<i>Dictyota dichotoma</i> (var. <i>intricata</i>)	Cumrae	Sep. 1857	J.G.V.
6	XXVI.51	<i>Chordaria flagelliformis</i>	Cumrae	Sep. 57	J.G.V.
6	XIV.32	- dredged	Cumrae	July 57	J.G.V.
7	XXIV.47	<i>Asperococcus turneri</i> , dredged	Cumrae	Aug. 1857	J.G.V.
7	LXXXVIII.283	-	-	-	-
7	XXIV	-	Cumrae	Mar 58	J.G.V.
7	XXXIV.85	<i>Ectocarpus tomentosus</i>	Cumrae	July 1857	J.G.V.
7	XVII.36	<i>Zonaria parvula</i> , dredged	Cumrae	Sep. 57	J.G.V.
7	XXXIV	-	Bute, south end	Mar. 58	J.G.V.
8	XX.39	<i>Stilophora rhizodes</i>	Cumrae, dredged	Aug. 1857	J.G.V.
8	XXVII.53	<i>Mesogloia virescens</i>	Cumrae	June 57	J.G.V.
8	XXXIV	-	Cumrae	Mar 58	J.G.V.
8	XXXIV	-	Cumrae	Mar. 1858	J.G.V.
9	XXVII.53	-	-	-	-
9	XXVII.55	-	-	-	-
9	XXXVII.98	<i>Odonthalia dentata</i>	South end of Bute	Mar 58	J.G.V.
9	XXXVII.98	- (in fruit)	-	-	-
10	XL.106	-	Cumrae	4.57	J.G.V.
10	XL	-	-	-	-
10	XL.129	<i>Polysiphonia byssoides</i> dredged	Cumrae	Aug. 57	J.G.V.
10	XL.122	- in pencil, <i>nigrescens</i> ?	Cumrae	Feb. 58	J.G.V.
11	XL.114	- (in fruit)	Cumrae	Nov. 57	J.G.V.
11	XL.127	<i>Polysiphonia fastigiata</i>	Cumrae	Aug. 1857	J.G.V.
11	XL.128	<i>Polysiphonia parasitica</i> dredged	I. Cumrae	Aug. 1857	J.G.V.
11	XL.117	-	Cumrae	Oct. 57	J.G.V.
11	XL. -	- (in fruit)	Cumrae	Nov. 57	J.G.V.
11	XL. -	-	Cumrae	Nov. 57	J.G.V.
12	XL.114	<i>Polysiphonia elongata</i>	Cumrae	Nov. 57	J.G.V.
12	XL.122	- (in fruit)	-	-	J.G.V.
13	XLIV	-	-	-	J.G.V.
13	XLIV.140	<i>Chrysmenia clavellosa</i>	Cumrae	Nov. 57	J.G.V.
13	XL.-	-	I. Cumrae	July 58	J.G.V.
14	XLV.142	-	-	-	-

14	XLV.143	<i>Chylocladia kaliformis</i>	Skate Rock, Loch Fyne	Aug 1857	J.G.V.
14	XLV.145	<i>Chylocladia parvula</i>	Cumbræ	Oct. 57	J.G.V.
14	XLV.146	<i>Chylocladia articulata</i>	Cumbræ	Mar. 58	J.G.V.
15	LI.163	-	-	-	-
15	LI.163	-	-	-	-
15	LI.165	<i>Delesseria alata</i>	Cumbræ	5.57	J.G.V.
15	LI.165	<i>Delesseria alata</i>	Portincross	July 1857	J.G.V.
16	LI.167	<i>Delesseria Hypoglossum</i>	Cumbræ	May 57	J.G.V.
16	LI.167	-	-	-	-
16	LI.164	<i>Delesseria sinuosa</i>	Cumbræ	May 57	J.G.V.
16	LI.164	-	-	-	-
17	LII.169	<i>Nitophyllum punctatum</i>	Cumbræ	5.57	J.G.V.
17	LII.169	<i>Nitophyllum punctatum</i> (in fruit)	Cumbræ	5.57	J.G.V.
17	LII.173	<i>Nitophyllum laceratum</i>	Cumbræ	5.57	J.G.V.
17	LII.173	<i>Nitophyllum laceratum</i>	Skate Rock, Loch Fyne	Aug 1857	J.G.V.
18	LV.183	<i>Rhodomenia palmata</i>	Cumbræ	Mar 58	J.G.V.
18	LV.183	-	-	-	-
18	LV.178	<i>Rhodomenia laciniata</i> (in fruit)	Cumbræ	Sep 57	J.G.V.
18	LXIII.200	-	-	-	-
19	LI.164	<i>Delesseria sinuosa</i>	Portincross	Sep 1857	J.G.V.
19	LX.191	<i>Gelidium corneum</i>	Cumbræ	July 1857	J.G.V.
19	LV.177	<i>Rhodomenia bifida</i> dredged	Cumbræ	Sep 57	J.G.V.
19	LXXXIV.246	-	Cumbræ	Nov 57	J.G.V.
19	LXXXVIII.220	<i>Dudresnia</i> - dredged	Cumbræ	Sep 57	J.G.V.
19	LV.177	<i>Rhodomenia bifida</i> dredged (in fruit)	-	Oct 57	J.G.V.
20	LXIII.199	<i>Phyllophora rubens</i>	Cumbræ	Aug 1857	J.G.V.
20	LXXXVI.217	-	-	-	-
20	LXXXII.213	<i>Iridaea edulis</i>	Portincross	1857	J.G.V.
20	LXIX.209	<i>Halymenia ligulata</i> dredged	Cumbræ	Sep 57	J.G.V.
20	XLII.134	<i>Bonnemaisonia asparagoides</i> dredged	Cumbræ	July 1857	J.G.V.
20	LX.191	<i>Gelidium corneum</i>	Portincross	Sep 1857	J.G.V.
21	LXVIII.208	<i>Dumontia filiformis</i>	Cumbræ	Jan 58	J.G.V.
21	LIII.175	<i>Plocamium coccineum</i>	Cumbræ	Mar 57	J.G.V.
21	LXXX.223	<i>Ptilota</i> -	Portincross	July 1857	J.G.V.
21	LXXX.224	-	-	-	J.G.V.
22	LXXXII	<i>Ceramium</i> -	Cumbræ	5.57	J.G.V.
22	[pencil 130]	-	-	-	-
22	LXXXII	-	-	-	-
22	LX.191	<i>Gelidium corneum</i>	Portincross	Sep 1857	J.G.V.
22	LX.191	<i>Gelidium corneum</i>	Cumbræ	Sep 1857	J.G.V.
23	LVIII.189	<i>Hypnea purpurascens</i> (in fruit)	Cumbræ	Sep 1857	J.G.V.
23	LVIII.189	<i>Hypnea purpurascens</i>	Cumbræ	July 1857	J.G.V.
23	LVII.187	<i>Gracilaria confervoides</i> dredged	Cumbræ	Oct 57	J.G.V.
23	LXXXIV.246	<i>Griffithsia setacea</i>	Cumbræ	Mar 57	J.G.V.
24	LXXXVII.271	-	Cumbræ	Nov 57	J.G.V.
24	LXXXVII.249	<i>Callithamnion plumula</i>	Cumbræ	Nov 57	J.G.V.
24	LXXXVII.249	<i>Callithamnion plumula</i>	Cumbræ	Nov 57	J.G.V.
24	LXXXII.226	-	Cumbræ	Nov 57	J.G.V.
25	LXXXVII.273	-	-	-	-
25	LXXXVII.256	<i>Callithamnion Brodicei</i>	-	-	-
25	LXXXVII -	-	-	-	-
25	LXXXVII -	-	-	-	-
25	LXXXVII -	<i>Callithamnion</i> -	-	-	-
25	[blank mount]	-	-	-	-
26	LXXXVII.256	- (in fruit) in pencil Cal: B	-	-	-
26	LXXXVII.249	<i>Callithamnion plumula</i>	Cumbræ dredged	1861	MRTB
26	LXXXVII.274	-	Cumbræ	Nov 57	J.G.V.
26	LXXXII.235	-	-	-	-
26	LXXXVII.263	-	-	-	-
26	LXXXII.236	<i>Callithamnion echionotum</i>	Cumbræ	1856	-
27	LXXXVII -	-	-	-	-
27	LXXXVII -	-	-	-	-
27	LXXXVII.278	<i>Callithamnion daviesii</i>	Portincross	Sept 1857	MRTB

27	LXXXII.235	-	-	-	-
27	LXXXVII.271	-	-	-	-
27	LXXXII.233	-	-	-	-
28	LXXXII	-	-	-	-
28	LXXXII.230	<i>Ceramium diaphanum</i> , fragment of <i>Asperococcus</i>	on Portincross	July 1857	J.G.V.
28	LXXXII.237	-	Cumrae	Jan 58	J.G.V.
28	LXXXII	-	-	-	-
28	LXXXII.230	<i>Ceramium diaphanum</i>	Portincross	Aug 1857	J.G.V.
28	LXXXII	-	-	-	-
29	LXXXIX.284	-	I. Cumrae	July 58	J.G.V.
29	LXXXIX.284	-	I. Cumrae	July 58	J.G.V.
29	XCVI.340	*[damaged]	-	-	-
29	XCVI.340	-	-	-	-
30	XCVI.342	<i>Ulva linza</i>	Portincross	June 57	J.G.V.
30	XCVII.343	<i>Porphyra laciniata</i>	Cumrae	Feb 58	J.G.V.
30	XCVII.344	<i>Porphyra vulgaris</i>	Cumrae, dredged Portincross [sic]	June 57	J.G.V.
30	XCVII.344	<i>Porphyra vulgaris</i>	Cumrae	Jan 58	J.G.V.
31	XCI.297	<i>Cladophora rupestris</i>	I. Cumrae	Aug 1857	J.G.V.
31	-	-	Cumrae	Mar 58	J.G.V.
31	-	-	-	-	-
31	XCI.307	in pencil, <i>Clad ancta</i>	Cumrae	Mar 58	J.G.V.
31	-	-	-	-	-
31	XCI.307	-	Cumrae	Mar 58	J.G.V.
32	XCV.332	<i>Enteromorpha compressa</i> *[mostly missing]	I. Cumrae	Aug 1857	J.G.V.
32	XCI.299	<i>Cladophora flexuosa</i> *[in different hand]	-	-	-
32	XCV.331	-	Cumrae	Feb 58	J.G.V.
32	-	-	Bute, south end	Mar 58	J.G.V.
32	CII.356	in pencil, <i>Calothrix confervicula</i> on <i>Ceramium</i>	Cumrae	Oct 57	J.G.V.
32	XCIII.324	<i>Conferva aerea</i>	Cumrae	June 57	J.G.V.