

New and newly recognised *Taraxacum* (Asteraceae) species from Scottish northern and western isles

John Richards^{1*}, Marion Barlow, Baz Scampion

*Corresponding author: hightreesgarden@btinternet.com

This pdf constitutes the Version of Record published on 28 August 2026.

Abstract

Two new species of *Taraxacum* are described, *T. marionae* A.J.Richards (section *Spectabilia* Dahlst.) from Shetland, and *T. vatersayi* A.J.Richards (section *Celtica* A.J.Richards) from the Outer Hebrides. *T. acrifolium* Dahlst. (section *Naevosa* M.P.Christ.) has been rediscovered and the name revived. There is a short introduction to endemism in apomictic species in Scottish islands.

Key words:

Shetland; Outer Hebrides; endemic; section *Celtica*; section *Spectabilia*; section *Naevosa*

Introduction

About 245 *Taraxacum* agamospecies have been reported from the British Isles (Richards, 2021), of which about 50 are endemic. Most of the endemic species are classified in section *Celtica* A.J.Richards and are found on the mainlands of Britain and Ireland where many are widespread. However, three species classified in section *Spectabilia* and one classified in section *Naevosa* are endemic to Shetland, and another *Spectabilia* species is only known on St. Kilda. Two species in section *Celtica* are endemic to Orkney. However, it is noteworthy that three species formerly thought to be Orkney endemics (*T. rufofructum* A.J.Richards, *T. calophyllum* Dahlst. and *T. tanylepis* Dahlst.) are now known from other northern British shores. Also, *T. tanylepis* has proved to be the correct name for *T. dahlii* Dahlst. from southern Scandinavia.

Although an impressive number, the British total of seven endemic *Taraxacum* species from our northern islands compares poorly with that for another apomictic genus, *Hieracium*, which numbers no less than 18 species endemic to Shetland alone (Scott, 2011). In the latter genus, it seems likely that one or more original founders colonised Shetland post-glacially and then proceeded to colonise remote and disjunct areas where founder effects of different mutant lines resulted in rapid 'speciation' (it is worth noting that different *Hieracium* agamospecies frequently differ by very small, although consistent, morphological changes; the same can be said for endemic Shetland *Taraxacum* too).

It is likely that *Taraxacum* section *Spectabilia* species are high polyploids (*T. faeroense* (Dahlst.) is pentaploid, $2n=40$, Richards, 2021) and thus relatively tolerant of mutation by chromosome loss. Such mutations might result in relatively minor morphological changes, and the possibility that distinctions between species may not always be clear cut.

The study of *Taraxacum* in Shetland originated with the Orcadian Henry Halcro Johnston who collected abundant but poorly preserved material from both archipelagos in the 1920s. This was sent to G.C. Druce, who forwarded it to the Swedish authority Hugo Dahlstedt, and later, Johnston worked directly with Dahlstedt. The results from Orkney were published by Johnston (1926, 1929) but later reported extensively by Druce in *Reports of the Botanical Exchange Club*.

Further studies were made by Shetland inhabitant Walter Scott and his friend the Oxford lexicographer and philologist Richard Palmer from the 1970s. They unearthed the obscure publication by W.H. Beeby of *Taraxacum geirhildae* (Beeby) W.Scott & T.C.G.Rich and later visited the type locality of this rather inaccessible species. Following their collections, *T. serpenticola* A.J.Richards was described from Unst, and Scott later published a third Shetland endemic section *Spectabilia* species, *T. palmeri* Scott & Rich.

More recently, visits have been made by several Taraxacologists, but the outstanding recent contributions to the Shetland *Taraxacum* flora have been by Marion Barlow (MB) and Baz Scampion (BS) who each visited Shetland independently several times, visiting all the major islands, and have photographed in detail many hundreds of specimens which have been reviewed by John Richards (AJR).

Taraxacum marionae

T. palmeri is readily recognised amongst species classified in *Taraxacum* section *Spectabilia* by the narrow appressed exterior bracts with ciliate margins, rather long narrow ligules with a dark peach stripe and carmine tips, and the stigmas are very dark or even blackish. Material photographed at Levenwick, Mainland, Shetland (HU410211) by MB on 14 May 2024, and subsequently at other Mainland sites closely resembled *T. palmeri* in many ways, with very similar involucre, but were immediately distinguished by yellowish stigmas and crisped, very hairy leaves. The ligules were shorter and broader than in *T. palmeri* resulting in a noticeably smaller capitulum. The ligule stripes were peach-coloured, somewhat paler than in *T. palmeri* and the tips of inner ligules were pink, not carmine as in the latter.

Similar plants which differ consistently from *T. palmeri* by this suite of characters (except leaf hairiness) have now been found in at least seven localities in hectads HU24, HU42 and HU43 on Mainland and a single site on Unst (HP50) and are here named *T. marionae* after the finder. Although the habitat seems not to differ noticeably between *T. marionae* and *T. palmeri*, so far the two species seem not to co-exist, although their distributions overlap. The habitat is open sites usually near the sea in wet heathy grassland at low altitude.

Taraxacum marionae A.J.Richards sp. nov.

TYPE: Shetland Islands, Mainland, Elvister Road End, HU23312 49588, 23 May 2025, M. Barlow B708 (holotype **E01278948** and **E01278949**).

Plant small to medium-sized, prostrate, forming a dense rosette of crisped, cucullate, homophyllous leaves. Leaves dull green, narrowly lanceolate, mostly unspotted, densely furnished with white bristly hairs above, mid-rib purple, becoming greenish distally; petioles short, winged or with short lobules, purple. Leaves unlobed or with 1–3 short, broad, recurved, acuminate lobes. Scapes prostrate to ascending, equalling leaves, pink, glabrous distally but sometimes with crisped hairs proximally. Exterior bracts 7 x 1.5–2 mm, appressed, unbordered,

ciliate, suffused purplish distally or greenish-purple throughout. Capitula small, 25–30 mm diameter, yellow. Ligules short with a broad peach-coloured stripe and pinkish teeth. Stigmas clear yellow when fresh, drying slightly discoloured; pollen absent. Achenes unknown.

T. marionae is a rather typical member of section *Spectabilia*, most closely related to *T. palmeri*. Both BS and MB note that whereas the leaves of *T. marionae* are always rather thickly bristly above, those of *T. palmeri* vary considerably in hairiness in accord with the local environment, so that leaf hairiness should not be used as a discriminant (Figs. 1-7).



Figure 1. *Taraxacum marionae*, capitulum. Elvister Road, Walls, Shetland. 24 May 2024. Image: Marion Barlow.



Figure 2. *Taraxacum marionae*, involucres. Elvister Road, Walls, Shetland. 24 May 2024. Image: Marion Barlow.



Figure 3. *Taraxacum marionae*, leaves. Elvister Road, Walls, Shetland. 24 May 2024. Image: Marion Barlow.



**Figure 4. *Taraxacum marionae*. Elvister Road, Walls, Shetland. 24 May 2024.
Image: Marion Barlow.**



**Figure 5. *Taraxacum marionae*. Elvister Road, Walls, Shetland. 24 May 2024.
Image: Marion Barlow.**



**Figure 6. *Taraxacum marionae*. Elvister Road, Walls, Shetland. 24 May 2024.
Image: Marion Barlow.**



Figure 7. *Taraxacum marionae*. Holotype.

Taraxacum acrifolium

On 12 May 2024, MB photographed a distinctive dandelion from the Maywick road, Mainland, Shetland (HU3784423668), with many narrow rather hairy prostrate leaves, arrow-shaped leaf-lobes and a few small dark spots. This somewhat resembled the Shetland endemic *T. hirsutissimum* C.C.Haw., but with erect rather than recurved exterior bracts. AJR recognised this plant as *T. acrifolium*, previously known from a single copious but poorly preserved collection of 13 specimens by H.H. Johnston (116) on 30 June 1927 from Borough Lodge, Fetlar, Shetland. Dahlstedt, quoted in Johnston (1928) and Dahlstedt (1929) likened the material to *T. naevosiforme* Dahlst. (widespread in northern Britain) and *T. adpressum* Dahlst. (a Swedish endemic) but considered the leaf-shape to be different.

T. acrifolium was included in the first account of British *Taraxacum* (Richards, 1972) but was considered *nom. dub.* by Haworth & Richards (1990) (lectotypified there, E 00746403, 04 also 00265202-05) and Dudman & Richards (1997), possibly synonymous with *T. naevosiforme*. Material resembling *T. acrifolium* was not rediscovered until 2024, and this, compounded by the poor state of Johnston's material, had prompted uncertainty as to the true status of *T. acrifolium*.

The following description is our translation of Dahlstedt's Latin.

Taraxacum acrifolium H.Dahlstedt. In: *Rep. Botl. Soc. Exch. Club Br. Isl.* for 1928, 8: 621 (1929).

Leaves dark green, with dark purple spots on the upper surface, paler below, ascending, linear-oblong, distantly lobed, the lobes short and broad, triangular-deltoid with a short to somewhat elongate, patent to hamate apex; terminal leaf-lobes triangular-sagittate, elongate, +/- entire, acute, narrow to somewhat broad; petioles pale violet, mid-ribs dark violet. Scapes shorter than the leaves, subglabrous. Involucre medium-sized, dark green, the base ovate. Exterior bracts narrow, ascending, underneath +/- pruinose, the margins narrowly bordered and recurved, interior bracts linear, apex coloured. Capitulum 30–35 mm diameter, apparently flat; ligules narrow, yellow, with dark brown-purple stripes. Pollen absent; style and stigma dark yellow. Achenes unknown.

To this description we would add that the upper surface of the leaves is roughly hairy, not as hairy as for *T. hirsutissimum*, but hairs denser and longer than is typical for *T. naevosiforme*. Some sparse small spots can usually be discerned on the upper surface of the leaves under magnification, but they can sometimes be difficult to find. The exterior bracts dimensions are 9–10 x 2–3 mm. The achenes are straw-coloured, body 3.8 mm, cone 0.4 mm, shortly spinulose distally, rugose centrally and smooth proximally, rostrum 6 mm.

T. acrifolium is now known from hectads HU30, HU32, HU33, HU35 and HU44 on Mainland, Shetland. It has yet to be rediscovered at its type locality on Fetlar. It is most closely related to *T. hirsutissimum*, but that species is hairier, has recurved exterior bracts and broader leaves with longer lobes. *T. hirsutissimum* is classified in section *Naevosa* M.P.Christiansen, and this is probably the best position for *T. acrifolium* although the bracts are more erect than is typical for plants placed there (Figs. 8-12).



Figure 8. Achenes of *Taraxacum acrifolium*. Burn of Lunklet, Bixter, Shetland. 18 May 2024. Image: Marion Barlow.



**Figure 9. *T. Taraxacum acrifolium*. Bridge End, Trondra, Shetland. 13 May 2024.
Image: Marion Barlow.**



Figure 10. *Taraxacum acrifolium*, flowering heads. Bridge End, Trondra, Shetland. 13 May 2024. Image: Marion Barlow.



Figure 11. *Taraxacum acrifolium* leaf, showing spotting. Bridge End, Trondra, Shetland. 13 May 2024. Image: Marion Barlow.

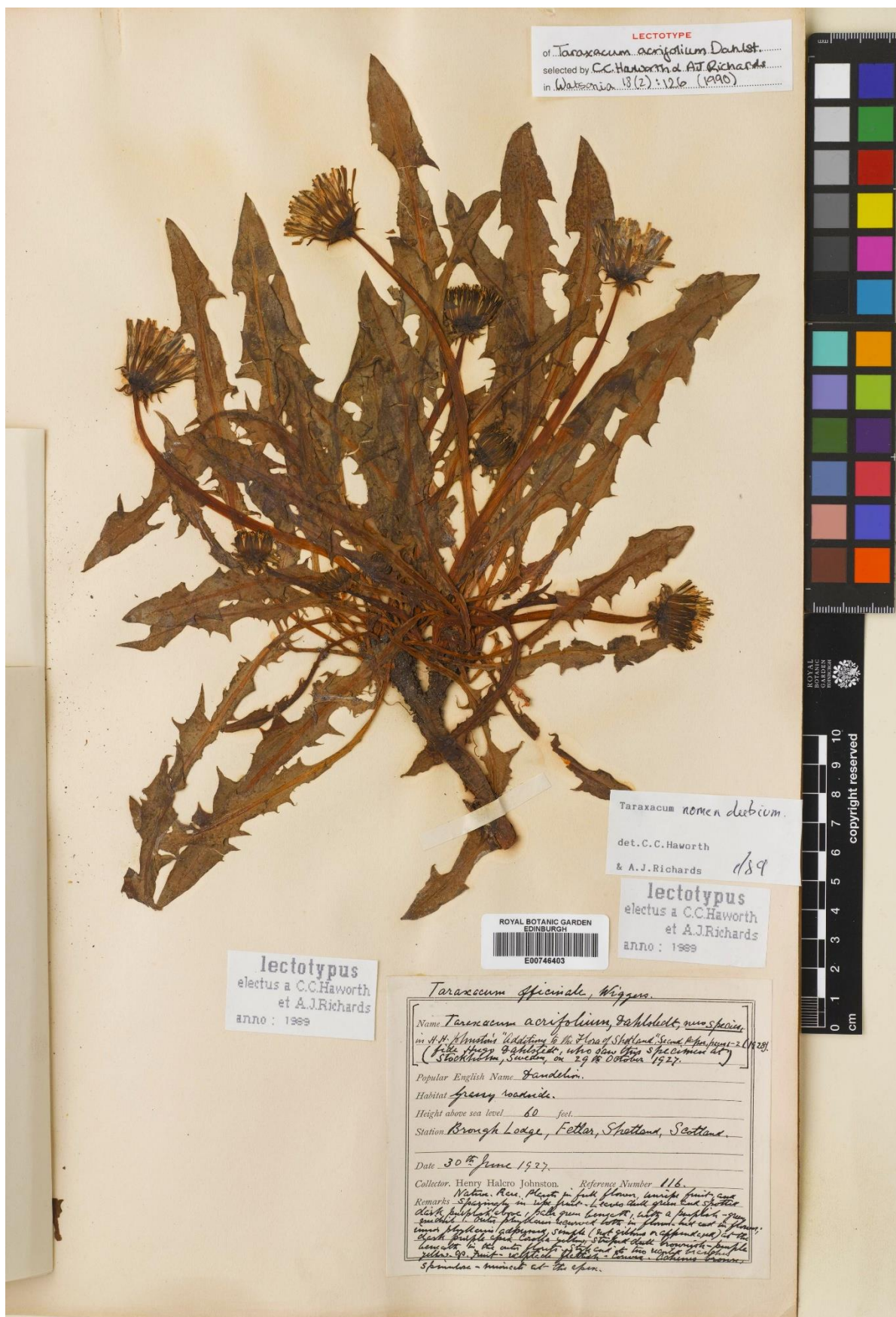


Figure 12. *Taraxacum acrifolium*. Lectotype stored at E.

Taraxacum vatersayi

Vatersay is the southernmost inhabited island of the Outer Hebrides. It lies to the south of Barra to which it is connected by a short causeway. Vatersay has several bays of white shell-sand, including an isthmus of machair at the centre of the island so that the island is shaped like an H laid sideways. There is a small bay on the north-west arm called Traigh Bharlais, and this was visited by the late Richard Pankhurst on 24 May 2005, and again in April 2009. Here he collected and photographed a distinctive dandelion with narrowly oblong, crisped leaves, erect bracts and reddish achenes (E01530859).

When material was sent to AJR early in 2006, he wrote '*I have no idea what this is. It has small rufous achenes, erect bracts and is a highly stressed form. Collect and grow on!*' On return, Pankhurst added the note on 2 February 2006 '*in spite of John's (AJR) remarks about 'highly stressed form' the specimen came from a colony of distinctive plants all growing in a fairly natural habitat (see photos)*'.

AJR's point had been that pure shell-sand as a substrate might considerably modify a phenotype, not that the material should be ignored. Nevertheless, Pankhurst then sent the material to the Danish authority Hans Ollgaard who returned it with the following note:

'This must be T. calophyllum Dahlst. I only have a photo of the specimen (Johnston 4211) in S marked 'Typus'. The description matches very well. The lectotype is in E. I regard it different from T. stictophyllum (many differences). Probably sect. Macrodonia. The red achenes are 'new to science'.'

At that juncture, *T. calophyllum*, described from Orkney, was little understood. However, it seemed to AJR that the Vatersay plant differed from the description of *T. calophyllum* in several regards, not least the distinctive reddish achenes. Ollgaard's comment motivated AJR to visit Orkney (Richards & Ferguson-Smyth, 2016) where we refound *T. calophyllum* at its type locality. It is now known elsewhere (qv) and is understood much better, probably related to *T. vatersayi*, but differing in several particulars.

More material was collected from the same location by Claudia Ferguson-Smyth in 2014 (CF-S 14/63, E01530858).

More recently, AJR suggested to Paul Smith that he visit Vatersay, so that Pankhurst's discovery could be re-collected, photographed and sought for elsewhere. These visits were made on 5 and 7 May 2024. Smith's report follows:

'Taraxacum PAS09-2024 was identified by AJR as 'non-calophyllum'. Revisiting the location of this collection (NF6192197283), in mobile sand, gives an associated species list:

Calystegia soldanella (abundant)

Cochlearia danica (abundant)

Lotus corniculatus (occasional)

Plantago lanceolata (frequent)

Tripleurospermum maritimum (occasional)

I found it really difficult to assess population size – there are many Taraxacum individuals at the site, but only a minority have the right kind of characteristics, and it's hard to say which are 'non-calophyllum'. My best guess is that I saw about 10 individuals, so I would say it is scarce; but someone with more skills and time may find more. I didn't find any individuals away from the bare sand area but did find

one on the south side of the burn (NL6209397105) away from the *Calystegia soldanella* area.'

In 2025, Paul Smith collected comparable material from the same habitat of pure shell-sand from Dail Mor, Lewis (NB214474502), some 60 km north in the Outer Hebrides. It seems likely that it occurs elsewhere in this habitat, at least in the Hebrides, and should be sought for.

Taraxacum vatersayi A.J.Richards sp. nov.

TYPE: Outer Hebrides, Vatersay, Traigh Bharlais, NL61921 97283, 5 May 2024, P.A. Smith PAS09/2024 (holotype **E01530861**; isotypes **BM, OXF**).

Plant medium-sized with prostrate, crisped, cucullate, homophyllous leaves. Leaves dull green, narrowly oblanceolate, unmarked, hairy on mid-rib only; mid-rib pinkish-green, greener distally; petioles narrowly winged, pink. Lateral leaf-lobes 4–7, short, regular, hamate, entire, acute, interlobes with 1–3 lobules. Terminal leaf-lobe short, triangular, subobtusate. Scapes equalling leaves, suberect, hairy distally, pink. Exterior bracts 9 x 2 mm, suberect to spreading, sigmoid, densely furnished, pale green becoming dull purple above, greenish purple beneath, unbordered. Capitula 35 mm diameter, yellow. Ligules striped pinkish-grey with darker teeth. Stigmas discoloured, pollen present. Achene body 3.2 mm, chestnut-red, mostly smooth with stout spinules distally, cone 0.4 mm.

Superficially similar to *T. calophyllum* (section *Celtica*), but with neater more regular leaf-lobes and a crowded involucre of narrow acute bracts. Diagnostically, the achenes are reddish. *T. vatersayi* seems to have no close relatives and takes a rather isolated position in the section. As yet it is only known from a single, remote, site (Figs. 13–18).



Figure 13. *Taraxacum vatersayi* capitulum. Vatersay. 5 May 2024. Image: P.A. Smith.



Figure 14. *Taraxacum vatersayi*. Vatersay. 5 May 2024. Image: P.A. Smith.



Figure 15. *Taraxacum vatersayi* achene. Image: R.J. Pankhurst.



Figure 16. *Taraxacum vatersayi*. In situ with *Cochlearia danica*. Vatersay. 5 May 2024. Image: P.A. Smith.



Figure 17. *Taraxacum vatersayi*. In situ with *Calystegia soldanella*. Vatersay. 5 May 2024. Image: P.A. Smith.



Figure 18. *Taraxacum vatersayi* holotype stored at E.

Acknowledgements

We are grateful to Claudia Ferguson-Smyth for information concerning H.H. Johnston, to Paul Smith for information concerning *T. vatersayi*, and to Jon Holt and Tim Rich for critical comments on the manuscript and knowledge of Shetland *Taraxacum*.

References

- Dahlstedt, H. 1929. *Taraxacum acrifolium* Dahlstedt. In: G.C. Druce, ed. Plant Notes etc for 1928. *Report of the Botanical Exchange Club of the British Isles*, 9:608–641.
- Dudman, A. & Richards, A.J. 1997. *Dandelions of Great Britain and Ireland*. BSBI Handbook No. 9. London: Botanical Society of the British Isles.
- Haworth, C.C. & Richards, A.J. 1990. The lectotypification and typification of Dahlstedt's species of *Taraxacum* Weber based on British and Irish plants. [Watsonia 18:125–130](#).
- Johnston, H.H. 1926. Additions to the Flora of Orkney 9. *Transactions and Proceedings of the Botanical Society of Edinburgh* 29:297–307.
- Johnston, H.H. 1929. *Additions to the Flora of Orkney* 13:7–8. Privately published.
- Richards, A.J. 1972. The *Taraxacum* flora of the British Isles. [Watsonia 9 \(supplement\):1–141](#).
- Richards, A.J. 2021. *Field Handbook to British and Irish Dandelions*. BSBI Handbook No. 23. Durham: Botanical Society of Britain and Ireland.
- Richards, A.J. & Ferguson-Smyth, C.C. 2016. Notes on the *Taraxacum* (Asteraceae) Flora of the Orkney Isles (VC111). [New Journal of Botany 6:71–78](#).
- Scott, W. 2011. *Some aspects of botany of the Shetland Islands*. Scalloway: Privately published.

Copyright retained by author(s). Published by BSBI under the terms of the [Creative Commons Attribution 4.0 International Public License](#).

ISSN: 2632-4970

<https://doi.org/10.33928/bib.2026.08.233>