14 Lvs up to 3cm wide, elliptical, ovate, elliptical-oblong or lanceolate ..... **28. H. trichocaulon** (Dahlst.) Johanss NAT (R, HA/SX/SY/BE/WI/DO) [6-7(-9)]

14 Lvs up to 2cm wide, narrowly elliptical, lanceolate or linear-lanceolate .....**29. H. calcaricola** (F. Hanb.) Roffey NAT (R, HA/SX/SY/BE/DO) [7-8]

15 (13) Involucral bracts up to 10mm.**25. H. eboracense** Pugsley NAT (R, HA/SY/WI/DO) [7-9]

15 Longest involucral bracts >10mm 16

16 Lvs elliptical, equally tapered at both ends, broadest in the middle and with fine, sharp or spinulose teeth up to 6mm.....**7. H. argutifolium** Pugsley ?NAT (RR, SY) [6-9]

16 Lvs mostly broadest below middle and teeth sometimes sharp but not spinulose 17

17 Involucral bracts with broad pale margins ..... **10. H. dumosum** Jord. ?INT (RRR, ?HA) [7-9]

17 Involucral bracts blackish-green and nearly concolorous .....**8. H. sabaudum** L. NAT (C, HA/SX/SY/BE//WI/DO) [7-10]

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18 (1) Lvs with numerous obvious medium, stout glandular hairs .....**71-73**. **Sect. Amplexicaulia** VERY RARE GARDEN ESCAPES [6-8]

18 Lvs without glandular hairs or with few to fairly numerous very short or minute glandular hairs 19

19 Some of the hairs on the plant plumose 20

19 None of the hairs on the plant plumose, but they may be denticulate 21

20 Lvs spotted, blotched and marbled with brownish-purplish colour, with large mammiform teeth.....**154. H. rionii** Gremli VERY RARE GARDEN ESCAPE [5-6 & 9-10]

20 Lvs not spotted, blotched or marbled, entire or denticulate .....**155. H. lanatum** Vill. VERY RARE GARDEN ESCAPE [6-7]

21 Whole plant with long dense simple eglandular hairs, without glandular hairs; stem lvs 3-6, semi-amplexicaul .....**156. H. pilosum** Schleich. ex Froel. INT (RRR) [7-8]

21 Not as above 22

22 Lvs with rigid hairs on the margin, and glabrous or with a few scattered hairs on upper surface; infl with 2-10 capitula on usu. long, straight peduncles; involucral bracts narrowly linear-lanceolate, 4-11 x 1.0-1.2mm ..... **184. H. angustisquamum** (Pugsley) Pugsley NAT (RR, SX) [5-7]

22 Not as above 23

23 Stem lvs >5; involucral bracts with numerous glandular hairs and no or few simple eglandular hairs..... 24

23 Stem lvs ≤5; involucral bracts with or without glandular and/or eglandular hairs..... 27

24 Involucral bracts obtuse at apex, without, or with few, stellate hairs ..... **317. H. festinum** ?INT (RRR, SY) [6-8]

24 Involucral bracts acute at apex, with numerous to dense stellate hairs 25

25 Many lvs 3-4x as long as broad..... **263. H. vulgatum** Fr. NAT (C, HA/SX/SY/DO) [6-8]

25 Lvs ≤3x as long as broad..... 26

26 Lvs denticulate to shortly dentate; involuctral bracts up to 13mm ..... **310. H. argillaceum** Jord. ?INT (CC, HA/SX/SY/BE/WI/DO) [6-8]

26 Lvs dentate to incise-dentate; involucral bracts <11mm .....**308. H. consociatum** Jord. ex Boreau ?INT (R, SX/SY/WI) [6-8]

27 (23) Stem lvs 2-5..... 28

27 Stem lvs 0-1, rarely 2 51

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28 Involucral bracts with numerous simple eglandular hairs..... 29

28 Involucral bracts with few or no simple eglandular hairs 34

29 Involucral bracts with numerous to dense stellate hairs 30

29 Involucral bracts with few or no stellate hairs..... 31

30 Involucral bracts obtuse at apex, with numerous glandular hairs ..... **284. H. lepidulum** INT (RR, HA/SY) [5-7]

30 Involucral bracts acute at apex, with few or no glandular hairs ..... **263. H. vulgatum** Fr. NAT (C, HA/SX/SY/DO) [6-8]

31 (29) Involucral bracts with numerous glandular hairs..... 32

31 Involucral bracts with few glandular hairs..... 33

32 Involucral bracts linear-lanceolate, (sub)acute at apex; styles discoloured .....**285. H. subviolascens** P. D. Sell INT (RRR) [5-7]

32 Involucral bracts oblong-lanceolate, obtuse at apex; styles yellow to slightly discoloured .....**305. H. megapodium** Dahlst. ?NAT (RRR, SX) [6-7]

33 (31) Lvs faintly spotted and blotched; involucral bracts ±acute at apex ..... **268. H. pollichiae** Sch. Bip. NAT (RR, HA/SX/SY/BE) [6-7]

33 Lvs not spotted or blotched; involucral bracts obtuse at apex .....**286. H. surrejanum** F. Hanb. NAT (RRR, SX/SY) [5-6]

34 (28) Involucral bracts with numerous stellate hairs 35

34 Involucral bracts with few or no stellate hairs..... 41

35 Lvs spotted and blotched with brownish-purple; involucral bracts acute or obtuse at apex 36

35 Lvs not spotted and blotched but sometimes washed with purple; involucral bracts acute at apex 38

36 Involucral bracts acute at apex ..... **294. H. spilophaeum** Jord. ex Boreau ..... ?INT (R, HA/SX/SY/BE/WI/DO) [5-7]

36 Involucral bracts obtuse at apex 37

37 Peduncles without, or with rare, glandular hairs; styles discoloured ..... **292. H. asperatum** Jord. ex Boreau ?INT (RR, SY) [5-7]

37 Peduncles with numerous glandular hairs ; styles yellow ..... **293. H. fictum** Jord. ex Boreau ?INT (RRR, WI) [5-7]

38 (35) Lvs with small sharp teeth..... **313. H. aviicola** Jord. ex Boreau ?INT (R, SY)

38 Lvs with teeth ±mammiform 39

39 Lvs 2.5-6.0 x 1.5-2.0cm ..... **312. H. nemophilum** Jord. ex Boreau NAT (R, SY/WI)

39 Lvs 5-12 x 2-5cm..... 40

40 Lvs mainly ovate or elliptical-ovate; involucral bracts up to 10mm .....**308. H. consociatum** Jord. ex Boreau ?INT (R, SX/SY/WI) [6-8]

40 Lvs mainly elliptical or oblong-elliptical; involucral bracts up to 13mm ..... **310. H. argillaceum** Jord. ?INT (CC, HA/SX/SY/BE/WI/DO) [6-8]

41 (34)	Involucral bracts obtuse at apex	42
41	Involucral bracts acute at apex	47
42	Glandular hairs of involucral bracts short and very short, without medium glandular hairs	43
42	At least some of the glandular hairs of the involucral bracts medium in length	46
43	Lvs 1.5-2.5cm wide	**298. H. diaphanum** Fr. ?INT (RR, SY) [6-7]
43	Lvs 2-4cm wide	44
44	Lf-teeth large and mammiform	**296. H. mammidens** P. D. Sell ?NAT (RRR, HA/SX) [5-6]
44	Lf-teeth small and not mammiform	45
45	Lvs long-attenuate at the base with long petioles, undulate-dentate; styles yellow	**305. H. megapodium** Dahlst. ?NAT (RRR, SX) [6-7]
45	Lvs cuneate at base to a short petiole, more sharply toothed; styles discoloured	**317. H. festinum** ?INT (RRR, SY) [6-8]
46 (42)	Lvs entire to denticulate	**290. H. inquinatum** Jord. ex Boreau ?INT (RRR, HA) [5-7]
46	Lvs dentate	**304. H. diaphanoides** Lindeb. ?NAT(R, HA) [6-7]
47 (41)	Some of the glandular hairs on the involucral bracts medium in length	48
47	Glandular hairs on involucral bracts all short or very short	49
48	Lvs often suffused reddish; glands of involucral bracts thin but stiff	**287. H. erubescens** Jord. ex Boreau INT (RR, SX/SY/BE) [5-7]
48	Lvs usu. green ; glands of involucral bracts thin and spidery	**303. H. anglorum** (Ley) Pugsley NAT (O, HA/SY/BE) [6-7]
49	Lvs spotted, 4-5 x 1.0-1.5cm	**288. H. commixtum** Jord. : ?NAT (RRR) [5-6]
49	Lvs not spotted, 2-11 x 1-5cm	50
50	Basal lvs 5-11 x 2-5cm, lower stem lvs as large as basal, subentire to shortly dentate	**311. H. chlorophyllum** Jord. ex Boreau ?NAT (RRR) [6-7]
50	Basal lvs 2-9 x 1-4cm, denticulate to dentate	**318. H. cheriense** Jord. ex Boreau ?INT (R, HA/SY/BE) [6-8]

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51 (27)	Involucral bracts with numerous simple eglandular hairs (also with numerous glandular hairs, few or no stellate hairs; lvs usua. spotted or blotched)	**365. H. scotostictum** Hyl. INT (R, HA/SX/SY/WI/DO) [5-7]
51	Involucral bracts with no or few simple eglandular hairs	52
52	Involucral bracts with numerous to dense stellate hairs	53
52	Involucral bracts with few or no stellate hairs	58
53	Involucral bracts obtuse at apex	**395. H. cardiophyllum** (Jord. ex Sudre) Juxip INT (RRR) [5-7]
53	Involucral bract acute at apex	54
54	At least the stem lvs with numerous to dense stellate hairs beneath	**385. H. kentii** P. D. Sell ?NAT (RR, SX/SY) [5-6]
54	Lvs without or with occasional stellate hairs	55
55	Lvs with large narrowly mammiform teeth.	**384. H. aterrimum** Hyl. INT (RR, SY) [5-7]
55	Lvs without mammiform teeth or rarely with small mammiform teeth	56

1	Stem leaves >12; basal lvs usu. absent, rarely forming a rosette, sometimes forming a false rosette	2
1	Stem leaves <12; basal lvs present or not	18

2	Involucral bracts ±glabrous or with an occasional glandular and/or eglandular hair	3
2	Involucral bracts with ±numerous microglandular and glandular, and/or eglandular, hairs	8
3	At least some lf teeth >5mm	4
3	Lf teeth ≤5mm	5
4	Lvs lanceolate to ovate or oblong-lanceolate, deeply laciniate	**4. H. prominentidens** P. D. Sell NAT (RR, SY) [8-9]
4	Lvs linear to oblong, with distant, long, curved teeth	**11. H. umbellatum** L. NAT (F, HA/SX/SY/ BE/WI/DO) [7-9][1]
5 (3)	Many lvs ±ovate	6
5	Lvs longer, being oblong, linear or elliptical-oblong	7
6	Infl ±umbellate	**11. H. umbellatum** L. NAT (F, HA/SX/SY/BE/WI/DO) [7-9][1]
6	Infl paniculate	**1. H. vagum** Jord. ?NAT (C, HA/WI) [7-10]
7	Lvs bluish-green, with margins not recurved; infl paniculate, not umbellate	**3. H. salticola** (Sudre) P. D. Sell & C. West ?NAT (O, HA/SY/BE) [8-10]
7	Lvs variously light or dark green, with margins not recurved; infl ±umbellate	**11. H. umbellatum** L. NAT (F, HA/SX/SY/ BE/WI/DO) [7-9][1]
8 (2)	Involucral bracts with ±numerous glandular hairs or microglands, without or with very occasional simple eglandular hairs	9
8	Involucral bracts with numerous glandular hairs and ±numerous simple eglandular hairs	11
9	Lvs long attenuate at base	**5. H. virgultorum** Jord. ?NAT (R, SX/SY/BE) [8-10]
9	Lvs rounded or shortly narrowed at base	10
10	Lvs dark green, sharply serrate or serrulate; infl often in a narrow panicle; involucral bracts with numerous very short to short, unequal, glandular hairs	**2. H. rigens** Jord. NAT (RR, HA/SX/SY/WI) [8-10]
10	Lvs mid to dark green, less sharply toothed; infl a spreading corymbose panicle; involucral bracts with numerous to dense glandular hairs and microglands	**8. H. sabaudum** L. NAT (C, HA/SX/SY/BE/WI/DO) [7-10]
11 (8)	Lf-teeth blunt and ±mammiform; involucral bracts without stellate hairs	**26. H. cantianum** F. Hanb. NAT (RRR, HA/SX/SY) [6-8]
11	Lf-teeth pointed and not mammiform	12
12 (10)	Lvs long lanceolate, oblong-lanceolate or narrowly elliptic-oblong, attenuate at both ends	**6. H. salicetorum** Sudre ?NAT (RRR, SY) [7-8]
12	Lvs broader and not so attenutate, particularly at the base	13
13	Margins of receptacle pits subulate-dentate	14
13	Margins of receptacle pits fimbriate-dentate	15

[1] Forms found in central Southern England have recurved outer involucral bracts

KEY TO *HIERACIUM* SPECIES OF HAMPSHIRE AND NEIGHBOURING COUNTIES

Constructed from Sell, P. D. & Murrell, G. (2006): *Flora of Great Britain and Ireland*, Vol. 4: *Campanulaceae – Asteraceaceae*, Cambridge. The key should always be used in conjunction with the full species accounts given in that volume for a reliable identification.

The key includes all those species known to have been recorded in Hampshire, those not recorded in Hampshire but recorded in a neighbouring county, and those not recorded in Hampshire or a neighbouring county but whose known distribution suggests that they might occur (this last group excludes some very rare casuals known from one or two sites). Issue 2 incorporates revisions to distribution details from McCosh, D. & Rich, T.G.C. (2011): *Atlas of British and Irish Hawkweeds*, BSBI, London, and includes several extra species now confirmed as within Hampshire or neighbouring counties. *H. acamptum*, a long-extinct species only ever found in one site outside Hampshire, has been removed.

The status description is included to give some indication of the likelihood of encountering a species, given current knowledge.

NAT	Native
INT	Introduced

The frequency status refers to the national distribution, where 'recent' is from 1987 onwards:

RRR	0-3 known recent sites or 10km grid squares
RR	4-15 known recent grid squares
R	15-100 known recent grid squares
O	101-250 known recent grid squares
F	251-500 known recent grid squares
C	501-1000 known recent grid squares
CC	1001-2000 known recent grid squares
CCC	2000+ known recent grid squares
??	No quantitative measure of frequency

This is followed by a note of neigbouring counties in which the species is known to occur, as follows:

BE	Berkshire
DO	Dorset
HA	Hampshire
SX	Sussex
SY	Surrey
WI	Wiltshire

Expected flowering months are shown in square brackets. Specimens may be found flowering outside those periods, and it will often be difficult or impossible to determine either these or specimens flowering late within their stated period.

56 Lvs subentire or denticulate ..... **398. H. microspilum** (Jord. ex Sudre) A. W. Hill ?INT (RRR, SY) [5-7]

56 Lvs shallowly to fairly deeply dentate 57

57 Lvs ovate, lanceolate or elliptical; stem lvs 0-1; involucral bracts ±acute at apex; styles discoloured ... **394. H. sublepistoides** (Zahn) Druce INT (R, HA/SX/SY/BE/WI/DO) [5-7]

57 Lvs mostly broadly triangular-ovate; stem lvs 1-2; involucral bracts with a long, narrow, acute apex; styles yellow to slightly discoloured ..... **397. H. sylvivagum** Jord. ex Boreau INT (RR, HA/SY) [5-7]

58 (52) Involucral bracts usu. with a few simple eglandular hairs ..... **369. H. liljeholmii** Dahlst. INT (RRR) [5-6]

58 Involucral bracts without simple eglandular hairs 59

59 Lvs with large mammiform teeth 60

59 Lvs entire or with small teeth 63

60 Lvs ovate or elliptic-ovate 61

60 At least the inner lvs oblong, elliptic-oblong or lanceolate-oblong 62

61 Involucral bracts 4-12 x 1.0-1.2mm; styles discoloured ..... **374. H. sylvularum** Jord. ex Boreau INT (RR, SY) [5-7]

61 Involucral bracts 4-10 x 0.8-1.0mm ; styles yellow ..... **383. H. koehleri** Dahlst. INT (RR, SY) [5-7]

62 (60) Lvs very large, 9-16 x 4-7cm, teeth very large ..... **379. H. seriflorum** Hyl. INT (RR, SY) [5-7]

62 Lvs smaller, 3-11 x 2.5-4.0cm ..... **373. H. grandidens** Dahlst. INT (O, HA/SX/SY/BE/WI) [5-7]

63 (59) Styles discoloured 64

63 Styles yellow 65

64 At least some lvs oblong or oblong-lanceolate ..... **399. H. oblongum** Jord. INT (RR, HA) [5-7]

64 No lvs oblong or oblong-lanceolate ..... **401. H. pellucidum** Laest. ?INT (R, BE) [5-7]

65 (63) Lvs sharply serrate-dentate ..... **396. H. severiceps** Wiinst. INT (RR, SX) [5-7]

65 Lvs not sharply serrate-dentate 66

66 Involucral bracts up to 13mm ..... **389. H. glevense** (Pugsley) P.D. Sell & C. West ?INT (R, BE) [5-7]

66 Involucral bracts not more than 11mm 67

67 Involucral bracts narrow linear-lanceolate, 0.8-1.0mm ..... **402. H. exotericum** Jord. ex Boreau ?INT (R, HA/SX/SY/BE/WI) [5-7]

67 Involucral bracts linear-lanceolate, 1.0-1.2mm wide ..... **403. H. neosparsum** (Zahn) P. D. Sell INT (RR, SX) [5-7]

A Reduced Key for *Hieracium* (Hawkweeds) in Hampshire and Nearby Counties

Martin Rand

In Sell & Murrell (2006), Peter Sell has given us an up to date work on this difficult critical genus that is both comprehensive and encyclopaedic – every taxon is keyed out, then described in full detail.

The identification key in this work is a serious challenge to ordinary mortals mostly living and recording in the South. (In a masterpiece of understatement Sell comments "To make a key to 412 species of *Hieracium* is very difficult"!) There are 500 key couplets, many of which lead to northern and montane species that will never be recorded here. With a bit of experience one learns to skip certain sections of the key, but the way in which it is laid out does not always make this easy, and there are plenty of possibilities for going astray.

The key given here reduces the challenge by including only those species which have been recorded in Hampshire, or have a chance of being found because they are known elsewhere in the South and there are no natural barriers to their appearing here. That still leaves a considerable number, but it reduces the key to little more than 60 couplets. Of course there is always the possibility of other species that are known only from farther afield turning up here, especially amongst introduced species that are not specialised in their requirements.

If you are seriously interested in recording Hawkweeds, you should never use the key on its own. You will need to read the full species accounts given in Sell & Murrell. There are also useful notes there on the key features and on collecting protocol, in the introduction to the genus.

The annotations that follow the species name are explained in the key. The numbers given before the species name refer to the numbered accounts in Sell & Murrell. Wherever a key couplet is not reached from the one immediately above, I have included the starting point in brackets after the first couplet number, to make backtracking easier.

Hieracium gets only sporadic attention in Hampshire, and there have been no systematic surveys since Sell & Murrell was published, although species treatments have changed in a few groups. However material held in the Hampshire County Museums Service (HCMS) herbarium has been re-examined and renamed. There is no official BSBI referee for Hawkweeds at present, but if people like to send me specimens towards the end of the calendar year, I can arrange for an annual batch to be sent off for determination. If you are new to Hawkweed collection, please talk to me first, as the value of a specimen depends on what, when and how you collect, and also on field notes taken from fresh material. And although one can collect specimens non-destructively, it is best not to collect the rarer species from sites where they are already known and documented.

References

Sell & Murrell (2006), *Flora of Great Britain and Ireland* vol. 4, Cambridge University Press