

APPENDIX 1

ROAD SURVEY

Population Category key

Field Notes

Phase 2: Population Category Key

Category 1

Isolated individual trees or very small groups of mature trees (with/without suckers). Coastal/crag populations comprising only small suckers less than 2m in height.

Category 2

Small populations of trees. Usually of a single age/size class if distributed throughout a larger woodland, but may include suckering regeneration if spatially compact.

Category 3

Moderate-sized populations of trees. Should usually show some age structuring, but applicable to even-aged stands of mature trees if fairly extensive.

Category 4

Major populations of trees. Regionally important and usually showing age structure.

Phase 2 : Road-based survey field notes

Day 1 – Kyle of Sutherland – Strathcarron – Migdale – River Evelix

NH68 – Kyle of Sutherland (Ardchronie and Kincardine), by Ardgay

Map references: NH 614889, NH 610893, NH 607891
Population category: 3

Stands of aspen above and below the main road, amounting to 30-50 stems. Patches of older trees with some apparent suckers. Medium-sized trees in a row along north side of the road at NH 614889. 0-10cm (LF), 10-20cm (O), 20-30cm (A), 30-40cm (F), 40-50cm(R-O). Occasional deadwood. Grassy vegetation and bracken. Occurring together with oak, birch, hazel, rose and willow. Local ash and alder.

NH68 – Kyle of Sutherland (Ardgay Oakwood/ Gearchoille), Ardgay

Map references: NH 601898
Population category: 3

A distributed stand of some 30-40 mature stems throughout wet oak-birch woodland, having been cut over during the war. Some suckers and smaller trees. 0-10cm (LF), 10-20cm (R), 20-30cm (A), 30-40cm (F), 40-50cm (R). Occuring together with oak, birch, hazel and willow. Molinia, bracken, grass and gorse dominate the vegetation.

NH59 – Strathcarron (Lower Gledfield), by Ardgay

Map references: NH 588910
Population category: 1

A small assemblage of some 6 medium-sized trees in a private cottage garden. 10-20cm (D). Grassy managed vegetation.

NH59 – Strathcarron (Dounie), by Ardgay

Map references: NH 565907
Population category: 2

A handful of mature trees on the eastern edge of birch woodland north of the road. Binocular inspection suggests 30-40cm (D) with perhaps 20-30cm being possible. Occuring with predominant birch over typical bracken/ grass vegetation.

NH59 – Strathcarron (Wester Dounie), by Ardgay

Map references: NH 551907
Population category: 2

An assemblage of mature aspen north of the road, predominantly along a burn gully. Certainly 10-15 present, possibly over 20 in total. Mixture of 20-30cm and 30-40cm.

No suckering noted, but possible. Occasional deadwood in burn gully. Birch also present, possibly occasional ash-elm-hazel. Pasture grassland with marginal bracken.

NH49 – Strathcarron (Carron Bridge), by Ardgay

Map references: NH 487914, NH 485914

Population category: 4 [Candidate for more detailed inspection]

A major population of mature aspen (both 20-30cm and 30-40cm abundant, >40cm occasional) on either side of the River Carron. Pure stands of aspen, with suckers. Stock-fenced, certainly on the southern bank, east of the bridge. Growing together with alder and birch. Ground vegetation of pasture grassland and woodland bracken. Some very tall trees of large diameter, especially on the north bank, west of bridge. Some standing deadwood likely, especially in older stand on the north bank.

NH48 – Strathcarron (Amat East), by Ardgay

Map references: NH 473898

Population category: 2

A linear stand of 15-20 trees, predominantly 20-30cm dbh with a few smaller. Along the east bank of the River Carron opposite monument. Birch, alder, Scots pine and juniper growing in the locality over grass/bracken open vegetation. Few suckers. A little standing deadwood is possible.

NH48 – Strathcarron (Alladale, Glencalvie, Carn na Speireig)

Inaccessible for present road-based survey – would require a long walk-in visit. Air-photo checked for the Carn na Speireig woodland, indicating aspen presence.

NH49 – Strathcarron (Braelangwell West), by Ardgay

Map references: NH 492923

Population category: 2

Previously reported group of trees at south-west corner of FC plantation (NH 503928) on north bank of river not specifically seen but may be present among birch scrub woodland. Air-photo does suggest aspen presence. Some mature aspen along the south bank of the river opposite. Mainly 20-30cm, some 30-40cm. On steep river bank below pasture grassland. No suckering seen. Little deadwood likely.

NH59 – Strathcarron (Cawdearg), by Ardgay

Map references: NH 563911

Population category: 2 (perhaps 3 if considered together with Dounie across river)

A dense suckering stand of >30 small aspen trees between the road and the river at the western edge of plantation woodland. 10-20cm (D), no mature trees seen. Ground vegetation of bracken below the trees, with adjoining pasture grassland. Neighbouring woodland of mixed conifer/ hardwood plantation type. No deadwood.

NH69 – Kyle of Sutherland (Ardgay Railway Station/ sidings), by Ardgay

Map references: NH 600905

Population category: 2

A linear population of medium-large aspen trees between the railway and the coast. Access somewhat restricted by railway trespass regulations but probably ~10 trees present beyond platform paling fence. Mainly 20-30cm, with occasional 10-20cm likely. Suckering not observable. Other species include spruce, lime, oak and birch.

NH69 – Kyle of Sutherland (Swordale Wood), by Bonar Bridge

Map references: NH 614907

Population category: 3

A significant population of aspen on a steep slope between the road and the coast. Predominantly straight medium-sized sucker trees of 10-20cm, with a few 20-30cm larger trees towards the eastern end of the stand, which may be the parents. Likely to be 30-50 stems present in total, excluding small suckers. Growing together with oak, birch, hazel and willow. Ground vegetation of bracken and grass with abundant gorse bushes to waist-height, especially at the western end of stand. Little deadwood.

NH69 – Migdale (Burnside farm), by Bonar Bridge

Map references: NH 629932

Population category: 2 (potentially 3 if considered together with Migdale village)

A population of large and medium-sized trees along burn and around field margins. Certainly 15-20 stems, possibly as many as 30-40 as previously reported. 10-20cm (F), 20-30cm (A), 30-40cm (O), 40-50cm (O). Suckers not observed, but possible. Growing together with oak, ash, hazel and birch. Some policy planting possible. Ground vegetation of bracken under the trees adjoining pasture grassland. No apparent deadwood.

NH69 – Migdale (Migdale village), by Bonar Bridge

Map references: NH 628924, NH 632919

Population category: 2 (potentially 3 if considered together with Burnside farm)

Stand of aspen south of the road at NH 632919 with a few trees 20-30cm dbh and associated halo of suckers 0-10cm. Stock-fenced. Distribution of aspen within riparian woodland north of the road at NH 628924, connecting back to the Burnside farm population. At least a dozen trees present, apparently 10-20cm (F); 20-30cm (A); possible suckers. Occurring together with oak, alder, ash, hazel and willow. Ground vegetation variable with bracken and mesotrophic grassland dominant. No deadwood seen but may be embedded in riparian woodland.

NH69 – Migdale (Kyloag), by Bonar Bridge

Map references: NH 660914, NH 663910

Population category: 4 [Candidate for more detailed inspection]

An important population of aspen forming part of the Ledmore and Migdale woodland complex (Woodland Trust Scotland) together with Scots pine and birch. Some hazel and juniper also present. Stand of ~20-30 mature trees on both sides of the minor public road 20-30cm (F); 30-40cm (A), >40cm (O). Suckers <10cm (A). Older trees tend to be heavily branched. Some stock enclosure on the upper edge to promote suckering regeneration onto heather moorland. Vegetation generally ericaceous with some acid grassland and bracken. Some standing deadwood. There are likely to be other areas of aspen within this wider woodland complex.

NH78 – Kyle of Sutherland (Flood/ Newton Point), by Dornoch

Map references: NH 710893, NH 711891

Population category: 2

A small disjunct population of aspen in hedgerows/ policy woodland contexts on either side of the minor public road. Some 4 or 5 trees west of the road at NH 710893, achieving 30-40cm dbh. A few small hedge trees <10cm and 10-20cm at NH 711891. Probably a few suckers at the latter location. Inconsistent ecological context with some planted oak etc and gorse stands. Some aspen was also noted further east at NH 725895, south of the A949 at Rhivaig (probably ~5 trees of 10-20cm dbh, straight).

NH79 – River Evelix (Evelix A9), by Dornoch

Map references: NH 768905

Population category: 1

An inconspicuous group of small aspen <10cm dbh in burnside hedgerow west of A9.

NH79 – River Evelix (Rearquhar), by Dornoch

Map references: NH 736926, NH 741922, NH 744920

Population category: 3

A significant distributed population of aspen throughout woodland between the minor public road and the River Evelix over a distance of 1-2km. At least 50 stems, probably considerably more. 0-10cm (F-A); 10-20cm (A); 20-30cm (O); 30-40cm (R-O). Patches of frequent suckering. Some stands on steep, inaccessible banks. Growing together with oak, hazel, birch and willow. Vegetation generally acid grass/ bracken. Initial photo-inspection with fading light, subsequently revisited in better conditions.

Day 2 – Strath Brora – Rogart – Strath Fleet – Achany – Strath Carnaig

NC90 – Strath Brora (River Brora/ East Brora), by Brora

Map references: NC 900041, NC 906040

Population category: 2

An extensive population of predominantly small suckering aspen along the road for 1km west of Brora along the north bank of the river. Most trees south of road, apart from a stand above the road at the western end of the stand. Almost all trees <10cm, with a few 10-20cm individuals. Certainly 50 in total, very probably 60-70. Grass and gorse present on the river bank beneath trees. Scattered sycamore, elm, rowan etc. A little deadwood in places, but of small diameter.

NC80 – Strath Brora (Clynelish Moor), by Brora

Map references: NC 881045

Population category: 1

A handful of small aspen just south of the minor public road on a grassy heath, together with scattered Scots pine, birch and willow. 0-10cm is the main dbh class but occasional 10-20cm and 20-30cm parent trees noted. Little or no deadwood present.

NC80 – Strath Brora (Killin Rock), by Brora

Map references: NC 860058

Population category: 3

A mixed-size population of aspen of 20-30 stems throughout acid birch woodland above the minor public road. Dbh classes ranging from 10-20cm (O) to 20-30cm (F). Rather few <10cm suckers seen, but some deadwood, including larger fallen pieces. Birch predominant over acid grasses and bracken. Perhaps slightly moribund popn.

NC80 – Strath Brora (Carrol plantation), by Brora

Map references: NC 848066, NC 845063

Population category: 1

A small number of trees beside burns through young spruce plantation. Seen only by binocular survey and appearing likely to be aspen. 0-10cm or 10-20cm dbh at most.

NC80 – Strath Brora (Killin north), by Brora

Map references: NC 857075

Population category: 2

A small number of aspen trees embedded in oak-birch-alder woodland above the road. Probably about 6 trees – some mature and previously reported up to 60cm dbh. Access impeded by deer fence, rough ground and dense undergrowth, so crown view. Ground vegetation typical for an acid oak-birch woodland.

NC80 – Strath Brora (Carrol Rock), by Brora

Map references: NC 850075 to NC 832093

Population category: 1

Infrequent small crag aspen apparently present from binocular survey across loch. Unlikely to be possible to investigate further due to steep inaccessible terrain.

NC80 – Strath Brora (Gordonbush), by Brora

Map references: NC 842098

Population category: 1

A row of some 10-12 small aspen trees along the south side of the road. 10-20cm dbh with some <10cm dbh suckers, possibly extending into new native woodland plantings in the adjoining field, but very difficult to assess in the absence of foliage to identify. Grassy bankside vegetation. Little or no deadwood opportunity. Some ash and willow.

NC80 – Strath Brora (Balnacoil), by Brora

Map references: NC 807113 (trees reported at NC 825114 not visible from road)

Population category: 1

A discrete isolated stand of some 6 tall straight aspen (20-30cm dbh) in policies. Surrounded by managed gardens and policy plantings, planting may be suspected.

NC70 – Strath Brora (Sciberscross), by Brora

Map references: NC 776097, NC 783099, NC 794107

Population category: 2 (possibly meriting 3 upon further inspection)

Aspen scattered throughout open woodland of oak-birch-hazel-alder etc. Most notable concentration of aspen is at the western end down stream gully below road. Scattered aspen “hedgheg” crowns through oak-birch woodland further east, but somewhat difficult to pick out. Outliers at NC 794107 above road by plantation edge. Probably 20-30 aspen, predominantly 20-30cm dbh, with a few 10-20cm. Easton reported a 45cm dbh stem. Apart from the western end there is little obvious regeneration and a disappointing, moribund feel to the aspen population. Some aspen deadwood likely given condition of woodland. Grassy and bracken vegetation of a wood-pasture type, rather poached in places. A longer visit under summer conditions might allow more aspen to be picked out and a better score.

NC70 – Strath Brora (Dalreavoch Lodge), by Brora

Map references: NC 754089, NC 753087

Population category: 2

A discrete stand of ~10 tall straight aspen immediately east of the lodge, in landscaped grounds. From a distance appeared to be 10-20cm dbh, possible some achieving 20-30cm. Grassy bank below pine plantation. No deadwood likely. There is also apparently some small, inconspicuous aspen among birch-alder woodland on the south bank of the river below the public road (10-20cm dbh).

NC70 – Strath Fleet (Rogart – Achnagarron and Balclaggan), by Rogart

Map references: NC 735046, NC 737044, NC 738048

Population category: 1 (as actually observed), 2/3 (if assumed to exist as reported)

Previously reported aspen among small oak-birch-hazel woodland surrounding crofts. Could not all be found during visit, but some areas off-limits due to private grounds and livestock etc. Context suitable and no reason to doubt previous reports. A row of hedgerow aspen (probably <10 trees, 20-30cm dbh) observed at NC 738048. Location might merit further enquiries/ longer inspection to ascertain its true extent.

NC70 – Strath Fleet (Rogart – Miltonbank and Remusaig), by Rogart

Map references: NC 733029, NC 732021

Population category: 3 (could conceivably be a 4, when taken in the round).

Fairly extensive distributed population up the valley of the Garbh Allt and tributaries above Rogart as far as Miltonbank cottage. Most conspicuously as “hedgehog” aspen crowns in woodland below the road and to its west at NC 733029, but very inaccessible due to wet boggy ground and stream beds (no paths in wood). Also some aspen along the road below the bridge, in croft gardens etc. At least 15-20 stems present, and probably considerably more throughout the locality. Dominant size classes will be 10-20cm and 20-30cm dbh, with Easton reporting the largest at 39cm. Suckering not widely observed but may be embedded within woodlands. Similarly with deadwood. Woodland context diverse with oak, alder, birch, hazel, willow. Difficult to come to terms with as a population due to its scatter and awkward access.

NC70 – Strath Fleet (Morness), by Rogart

Map references: NC 712046, NC 709050, possible clumps as far up as NC 707059

Population category: 4 [Candidate for more detailed inspection]

An extensive and important population of aspen along the valley of the Torbreck Burn, certainly number 30-50 stems and probably as many as a 100 in total. Most prominent grouping at NC 712046 – a row of 20-30 stems, mature and straight. Size

classes will be 20-30cm (F), 30-40cm (A), >40cm (O), but no visible suckering. Occasional standing deadwood. Other clusters of aspen seen up the valley by binocular survey down onto the canopy – access on foot appears reasonable. Woodland context is of oak, birch, hazel, willow and alder. Grass and bracken banks.
NH59/NC50 – Achany Glen and Shin Falls, by Lairg

Map references: NC 573008, NH 577993, NH 577985, NH 578982
Population category: 4 [Candidate for more detailed inspection]

One of the most important assemblages of aspen stands in the North Highlands. Certainly >100 stems. Large populations on both sides of the valley, many on steep heather-clad scree slopes and boulder fields. Some on railway and road embankments. Overall size class distribution would appear to be 0-10cm (A); 10-20cm (A); 20-30cm (F); 30-40cm (O); >40cm (R). Abundant suckering in places and some deadwood, especially in the inaccessible stands on the east bank at south end. Woodland context is of mixed birch, hazel, rowan, oak and willow, locally with alder. Access to parts of the site made virtually impossible by railway and unsafe slopes. Further examination will be merited but will have to rely on detailed binocular work.

NC60 – Strath Fleet (Acheilidh and Ardachu), by Rogart

Map references: NC 670039, NC 681040
Population category: 1 (possibly achieving 2 if under-observed)

A minor scattered population of medium-sized aspen trees in croft lands. Difficult to estimate total number – FR database reports 28 stems, which seems rather optimistic. Size classes will be predominantly 10-20cm and 20-30cm, possibly with some suckers. Scattered through scrub woodland of birch-hazel-willow and similar hedgerows.

NC60 – Strath Fleet (Blarich), by Rogart

Map references: NC 689039
Population category: 1

A small stand of aspen within a walled garden north of the main road. ~3 larger stems of 20-30cm dbh, with a few saplings of <10cm along edge of garden. Managed garden context with some other multi-stem shrubs present – possibly coppice hazel.

NC60 – Strath Fleet (Tressady and Torbreck), by Rogart

Map references: NC 696043, NC 699039, NC 704037
Population category: 3

An important population of at least 30-50 aspen, as clonal clumps amongst oak-birch woodland on a steep slope and within private gardens at its foot. Access to the clumps within the woodland difficult due to steep ground. Predominant size classes are apparently 10-20cm (A) and 20-30cm (F) dbh, perhaps some <10cm suckers up high. Deadwood potential probably limited by small size, little from larger trees at foot. Higher stands are on acid grassland patches amongst heathery vegetation; trees at the foot of the slope on managed grassland with patches of bracken.

NC70 – Strath Fleet (Rogart – Davochbeg, Station and Public Hall), Rogart

Map references: NC 723017, NC724021, NC 728017

Population category: 2

Small stands of thin straight aspen along minor road from level-crossing to Davochbeg, near railway sidings and beside village hall car park. Almost all young trees <10cm dbh, but a few achieving 10-20cm. Perhaps 30-50 stems in total. A suspicion of planting in the shelterbelt at Davochbeg where aspen is readily confused with young planted ash, in the absence of foliage to identify. Artificial grass embankment vegetation. Ash and other species local. Little or no deadwood interest.

NH79 – Strath Fleet (Mound Rock), by Golspie

Map references: NH 774986 (extending eastwards)

Population category: 2 (perhaps achieving 3 for the whole woodland)

Stand of 20-30 stems on bracken-covered boulder slope above the road. A variety of sizes but predominantly 0-10cm (A) and 10-20cm (F) dbh. Perhaps a few 20-30cm. A small amount of deadwood. Mixed long-established plantation woodlands of oak, birch, hazel and willow. Some fellings of conifers to the east in the recent past. Smaller trees represent suckering regeneration from the larger, but not very recent.

NH79 – Strath Carnaig and Torboll Woods, by Golspie

Map references: NH 747986, NH 762984, NH 767977, NH 768970

Population category: 4 **[Candidate for more detailed inspection]**

Important populations of aspen along the River Carnaig and the south-western fringe of the Mound Alderwoods. Diverse woodland context of oak, alder, birch, hazel and including blackthorn/sloe. Older aspen of 20-30cm dbh (F), 30-40cm (O) located in burn gorge at NC 747986 with little apparent sign of regeneration and some deadwood. Younger suckering stands of aspen at NH 767977 on rocky boulder slope immediately above the minor public road – 0-10cm dbh (A), 10-20cm (F), 20-30cm (R). Crag aspen (0-10cm dbh (D)) on Torboll at NH 762984 and above NH 767977. Occasional trees throughout Torboll Woods and south of Cambusmore Lodge. Ground vegetation a combination of bracken, acid grasses and locally ericaceous. Site would merit some further examination but parts likely to prove inaccessible.

Day 3 – Brora – Loth – Helmsdale – Langwell – Berriedale – Dunbeath – Wick

NC80 – Strath Brora (West Clyne), by Brora

Map references: NC 883053

Population category: 1

A few small aspen on the north side of the minor public road. 0-10cm dbh.

NC80 – Strath Brora (East Clyne), by Brora

Map references: NC 893064

Population category: 1

A few small aspen (0-10cm dbh) up burn gorge above whisky distillery. Very doubtful if numbers reach 20-30 as reported previously, but evidence of some fire damage. Some accompanying oak, birch and hazel. Ground vegetation heather and bracken. Stand of 20 trees reported at Achrimsdale (NC 909068) not relocated on this visit.

NC90/NC91 – Glen Loth, Lothbeg and Ballinreach coastal gorges, by Brora

Map references: NC 947114, NC 946107, NC 943096, NC 940093

Population category: 4 [Candidate for more detailed inspection]

Important population centre for aspen, stretching down valley from bottom of conifer plantation block towards the A9, with large coastal suckering populations below the railway line westwards along the coast to Ballinreach. Glen Loth trees primarily 20-30cm dbh with some 10-20cm and some suckers <10cm. Important stands at NC 947114 on valley floor and on steep slopes at NC 946107 containing at least 30-50 trees. Woodland context of birch-hazel, with some ash further down the valley. Occasional deadwood in older stands. Abundant <10cm suckers along the coast. Ground vegetation dominated by rank gorse with bracken and acid grassland.

NC 90/NC91/ND01 – Kintradwell, Crakaig, West Helmsdale and Navidale

Map references: NC 925076, NC 947107, ND 022150, ND 038162

Population category: 1 or 2 (if in existence)

The locations of these formerly reported small populations were visited briefly without being able to relocate the trees. Those at West Helmsdale may form part of patchy scrub on the steep bank above the A9. Those at Navidale may have been removed as part of recent realignment of the main road in that area. The tree at Crakaig could not be found but may be embedded within private policy woodland. The 20 trees previously reported for Kintradwell must be small if they remain extant.

ND02/ND12 – Langwell and Berriedale Waters, by Helmsdale

Map references: ND 110233, ND 110222, possibly further up straths.

Population category: 3 [Candidate for more detailed inspection]

Formerly reported as significant populations on the Duke of Portland's estate, including some very large trees in the Langwell Water. Difficult to view from the A9 and access up the private road along the Langwell Water restricted. Some small crag aspen seen among birch etc in the lower part of the valley of the Berriedale Water. Estate factor has indicated that several patches exist and that Estate will agree to a future visit to allow for a more detailed survey. Context of birch-hazel woodland and pine/larch plantations in the Langwell Water valley. Future visit is to be considered.

ND13 – Dunbeath Water and Houstry Burn, by Dunbeath

Map references: ND 146306, ND 156306

Population category: 4 [Candidate for more detailed inspection]

Major populations of aspen along the Dunbeath Water, particularly around Balcraggie and Balantrath reaches below walled cemetery. Also a notable population on the steep eastern bank of the Houstry Burn (a tributary of the Dunbeath Water) above and below the bridge at Rhemullen. Likely that at least 100 stems present. Size classes include 0-10cm (A), 10-20cm (A), 20-30cm (F-A) and occasional larger stems. Some suckering and deadwood. A diverse woodland context with birch, hazel, rowan, willow, cherry etc. Varied ground vegetation including bracken slopes and riparian grassland. One of the most important population centres within the area of search. Requires a more extended visit to record further details of population characteristics.

ND13 – Burn of Latheronwheel/ Leodebest, Latheronwheel, by Dunbeath

Map references: ND 181342, ND 186330

Population category: 2 (perhaps achieving 3 along the valley as a whole)

A riparian stand of small aspen sighted by binocular survey on the Burn of Latheronwheel below the Hill of Leodebest, where crag population has previously been reported. Some 12-15 trees of 0-10cm dbh (estimated from a distance) among mixed birch scrub with occasion planted Scots pine etc. Some aspen also thought to be present further down valley towards the A9 (for example below Landhallow). Fairly diverse woodland context with ash, birch and hazel present in valley/ gorge.

ND23 – Reisgill Burn, Invershore, by Lybster

Map references: ND 241353

Population category: 1

A small number of aspen suckers <10cm dbh on steep banks of Reisgill Burn above stone bridge leading to Lybster harbour and heritage centre. Scrub of birch, hazel, rowan, willow, juniper, elder etc in patches in the same area. Inaccessible by foot.

Day 4 – Strath of Kildonan - Strath Halladale – north Caithness coast – Thurso

NC91 – Strath of Kildonan (Kilphedir and Birchwood Lodge), by Helmsdale

Map references: NC 985186 to NC 992186

Population category: 4 [Candidate for more detailed inspection]

Important stands of aspen stretching for about 1km along the A897 from Kilphedir to the woods west of Birchwood Lodge. Possibly at 100-150 stems present, both above and below the road. Some pure aspen groves of excellent form, notably adjacent to Birchwood Lodge on a level grassy site, but also much aspen scattered amongst oak-birch-rowan woodland west of Birchwood Lodge. Good age structure, although fairly limited suckering to be observed from the road, primarily to the east at Kilphedir. Overall estimated stem distribution is 0-10cm (O); 10-20cm (F); 20-30cm (A); 30-40cm (F); >40cm (O). Ground vegetation primarily bracken and soft grass. Some deadwood – especially in the oakwood west of Birchwood Lodge.

NC91 – Strath of Kildonan (Balvalaich/ Killearnan), by Helmsdale

Map references: NC 937192 (also reported by DCJ at NC 940187 opposite)

Population category: 1

An isolated set of 3 or 4 mature procumbent aspen in a small gully above the road on the north side of the Strath. Large diameter 30-40cm or >40cm. No suckering and some dead wood on the trees. Grazed grass and cropped heather vegetation. Birch and alder also locally present. Previous reports for Killearnan on the south side.

NC92 – Strath of Kildonan (Kildonan), by Helmsdale

Map references: NC 911203

Population category: 3 (would be 4 taken together with Craggie Water)

A significant population of aspen along the minor public road above the railway line. At least 30 trees, more probably 50-60, mostly young but with some very old parents. Diameter class distribution is estimated as: - 0-10cm (F), 10-20cm (A), 20-30cm (F), 30-40cm + >40cm (R). Frequent standing deadwood associated with old trees. Drifts of suckering between road and railway. Birch is the dominant species in the woodland. Ground vegetation is a mosaic of heather, bracken and acid fine grasses.

NC91 – Strath of Kildonan (Craggie Water), by Helmsdale

Map references: NC 915194, possibly also out of sight of road at NC 890191

Population category: 3 (would be 4 taken together with Kildonan)

An interesting population of at least 50 aspen on rocky sides of a small gorge between the minor public road and the railway bridge. May extend up the Craggie Water out of sight – previously reported there by ITE survey. Well structured population with some suckering on inaccessible rock faces: - 0-10cm (F); 10-20cm (A); 20-30cm (F); 30-40cm (R). Frequent standing deadwood. Some birch, rowan and alder locally, but aspen is the dominant species. Ground vegetation is predominantly heathery.

NC82 – Strath of Kildonan (Learable), by Helmsdale

Map references: NC 897244

Population category: 2

A small distributed riparian population of mature aspen along the west bank of the River Helmsdale upstream of Learable, opposite Suisgill Lodge. Between railway line and river bank, fenced off. At least 6 trees of 20-30cm and 30-40cm dbh seen on grassy river bank, but more are likely to be present. Extensive woodland of birch on a bracken slope immediately behind. No suckering or deadwood interest noted.

NC94 – Strath Halladale (Halladale River above Bunahoun), by Melvich

Map references: NC 900461, NC 905467, NC 900499

Population category: 2

Small riparian stands of aspen along River Halladale and tributary (Allt na h'Imriche) before it opens out into Strath Halladale at Bunahoun. Exclusively small trees <10cm dbh, <2m ht. Some small birch trees also present. Surrounded by heather moorland on edges of conifer plantations.

NC85 – Strath Halladale (Trantlemore and Trantlebeg), by Melvich

Map references: NC 896533, NC 893540

Population category: 4 (whole Strath) **[Candidate for more detailed inspection]**

Extensive populations of aspen along both sides Strath Halladale between Bunahoun and Millburn bridge. Large population of suckering trees <10cm dbh at mouth of side stream beside Trantlebeg. More mature stands of 10-20cm and 20-30cm dbh trees on western side north of Trantlemore. Occasional larger trees to 40cm dbh. At least 30-50 trees present in total. Context is croft woodlands of birch, hazel, rowan and willows. Occasional deadwood likely in older stands. Ground vegetation of bracken and rough grazing grassland. Improved pasture on the valley floor below woodland.

NC85 – Strath Halladale (Coille mac nam Muc and Ardachadh), by Melvich

Map references: NC 893554, NC 893558, NC 893567, NC 895572

Population category: 4 (whole Strath) **[Candidate for more detailed inspection]**

Considerable populations along the eastern side of Strath Halladale below the Millburn bridge, both sides of the A897. At least 30 trees in total. Range of diameter classes 10-20cm (F); 30-40cm (F), 40-50cm (O). Limited suckering and deadwood. Many of the trees are multi-stemmed – possibly due to past cutting or cattle browsing. Birch also present as the dominant species over bracken and rough grassland vegn.

NC85 – Strath Halladale (Smigel Burn), by Melvich

Map references: NC 898575

Population category: 2

Small aspen groves distributed up Smigel Burn, into small gully. Multi-stemmed bushy trees with dbh <10cm, perhaps occasionally 10-20cm. Surrounded by bracken and rough grassland vegetation. No other tree species present.

NC86 – Balligill, Strathy, by Melvich

Map references: NC 853654

Population category: not found

Location visited and searched based on previous reports but no aspen observed.

NC76 – Armadale Gorge, Armadale, by Bettyhill

Map references: NC 796638

Population category: 1 (possibly 2 if it were possible to view further up the gorge).

Small aspen bushes (dbh <10cm) seen on crags on the western side of the gorge. Birch, rowan, hazel scrub also present in the locality. A more extended visit would be required to make a walk-in along the gorge (west side) to view it safely from above.

NC76 – Swordly Burn, by Bettyhill

Map references: NC 739620, NC 741619 and beyond.

Population category: 1

A stand of small aspen (dbh <10cm) on crag north of the road above entry to private road. Perhaps 5-10 individuals, likely to be a single clone. A few similar individuals along the Swordly Burn south of the road, also on precipitous gully slopes.

NC96 – Achvarasdal, Reay, by Thurso

Map references: NC 985646

Population category: 1

A single mature individual previously reported but unable to examine closely as only access was through private grounds and a scrapyard site. Not pursued for single tree.

ND06 – Forss Water (Westfield Bridge), by Thurso

Map references: ND 056642

Population category: 2

A conspicuous row of even-sized aspen on a steep bank south-east of the bridge. Trees 10-20cm and 20-30cm dbh. Little evidence of suckering or deadwood. No other tree species present in the immediate locality and very limited ground vegetation on bank.

ND16 – River Thurso (cemetery bridge), Thurso

Map references: ND 112673

Population category: 1

A clump of 6-8 mature aspen of 10-20cm and 20-30cm dbh, with some small suckers. Trees are on a steep gorse bank between the railway and the river bank at the southern end of the footpath along the foot of beech-sycamore policy woodlands. Near footbridge across the river from the cemetery on the eastern bank (collapsed).

ND27 – Dunnet Head, by Castletown

Map references: ND 214740 and other locations around the Dunnet Head cliffs.

Population category: 1 (due to predominance of small suckers, although extensive)

Several aspen populations on Dunnet Head have previously been recorded by David Glass, almost all consisting of small suckers <1m in height on steep coastal slopes. A single tree of 3m ht, <10cm dbh was recorded and photographed at Courtfall Loch. A familiarisation visit to Dunnet Head was made at the end of the day but no attempt to relocate stands on this occasion due to topography, failing light and poor weather.

ND27 – Scarfiskerry, by Castletown

Map references: ND 266746

Population category: 1 (due to predominance of small suckers, although extensive)

Small suckering aspen, less than 1m height, previously recorded in coastal grassland. A familiarisation visit to Scarfiskerry was made but weather/light too poor to relocate.

ND15 – River Thurso (Halkirk Bridge), Halkirk

Map references: ND 130596

Population category: not found.

An individual aspen had previously been reported at this location, but only ash were found on this occasion. It is possible that these could have been misidentified before.

ND15 – River Thurso (Westerdale), by Halkirk

Map references: ND 129518, ND 128519, ND 130523

Population category: 3

Stands of aspen on both sides of the River Thurso, primarily north and west of the Post Office and in a row immediately south of Dale House. Primarily tall straight stems of 20-30cm dbh with some suckers <10cm dbh, especially near the Post Office. Occasional ash etc also present, likely planted. Improved grassland vegetation below.

ND25 – Strath Burn, Watten, by Thurso

Map references: ND 253515

Population category: 3 (as previously reported), probably only 2 based on view.

Previously reported as having 50 aspen trees on west bank of the burn. A binocular view confirmed presence of scrub woodland with probable aspen. Stature of trees looks fairly small (<5m ht). A closer walk-in inspection would be required to evaluate extent of population accurately. Scrub appears to contain birch, hazel, willow etc.

ND14 – River Thurso (Dirlot Gorge), Westerdale, by Halkirk

Map references: ND 126487

Population category: 3 (as previously reported), probably only 2 based on view.

Previously reported as having 50 large aspen trees on both sides of gorge. Only a distant binocular view possible from the road, confirming presence of scrub woodland with probable aspen. Stature of trees looks fairly small (<5m ht). A closer walk-in inspection would be required to evaluate extent of population accurately. Scrub is reported as diverse with birch, hazel, rowan, cherry, elm etc present.

ND14 – River Thurso (Little River/ Loop Burn, Tacher), by Halkirk

Map references: ND 171467

Population category: 2

A stand of birch-dominated scrub woodland containing aspen reaching 4m in height as previously reported. Binocular view from the north confirmed presence of aspen and suggested somewhat taller – perhaps 6m among small birch trees along burn. Trees thought likely to be a mix of 0-10cm and 10-20cm dbh based on crown size.

Day 5 – Kyle of Sutherland – Strath Oykel – Glen Cassley

NH59 – Kyle of Sutherland (Culrain and Carbisdale), by Bonar Bridge

Map references: NH 578945, NH 576947, NH 575956

Population category: 3

Significant population, totalling 30-50 aspen trees, distributed along the road and railway from south of Culrain to north of Carbisdale Castle. Most trees in rows and hedges at the edge of pasture fields and along the eastern side of the public road. Size class distribution (estimated):- 0-10cm(O); 10-20cm(F-A); 20-30cm(F); 30-40cm(O). Occasional suckering, particularly at NH 575956 and a small amount of deadwood. Context of birch woodland, with some planted pine and occasional wet willow stands. Ground vegetation predominantly grassy, being managed pasture and gardens.

NH59 – Kyle of Sutherland (Invershin), by Bonar Bridge

Map references: NH 577956, NH 573963, NH 580948

Population category: 3

Several stands of aspen distributed along the eastern side of the Kyle of Sutherland on farmland and in gardens. Associated with some birch, alder and willow woodland. Probably at least 20-30 stems in total. Predominant size class is tall, elegant stems of 10-20cm dbh (as at NH 577956), with some larger 20-30cm and 30-40cm material, especially further north at NH 573963. Little young sucker material or deadwood. Ground vegetation will be primarily improved/ semi-improved grassland swards.

NH59/NH69 – Kyle of Sutherland (Balblair/ Drumliah), by Bonar Bridge

Map references: NH 596936, NH 603930

Population category: 2 (possibly verging on a 3)

Aspen distributed along both sides of the A836 for 300-400m, both sides of road. A combination of mature 20-30cm dbh material with groves of >10cm dbh suckers. On road verges, croft garden and on edge of FC Balblair Wood above the road. Up to 20 trees present, excluding small suckers. Gorse and grass dominated the understorey. Some of the trees in association with thicket stage conifer plantation east of road.

NH59 – Kyle of Sutherland (Inverhouse), by Bonar Bridge

Map references: NH 565967

Population category: not found

Single large tree previously reported not found. May have been felled as part of recent house-building work at this site.

NH59 – Kyle of Sutherland (Rhelonie), by Bonar Bridge

Map references: NH 556977, NH 554978

Population category: 3

A significant population of mature aspen throughout pleasant native woodland of oak, birch, hazel, rowan, alder and willow. Possibly as many as the 40 trees previously reported, but 20-30 would be a more conservative estimate. Estimated size class distribution would be 0-10cm (O); 10-20cm (O); 20-30cm (F-A); 30-40cm (F); >40cm (O) – the largest tree previously reported as being 56cm dbh. Occasional deadwood, but limited suckering actually seen – would need a longer visit to assess. Ground vegetation of bracken and grasses, locally wet ground, wood stock fenced.

NH59 – Kyle of Sutherland (Torroy), by Bonar Bridge

Map references: NH 548977

Population category: 2

A smallish linear population along the south side of the minor public road for ~100m with open heather moorland stretching away above. Generally small, elegant, straight trees of 10-20cm dbh; drifts of suckers <10cm dbh and occasional stems of 20-30cm. Perhaps 15-20 trees of at least sapling dimensions. Little or no deadwood interest.

NH59 – Kyle of Sutherland (Achnahanat/ Badarach), by Bonar Bridge

Map references: NH 523985

Population category: 3

A fairly significant population of 30-40 medium-sized aspen within mid-slope oak, birch and alder woodlands and along field margins. 10-20cm dbh and 20-30cm dbh will both be frequent, probably 30-40cm more occasional. Too distant to see suckers. Likely to be occasional deadwood, given the nature of the stands. Ground vegetation comprises rough pasture grassland and wet birch woodland types.

NH59 – Kyle of Sutherland (Kilmachalmack), by Bonar Bridge

Map references: NH 505986

Population category: 1

A small number of mature aspen 20-30cm dbh seen on upper edge of birch-hazel-rowan woodland at break of slope. There may also be some smaller bushy aspen in the woodland following the burn at NH 504985.

NC40 – Strath Oykel (Inveroykel), by Lairg

Map references: NC 458009

Population category: 2

A small population of straight stemmed aspen on a steep bank below the public road. There looked to be 4-6 fine stems of 10-20cm dbh with a few smaller suckers. Woodland is predominantly of birch over short grass. There was some lying deadwood which may be partly of aspen. The woodland to the east at NC 463008 where aspen was reported in the 1970's, is now predominantly Scots pine plantings.

NC40 – Strath Oykel (Coill a'Chnocain), by Lairg

Map references: NC 446015

Population category: 1

A large old aspen tree (dbh >40cm) on a bracken bank with ~10 <10cm suckers. Woodland context is of oak, birch, rowan with alder-willow along the bank below.

NC40 – Strath Oykel (Langwell – opposite bank), by Lairg

Map references: NC 415013

Population category: 1 (could conceivably be a 2).

A few tall straight aspen of 10-20cm dbh spotted along the north bank of the river near the bridge and fishermen's car park at the foot of the bank. Woodland primarily of birch, hazel and alder. May be more trees out of sight to the west at NC 408012.

NC30 – Strath Oykel (Oykel Bridge), by Lairg

Map references: NC 385009

Population category: 2

A row of about a dozen tall straight aspen (dbh 10-20cm) just inside the wall surrounding the garden of the Oykel Bridge Hotel. Garden context. No sign of any suckers or deadwood interest at the site.

NH39 – Strath Oykel (Langwell Wood, Amat), by Lairg

Map references: NH 394997 (may also be some at NH 392997)

Population category: 2

A number of aspen in the gorge of a burn at the extreme western end of the woodland. Likely to be a mixture of 10-20cm and 20-30cm dbh material. Natural looking. Context mainly birch woodland – may formerly have been conifer plantation. Fenced. There may also be some small aspen in the burn gully to the east at NH 392997.

NH39 – Strath Oykel (Glen Einig and Corriemulzie)

Inaccessible for present road-based survey – would require a long walk-in. Air photo checked, confirming likely presence of aspen at pre-identified locations.

NC30 – Strath Oykel (Garbh Allt, Lubcroy), by Lairg

Map references: NC 352017

Population category: 1

A few small aspen trees, <10cm dbh, on rocky gully crags above the road. Woodland primarily of birch.

NC30 – Strath Oykel (Caplich Wood), by Lairg

Map references: NC 358020

Population category: 1

A handful of isolated aspen trees on grassy river bank below plantation edge. One tree appears to reach 30-40cm dbh, the others 10-20cm, probably being suckers.

NC30 – Strath Oykel (Sallachy Forest–Allt Rugaidh Mhor and River Oykel), by Lairg

Map references: NC 347063, NC 342056

Population category: 2 (might achieve a 3 including trees out of sight of the road)

Stand of small straight aspen <10cm dbh seen by binocular survey among alder woodland along the River Oykel at NH 342056. Perhaps 20 stems present. Previously reported 6 mature trees in side burn at NC 347063 hidden from view from the road by a fold of land. Subsequently checked and confirmed on air-photo.

NC40 – Strath Oykel (Cassley Bridge, Invercassley), by Lairg

Map references: NC 472022

Population category: 2

A dense stand of suckering aspen (at least 30 stems, <10cm dbh) on the west bank of the River Cassley, immediately below Cassley Bridge. One large aspen 40-50cm dbh. Two other similar looking old trees at the same site appeared to be gean, not aspen. Ground vegetation of fine acid grasses.

NC40 – Glen Cassley (Glencassley Castle), by Lairg

Map references: NC 441076, NC 440078

Population category: 1

A number of large aspen (dbh 30-40cm or more) spotted among birch woodlands on slopes west and north of the castle. At least 3 stems present, possibly more. Reports of aspen further up the valley at and beyond Duchally – heavy rain obscured view for binocular survey, but later checked and confirmed as reasonable on air-photo.

NC40 – Glen Cassley (Rossal Wood), by Lairg

Map references: NC 462045

Population category: 1

Two large procumbent aspen on west bank of Cassley, 30-40cm dbh, among birch.

NC40 – Glen Cassley (Achness Falls), by Lairg

Map references: NC 469030

Population category: 1

At least one aspen within pine woodland west of the minor public road (dbh 10-20cm). Additional mature trees previously reported nearer falls at NH 468028.

NC40 – Strath Oykel (Rosehall Wood, Invercassley), by Lairg

Map references: NC 487008

Population category: 1 (so far as assessed)

One large aspen sighted near lower edge of wood, but this site would need a further visit on foot or an overview from the south-side of Oykel at Ochtow to verify extent. Air-photo suggests large aspen may be present along the track at the foot of wood.

NC40 – Kyle of Sutherland (Altass), by Lairg

Map references: NC 497001

Population category: 3

An impressive stand of mature aspens above the minor public road (gorse/bracken knoll) with some younger suckering trees along the edge of the road. Probably some 10-15 stems 30-40cm (F), >40cm (O) – largest previously measured at 54cm dbh. Frequent stems in the 0-10cm and 10-20cm dbh ranges. Some standing deadwood. Context of mixed woodland of birch, sycamore and ash, with conifers / invasive regen. Occasional aspen seen from across Strath in woods below Auchintoul (NH 516994)

NH59 – Kyle of Sutherland (Linsidemore), by Lairg

Map references: NH 549990

Population category: 2

Groups of tall straight aspen on field slopes above the main road, on either side of the minor road up to Linsidemore. Perhaps 10-12 stems in total, 10-20cm/ 20-30cm dbh. Grazed paddock rush pasture, with some ash and beech planted trees present. A few <10cm suckers at the roadside to the western end of grouping. Little deadwood.

Day 6 – Loch Assynt – Loch Inver – River Kirkaig – Assynt – Kylesku

NC22 – Loch Assynt (An Coimhleum), by Inchnadamph

Map references: NC 237223

Population category: 1

A scatter of crag aspen seen through binoculars at upper edge of birchwood. Likely all to have dbh <10cm.

NC12 – Loch Assynt (north shore, Allt an Tiaghlach, Loch Beannach), by Lochinver

Map references: NC 200260-160250, NC 160238, NC 143265

Population category: 1 (possibly achieving 2)

A few small aspen seen along north shore of Loch Assynt (dbh <10cm). Populations at Allt an Tiaghlach and Loch Beannach islands out of sight of road but checked on airphotos of the area for reasonableness. Allt an Tiaghlach reported as 15-20 trees.

NC01 – River Kirkaig, by Lochinver

Map references: NC 085194, NC 087194 and point up valley to NC 102183

Population category: 4 [Candidate for more detailed inspection]

Significant population centre for aspen on both sides of Kirkaig valley. Impressive stands and individuals along upper side of road and around car park by bookshop. Clumps of aspen seen among birch further up valley by binocular survey. All sizes represented up to ~40cm dbh. At least 50 trees, likely many more along whole valley. 0-10cm (A); 10-20cm (A); 20-30cm (F); 30-40cm (O); >40cm (R). One very large tree beside bookshop with noted lower plant interest on bark (per I. Evans). Context of diverse birch woodland with hazel, rowan, oak, holly, elm, cherry etc. Vegetation predominantly of bracken and acid grasses, some boulder slopes. Deadwood likely.

NC02 – Loch Inver (Badnaban), by Lochinver

Map references: NC 077210; NC 075213

Population category: 2

Small groups of aspen (some with suckers) amongst coastal birch-hazel woodlands. Occasional trees reaching 30cm dbh, but most 10-20cm, with suckers <10cm dbh. A notable clump of aspen on the rocky promontory beyond slipway at NC 075213. Perhaps about 20 trees in total in this area.

NC02 – Loch Inver (Strathan), by Lochinver

Map references: NC 084212 (and possibly out of sight at NC 084216)

Population category: 3

More extensive groups of small aspen than at Badnaban above. Quite possibly 30-50 stems including those distributed through birch woodlands. Fairly frequent aspen along the minor public road, down the side track to Strathan Bay and around the bay. Diameter distribution:- 0-10cm (O); 10-20cm (A); 20-30cm (O); 30-40cm (R). Some suckers but probably underestimated as embedded within dense oak-birch woodland. Hazel abundant and some small ash also seen along the road. Plenty of bracken, acid grassland and bare rock surface forming the ground cover. Deadwood uncommon.

NC02 – Loch Inver (Culag Woodland and Loch Culag), by Lochinver

Map references: NC 095213, NC 093215, NC 090217

Population category: 2 (but likely to rise to 3 with further inspection of Culag Wood)

Frequent aspen on crags along the south side of Loch Culag and into the Culag plantations, which are now considerably opened-up by fellings and windblow. Context of birch-hazel woodland with occasional oak and ash and conifer plantings. Diameter distribution 0-10cm (O); 10-20cm (F); 20-30cm (O); 30-40cm (R). Some suckers. Need care not to confuse aspen with ash at this location without leaves. Occasional deadwood on crags. Further exploration into Culag Wood is merited to confirm the report of aspen at NC 090217 – so far airphoto checked only for these.

NC02 – Loch Inver (behind Lochinver medical centre/ shops), Lochinver

Map references: NC 095227

Population category: 2

Small populations of crag aspen on grassy crags behind shops and medical centre. More than 20 stems – 0-10cm dbh (F); 10-20cm dbh (F). Some suckering. Occasional small deadwood. Ash and birch also growing along the crags.

NC02 – Loch Inver (Baddidarach), by Lochinver

Map references: NC 083226; NC 085233

Population category: 2 (bordering on 3, taken together with those at Lochinver)

Populations of small aspen trees among coastal oak-birch-hazel woodland west of Baddidarach and also leading up the Gleannan Salach. Mostly 10-20cm dbh with some suckers of <10cm. Ground vegetation mainly bracken, fading up into heather.

NC02 – Assynt (Loch Roe, Ardroe and Torbreck), by Lochinver

Map references: NC 072243, NC 074247, NC 071246, NC 080247, NC 075249 etc
Population category: 4 [Candidate for more detailed inspection]

Very extensive populations of coastal aspen among small-stature birch-hazel-rowan woodland (some oak-ash-elm) on rock slopes, with heather, acid grasses and bracken. More than 100 aspen stems, possibly 200. All sizes classes up to 30cm dbh abundant, with frequent active suckering. Occasional to frequent small dimension deadwood. Some material on inaccessible slopes, but much could be surveyed in more detail.

NC13 – Assynt (Pollachapuill and Culkein Drumbeg), by Lochinver

Map references: NC 106333, NC 106327
Population category: 3

Fairly abundant small aspen, with suckering regrowth, throughout coastal birch-rowan-hazel woodlands with occasional oak. Mostly 0-10cm dbh (F); 10-20cm (A). Particularly noticeable on steep west-facing slope north of Pollachapuill croft and as a more scattered element of crag woodlands south of the public road at NC 106327.

NC13/NC23 – Assynt (Nedd and Ardvar woodlands), by Kylesku

Map references: NC 145317, NC 210326 (many other reported previously locations)
Population category: 3 (as seen) but 4 (on the basis of previous reports)

*Significant, but very scattered populations of aspen in steep inaccessible woodland around Loch Nedd and Loch Ardbhair and up Gleann Leireag and Gleann Ardbhair. Distinct stands were noticed on the “inward facing slopes” at the map references stated and small crag aspen could just about be made out at upper edges of the birch-rowan-hazel woodlands (e.g. at NC 147313 and NC 185329). Ground vegetation is a combination of heather, bracken and acid grasses throughout. Visit and photography were impaired by failing light and poor weather. **These woodlands deserve more attention for their aspen (perhaps a summer visit), but much ground is inaccessible.***

NC13/NC23 – Garbh Eilean, Duartmore, Loch na Bieste Brice, by Kylesku

Map references: NC 223338, NC 183373, NC 183395
Population category: 1

Small relict aspen populations previously reported which proved to be out of sight of the main road under the prevailing light and weather conditions. Air photo was checked for Duartmore, suggesting presence as pre-identified.

NC22/NC23 – Loch Glencoul and Loch Glendhu, by Kylesku

Inaccessible for present road-based survey – would require a long walk-in visit. Ground essentially inaccessible and airphoto inspection/boat survey would be needed. Air-photos examined, but don't really shed much light on extent of any aspen.

NC13 – Loch a’Mhuillin, by Kylesku

Map references: NC 164396

Population category: 2

Population of aspen within coastal oak-birch woodland nature reserve. Confirmed from a combination of binocular survey, SNH site management statement and leaflet.

Day 7 – Strath Tirry – Altnaharra – Strathnaver – Kyle of Tongue

NC51 – Strath Tirry (Rhian, Dalchork Forest), by Lairg

Map references: NC 562164

Population category: 1

Single mature aspen (dbh 20-30cm) in centre of wet pasture.

NC51/52 – Strath Tirry (Capulich and Allt Chaiseagail, Dalchork Forest), by Lairg

Map references: NC 519224, NC 583105

Population category: not found

Previously reported locations out of sight of the public road.

NC53 – Strath Vagastie, by Altnaharra

Map references: NC 565335 downstream to NC 573344

Population category: 2

Riparian population of small aspen trees, together with birch-alder woodland. Perhaps 20-30 individuals of dbh 10-20cm (F) and 20-30cm (O). No suckers seen. Rocky sides of gully along the River Vagastie. No aspen seen on lower Allt-na-h-Aire.

NC62 – Ben Klibreck/ Loch Choire woodlands, by Altnaharra

Inaccessible for present road-based survey – would require a long walk-in visit. Ground essentially inaccessible and airphoto inspection/boat survey would be needed. Air-photos checked, but not possible to distinguish aspen from birch on these ones.

NC63 – Loch Naver (Coill Ach' a' Chuil), by Altnaharra

Map references: NC 633374

Population category: 2

Binocular survey. Scattered small aspen among birch and rowan, especially along the upper edge crop of this extensive woodland on very steep slopes.

NC63 – Loch Naver (Grumbeg), by Altnaharra

Map references: NC 633382, NC 637383

Population category: 2

Small population of aspen among birch and alder along north shore of Loch Naver. Two groups each of 3 or 4 mature trees (dbh 10-20cm and 20-30cm) with a few suckers with dbh <10cm accompanying each. Grassy and rocky shore of the loch.

NC63 – Loch Naver (Achadh an Eas), by Altnaharra

Map references: NC 672378

Population category: 1 (possibly achieving 2)

A small group of aspen near the waterfall. Checked by binocular view and air photo. Look to be some 3-4 mature trees 20-30cm dbh or large and possibly some smaller.

NC64 – Strathnaver (Coille Reidh Loisgte, Dalvina), by Bettyhill

Map references: NC 697444

Population category: 4 (composite site) **[Candidate for more detailed inspection]**

Mature stands among slope birch-rowan-hazel woodland. Tall (~20m) and a mixture of 10-20cm and 20-30cm dbh. Little sign of regeneration. Some fallen deadwood. Ground vegetation primarily of moss with sparse acid grasses and bracken.

NC74 – Strathnaver (Inishlampie), by Bettyhill

Map references: NC 708458

Population category: 4 (composite site) **[Candidate for more detailed inspection]**

Mature stands among slope birch-rowan-hazel woodland. Tall (~20m) and a mixture of 10-20cm and 20-30cm dbh. Little sign of regeneration. Some fallen deadwood. Ground vegetation primarily of moss with sparse acid grasses and bracken.

NC74 – Strathnaver (Skail), by Bettyhill

Map references: NC 711465

Population category: 4 (composite site) **[Candidate for more detailed inspection]**

Mature aspen in small woodland on west side of river, but partially hidden from the road by topography. Easton reported 200 stems of up to 48cm dbh. Birch woodland with alder and aspen as a significant component. Needs further inspection to assess.

NC74 – Strathnaver (Eilean Garbh), by Bettyhill

Map references: NC 717476

Population category: 4 (composite site)

A single medium sized aspen seen amongst birch on heather-clad eyot. 10-20cm dbh.

NC74 – Strathnaver (Rhifail), by Bettyhill

Map references: NC 727494

Population category: 4 (composite site) [Candidate for more detailed inspection]

Drifts of medium-sized aspen (dbh 10-20cm and 20-30cm) among birch on slopes on the eastern bank at Rhifail. Might be 20-30 trees or more in total. Easton records a large tree (dbh 69cm) on the west bank also. Needs further inspection to assess.

NC75 – Strathnaver (Chealamy and Carnachy), by Bettyhill

Map references: NC 723505, NC 722512

Population category: 4 (composite site)

Two large crooked aspen at Carnachy (NC 722512) with dbh 30-40cm on a grass/bracken bank with birch west of the road. Numerous suckers 0-10cm dbh. A scatter of small trees at Chealamy east of the road among gorse 0-10cm/10-20cm (F). Active suckering at both locations but little in the way of deadwood interest.

NC75 – Strathnaver (Achargary), by Bettyhill

Map references: NC 723538

Population category: 1

A few small gnarled aspen <10cm dbh among birch on eastern bank. Not a major component in terms of Strathnaver. Previously reported aspen at NC 714538 not visible from the public road due to topography.

NC75 – Strathnaver (Skelpick), by Bettyhill

Map references: NC 717564

Population category: 4 (composite site) [Candidate for more detailed inspection]

A significant population of tall spindly aspen on grass/ bracken slopes above the east bank. Should be at least 50 stems present, mainly 10-20cm dbh. Otherwise mainly birch-hazel-rowan woodlands, with alder along the river. Does not appear to be much suckering or deadwood interest, but a closer inspection would be beneficial.

NC75 – Strathnaver (Achnabourin), by Bettyhill

Map references: NC 710588

Population category: 4 (composite site) [Candidate for more detailed inspection]

Aspen among scrub birch woodland on rolling ground between road and river. Easton reported two dozen stems reaching 30cm dbh. Could only see a few of these from the river but more are likely to be on the slope down to the river.

NC75 – Strathnaver (Leckfurin), by Bettyhill

Map references: NC 708595

Population category: 4 (composite site)

A row or hedge of 6-8 medium-sized aspen trees in a field below the road. Bushy crowns but dbh probably in the 10-20cm range for all trees. No young suckers seen.

NC76 – Strathnaver (Achina), by Bettyhill

Map references: NC 709604-703615

Population category: 4 (composite site)

Rows of medium-sized aspen (dbh 10-20cm/ 20-30cm (F)) along shoreline at bottom of bracken slope below road. Perhaps 10-15 trees present. A few suckers, but little deadwood interest. A few other birch etc present, but aspen most conspicuous.

NC76 – Clachan, by Bettyhill

Map references: NC 707622, NC 720620

Population category: 2

Small twisted aspen trees <10cm dbh on crags south of A836 and up Clachan Burn to the south. Heather, bracken and gorse vegetation, bare rock in places. Perhaps 10-15 individuals present in total, most of these on the crags by the road.

NC75 – Strathnaver (Apigill), by Bettyhill

Map references: NC 705572

Population category: not found

Previous reports of scattered aspen on the crags, but nothing actually seen.

NC66 – Airdtorrisdale, by Bettyhill

Map references: NC 673623, NC 678621

Population category: 3

Significant population of at least 30 aspen in woodland on both sides of the rocky valley above Airdtorrisdale. An outlying stand on the coast beyond the graveyard. Generally of very poor form and a mixture of 10-20cm/ 20-30cm dbh. Few if any suckers seen. Some deadwood and a somewhat moribund feel to the population. Woodland generally of the coastal birch-hazel-rowan scrub type with juniper/willow. Ground vegetation is a mosaic of acid grasses, bracken and heather up the slopes.

NC65 – Coldbackie/ Dalcharn, by Tongue

Map references: NC 618590

Population category: 1

Appear to be a few small crag aspen among birch on east-facing steep slope.

NC54 – Ben Loyal (Coille-na-Cuille and Creag an Dherue), by Tongue

Map references: NC 580504 to NC 544473

Population category: unconfirmed (might reach 1 or 2 upon closer inspection)

Previous reports of scattered aspen on the crags above this very long woodland. Out of effective binocular and telephoto range from public road and would require a very long walk in to get any closer. Air photo did not clarify aspen from birch matrix.

NC65 – Loch Loyal (Coille na Leitire Bige), by Tongue

Map references: NC 624508

Population category: 1

Binocular survey. Appear to be a few small crag aspen among grazed slope birchwood over bracken/fine grass. However difficult to distinguish from rowan.

NC55 – Kyle of Tongue (Caisteal Bharraich), by Tongue

Map references: NC 586560, NC 577567, NC 577564

Population category: 3

Frequent groups of aspen on both sides of the An Garbh-chnoc. Western face could only be view by binocular/ telephoto from far side of the Kyle – limited visibility. Woods are dominated by birch, rowan and hazel with some willow and hawthorn. Aspen midslope on the east and west and also along the coastal fringe to the west. Stems appear to be a mixture of 10-20cm and 20-30cm dbh, possibly some larger. A total of 30-50 stems is likely, but there could be more. Bracken dominated the flora. Little chance to assess suckering and deadwood interest from the distance and the western face of the site is not really accessible on the ground due to steepness.

NC55 – Kyle of Tongue (Kinloch River/ Lodge), by Tongue

Map references: NC 557523

Population category: 2

A small stand of aspen above the road adjacent to the Kinloch bridge. Perhaps 6-8 stems among bracken and gorse, all <10cm dbh or 10-20cm in some cases. Some birch and alder locally along the river.

NC54 – Kyle of Tongue (Carn a Mhadaidh), by Tongue

Inaccessible for present road-based survey – would require a long walk-in visit. Ground essentially inaccessible and airphoto inspection would be needed. Air-photo examined suggesting some aspen, especially at the far southern end of the woodland.

NC55 – Kyle of Tongue (An Garbh-allt), by Tongue

Map references: NC 553543

Population category: 1

An handful of aspen among birch-rowan-willow woodland up rocky burn-sides. One larger tree 20-30cm dbh, heavily branching. Others small and inconspicuous. May be further trees out of sight up the burn to correspond the previously reported 8 stems. Surrounding vegetation is of bracken and heather.

NC55 – Kyle of Tongue (Coill' Ardachaidh/ Creag an t-Tralghean), by Tongue

Map references: NC 573554

Population category: 2 (but may achieve 3 upon closer inspection)

Distant binocular/ telephoto survey, but did pick out stands of aspen along the shore and crags above and among birch. Essentially an extension southwards from Caisteal Bharraich site. Trees appeared to medium-large 20-30cm dbh, perhaps 30-40cm. 20-30 stems at least are present, perhaps many more. Woodland dominated by birch with a heathery looking understorey. Little chance to assess suckering and deadwood interest from the distance and the western face of the site is not really accessible on the ground due to steepness.

NC55 – Kyle of Tongue (Allt Loch Fhionnaich), by Tongue

Map references: NC 563566

Population category: 1

One tiny aspen seen among birch woodland up rocky burn gully. Others may be out of sight further up, but at most a very minor population. Heathery vegetation. Burning.

NC55 – Kyle of Tongue (Achuvoldrach Burn), by Tongue

Map references: NC 567592

Population category: 2

A decent small population of ~20 aspen along the rocky sides of Achuvoldrach burn gully. Most just above the small bridge on the southern bank. Typically craggy trees of 10-20cm dbh with a few small suckers <10cm. Bracken comes down to the banks. Woodland dominated by birch, rowan and willow, with occasional oak. Possibly little bits and pieces of deadwood.

Day 8 – Loch Shin – Loch Stack – Laxford Bridge – Durness – Eriboll – Hope

NC50 – Loch Shin (Claonel), by Lairg

Map references: NC 567048

Population category: 1

A hedgerow of medium-sized aspen trees lying east of the minor road to Sallachy. 20-30cm dbh. Rough grazing and gorse scrub. No sign of regeneration.

NC50 – Loch Shin (Little Loch Shin), by Lairg

Map references: NC 583053

Population category: 1

A small number of medium-sized aspen trees in a private garden above the main road. 20-30cm dbh. Poor form. Managed garden context. No sign of regeneration.

NC50 – Loch Shin (Lairg Power Station), by Lairg

Map references: NC 578069

Population category: 1

A single elegant straight aspen in garden of power station keeper's house. 20-30cm dbh. 10m ht. Managed garden context.

NC50 – Loch Shin (Lairg Lodge), by Lairg

Map references: NC 571077

Population category: 2

A small stand of aspen in rough woodland above the main road. One older stem 20-30cm dbh and a handful of tall spindly younger stems 10-20cm dbh. Possibly some young suckers. Also perhaps a few young trees across the road, further north. Birch woodland context, some young pine, bracken and rough grasses below.

NC51 – Loch Shin (Collabol), by Lairg

Map references: NC 562101

Population category: not found

Previous report of a hedge of 6 small trees – not relocated on this occasion.

NC51 – Loch Shin (Achnairn), by Lairg

Map references: NC 552127

Population category: 1

A handful of small aspen trees on a grassy roadside verge (east of road). All with dbh 10-20cm, heavily branched.

NC51 – Loch Shin (West Shinness), by Lairg

Map references: NC 533147

Population category: 1

One medium sized aspen (20-30cm dbh) with a group of suckers (<10cm dbh), on the loch edge below a belt of conifers. Birch in the surrounds.

NC42 – Loch Shin (Allt an Laoigh, Fiag Bridge), by Lairg

Map references: NC 489200

Population category: not found

Previous report of a single tree by a burn, not relocated on this occasion.

NC32 – Loch Shin (Coille a Bhad Leith/ Allt Sgialach Coire), by Lairg

Map references: NC 373247, NC 380282

Population category: 2

Binocular/ air photo survey. Small aspen likely among birch scrub. <10cm dbh.

NC23/33 – Loch More (Lochmore Lodge, Achfary), by Laxford Bridge

Map references: NC 300386, NC 297387

Population category: 2

Some 15 spindly aspen trees above the main road in two groups. Mainly 10-20cm dbh with occasional 20-30cm. Possibly some fine suckers among scrub of birch etc. On the edge of a plantation/ policy woodland south-east and north of the lodge, partly felled in recent times.

NC24 – Loch Stack (Leitir-an-Staca), by Laxford Bridge

Map references: NC 284423 to NC 266436

Population category: 1

A very few scattered crag aspen amongst birch-rowan-willow scrub. <10cm dbh.

NC24 – Laxford Bridge (Cnoc nan Cro/ Creag na Suileag), by Laxford Bridge

Map references: NC 240467

Population category: 2

Fairly well developed suckering aspen on heathery crags north of the road with scrub birch. At least a dozen stems, mainly <10cm dbh, occasionally 10-20cm dbh.

NC24 – Laxford Bridge (River Laxford and Bay), by Laxford Bridge

Map references: NC 237468, NC 235470, NC 225475, NC 227476

Population category: 2 (bordering on a 3)

Small populations of gnarled aspen along the river bank on either side of the bridge and on coastal crags downstream at NC 225475. Probably at least 30 stems in total with active suckering in parts. Mainly <10cm dbh, occasional 10-20cm/ 20-30cm. Together with small birch above the bridge. Vegetation a mosaic of heather, bracken and fine grasses. In danger of bankside under-cutting in places.

NC24 – Laxford Bridge (Badnabay and Bad na Baighe Forest), by Laxford Bridge

Map references: NC 238460, NC 235453, NC 223467

Population category: 3

Small populations of aspen on crags and gorge sides behind the plantation forest (binocular/ telephoto survey) and on crags immediately south of road at NC 223467. Many <10cm dbh, but also a scatter of 10-20cm and 20-30cm crag trees. Associated with scrub birch and rough heathery vegetation with much bare rock. Some suckering on the roadside crags. Looks like some deadwood stems at back of plantation forest.

NC24 – Laxford Bridge (Loch na Claise Fearnna), by Laxford Bridge

Map references: NC 200467

Population category: 2

Collection of small gnarled aspen on rocky island in middle of loch west of road.

NC25 – Ardmore, by Rhiconich

Map references: NC 209513 (and likely further west)

Population category: 2 (may achieve a 3 for the whole of Ardmore)

Binocular survey. Aspen among birch woodland on steep east-facing slopes. Believed to be further aspen throughout Ardmore, no visible from the public road/ inaccessible.

NC25 – Loch Inchard (Achlyness and Achriesgill), by Rhiconich

Map references: NC 248528, NC 248544, NC 234548 (and possibly others to west)

Population category: 2 (may achieve a 3 for the whole of Loch Inchard)

Small coastal scrub populations on rocks, crags and steep coastal grasslands. Generally among scrub birch-rowan woodland. Mainly 0-10cm and 10-20cm dbh. Possible a few older specimens reaching 20-30cm. Believed also to be small suckers.

[NC15/25/16/26 – Oldshoremore and Sandside Bay area, Kinlochbervie](#)

A variety of small relict suckering populations notified by JMT. Not inspected during the present work due to remoteness/ difficulty in relocation.

NC36 – Kyle of Durness (River Dionard), by Durness

Map references: NC 360610, NC 363604

Population category: 2

Small populations of aspen along the banks of the River Dionard below the bridge at Drochaid Mhor and up a side stream (Allt Loch na Seilg) to the east. Likely to be at least 15-20 small crag trees (dbh mainly 0-10cm and 10-20cm, occasional 20-30cm). Associated with birch, rowan and willow scrub. Some small deadwood apparent.

NC36 – Kyle of Durness (Keoldale ferry to Achimore), by Durness

Map references: NC 367663, 363667 (and further to the north-west along the shore)

Population category: 2 (perhaps verging on a 3 all along the coastal crags)

Frequent patches of small aspen trees among coastal birch-rowan scrub along cliffs and steep foreshore. Likely to be mainly 0-10cm and 10-20cm. Binocular survey.

NC46 – Loch Eriboll (Ceannabeinne), by Durness

Map references: NC 442657

Population category: 2

An attractive small population of spindly aspen on very steep coastal slope. Abundant suckering regeneration. Mainly <10cm dbh, but occasionally 10-20cm. 1-5m ht. No other tree species present. Grassy bank with sparse bracken fronds.

NC35 – Loch Eriboll (Strabeg and Coille na Fearn), by Durness

Map references: NC 387514 (extending round to NC 383487 out of sight)

Population category: 2 (might achieve 3 upon closer inspection)

Aspen present as a minor percentage (ITE estimated 3%) of extensive birch-rowan-hazel woodlands on very steep slopes. Although only a binocular survey was possible on this occasion, a few likely aspen could be picked out, midslope.

NC35 – Loch Eriboll (Creag na Faolinn), by Durness

Map references: NC 397539

Population category: 1

Very occasional small crag aspen (dbh <10cm) above birch-rowan woodland on very steep coastal slope. ITE estimate of 2% canopy fraction seems a bit optimistic now.

NC45 – Loch Eriboll (Eriboll), by Durness

Map references: NC 428557, NC 433559

Population category: 1

Small amounts of crag aspen amongst birch-rowan-hazel-holly scrub woodland.

NC45 – Loch Eriboll (Kempie), by Durness

Map references: NC 445578

Population category: 1

A small stand of tall straight aspen below the road, with some ash. At least 3-4 trees of 20-30cm dbh, possibly more. Bracken dominated ground vegetation.

NC46 – Loch Hope (Inverhope), by Tongue

Map references: NC 475607, NC 475605

Population category: 2 (perhaps bordering on a 3)

One distinct clonal patch of some 30 spindly aspen (<10cm dbh) on scree slope with patchy heather. A scatter of other trees among birch woodland nearer the road/bridge, some perhaps achieving 20-30cm dbh.

NC45 – Loch Hope (Arnaboll Wood), by Tongue

Map references: NC 467586

Population category: 3

Various patches of aspen throughout this large slope birch woodland, particularly associated with crags and rock. Previous estimate of ~30-40 stems. Looks predominantly 10-20cm, some 20-30cm. Remote binocular survey across loch does not allow for suckering assessment. Context of birch, rowan and hazel with some holly and willow. Heather, bracken and acid grassland mosaic ground vegetation.

NC45 – Loch Hope (Creag Bhreag), by Tongue

Map references: NC 455533

Population category: 2

A small coastal fringe population of aspen, amongst birch-hazel-rowan-alder. Perhaps around 10 small-medium trees up to 20cm dbh. Bracken ground vegetation. Distant binocular survey across loch.

NC45 – Loch Hope (Allt a'Mhuillin), by Tongue

Map references: NC 475588

Population category: not found

Previous reports of aspen along these burns, but not visible from the road. Possibly a few small trees among dense birch.

NC45 – Loch Hope (Ben Hope – Creag Merkan, Cnoc Bacach), by Tongue

Map references: NC 466537, NC 462531, NC 461517, (NC 456517?)

Population category: 2 (perhaps achieving a 3 if extended to Alltnacailich)

Populations of aspen among birch-hazel-rowan woodland on steep slopes above the minor public road, especially on crags. ITE estimated canopy fraction at 2-7%. Also a previous report on the western (loch-facing) side of Cnoc Bacach, beyond plantation. Trees mainly 0-10cm and 10-20cm dbh with occasional 20-30cm higher on crags. Some suckering.

NC44 – Loch Hope (Alltnacailich, An t-Sean Lughard, Sail nan Aighean), by Tongue

These populations could not be examined as the public road had flooded at NC 463474, preventing progress. An t-Sean Lughard population visible on the air-photo.