

Site Summary Report:

Corraun Plateau cSAC (000485)

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INTRODUCTION

Corraun Plateau candidate Special Area of Conservation (cSAC) was selected as a pilot survey area for the Scoping study and pilot survey of upland habitats in Ireland (Perrin *et al.* 2009). Contained here is a summary of the field survey results including site statistics and habitat maps. Details of the conservation status assessments carried out for the Annex I habitats occurring on the site are also presented but it should be noted that a full assessment of the Annex I habitats was not completed due to the survey being part of the pilot survey. Data are, however, presented to demonstrate the procedure of conservation status assessments and should not be considered as a definitive condition assessment of the Corraun site. The survey methodology employed in the Pilot Survey of Upland Habitats in Ireland is detailed in the project report (Perrin *et al.* 2009). This site summary was prepared as part of the scoping study and pilot survey of upland habitats in Ireland and has been prepared to demonstrate the requirements for site summary reports. Further guidance can be found in the Guidelines for a national survey and conservation assessment of upland vegetation and habitats in Ireland (Perrin *et al.* 2010).

SITE DESCRIPTION

The Corraun Plateau is located on the Corraun Peninsula, south-east of Achill Island, County Mayo. It has been designated as a candidate Special Area of Conservation (cSAC site code 000485) and its qualifying interests are listed in Table 1. At its highest point, the plateau reaches 541 m. The geology is varied but is predominantly composed of Dalradian schist and quartzite. There are well developed corries on the northern side of the massif.

The Corraun survey area (Fig. 1) corresponded to the boundaries of the Corraun Plateau cSAC and covered an area of 3,886.9 ha. It encompassed the plateau itself, Corraun Hill and much of the surrounding slopes, stretching as far as the coast on the southern side.

Table 1 Qualifying interests (QI) of Corraun Plateau cSAC. * Priority habitat

Code	Annex I habitat	
4010	Northern Atlantic wet heaths with <i>Erica tetralix</i>	QI
4030	European dry heaths	QI
4060	Alpine and Boreal heaths	QI
5130	<i>Juniperus communis</i> formations on heaths/calcareous grasslands	QI
7130	Blanket bog (* active only)	QI
3110	Oligotrophic waters containing very few mineral of sandy plains (<i>Littorelletalia uniflorae</i>)	QI

FIELD SURVEY RESULTS

Summary description

The survey area at Corraun is described here using the habitat classification system described in Fossitt (2000). Further information on Annex I habitats can be found in the Interpretation Manual of European Union Habitats (Anon 2007).

The site contained a varied mosaic of upland habitats but was dominated by **Wet heath (HH3)**, which dominated the western, southern and eastern slopes but was largely absent from the plateau. **Montane heath (HH4)** was frequent on the plateau and upper slopes, particularly to the north. **Lowland blanket bog (PB3)** was most frequent on the lower slopes to the east and south of the site. **Siliceous scree and loose rock (ER3)** were particularly dominant on the Cuillaloughaun ridge, on the upper northern slopes and on Corraun Hill. **Dry siliceous heath (HH1)** was scattered throughout but was most frequent to the north of the site. **Upland blanket bog (PB2)** occurred on the upper slopes throughout the site. **Eroding blanket bog (PB5)** was present and, at higher altitudes, may have occurred as a result of natural processes. However, on the flat areas to the north of the site, some areas had been severely eroded due to sheep trampling, particularly the “bottleneck” between Lough Laur and the edge of the **Conifer plantation (WD4)** (see Fig. 1). Areas of **Cutover bog (PB4)** were also present, ranging from active to old, abandoned, re-vegetating cutovers. Small areas of **Dry-humid acid grassland (GS3)**, **Poor fen and flush (PF2)**, **Exposed siliceous rock (ER1)**, **Dystrophic lakes (FL1)**, **Non-calcareous springs (FP2)** and other habitats were also present. Hepatic mat communities occurred as an elements of **Dry siliceous heath (HH1)** and **Montane heath (HH4)** on the plateau; the slopes and within the corries of Corraun. The rare liverwort *Adelanthus lindenbergianus* was recorded in hepatic mats during this survey. *Erica erigena*, which appears on the Proposed Red Data List of Vascular Plants in Ireland (Anon. 2005), was recorded on the lower slopes in the east and south of the site, where it is locally abundant.

Annex I habitats

A total of 15 Annex I habitats were recorded at Corraun, covering over 80% of the survey area (Table 2). The dominant Annex I habitat was **Wet heath (4010)**, which covered over 50% of the survey area. The next most extensive Annex I habitat was **Blanket bog (7130)**, followed by **Alpine and boreal heath (4060)** and **Dry heath (4030)**. A small area of the site was described as **Siliceous alpine and boreal grassland (6150)**, a habitat type which had not previously been recorded in the Republic of Ireland (see Table 2).

The Annex I habitat ***Juniperus communis* formations on heaths/calcareous grasslands (5130)** is listed as a qualifying interest for the Corraun Plateau SAC (Table 1). Indeed, montane heath containing *Juniperus communis* subsp. *nana* was recorded during this survey, primarily on the southern slopes. However, detailed consideration of the definitions and interpretation of Annex I habitats (Anon. 2007), together with common practice in Britain and Germany (Rodwell 1991,

Hauke *et al.* 2000), suggests that this habitat should instead be categorised as the Annex I habitat **Alpine and boreal heath (4060)**. Therefore in Table 2, the extent of **Alpine and boreal heath (4060)** includes the area of montane heath with *Juniperus communis* subsp. *nana*, but the figure for the extent of this habitat is also presented separately at the foot of the table.

Areas of blanket bog that were recorded were considered to correspond to the priority Annex I habitat **Active Blanket Bog (7130)**. Inactive blanket bog was not consistently recorded as an Annex I habitat during fieldwork and therefore is not included on Table 2.

Detailed survey of aquatic habitats was not within the remit of the survey. As such lakes were, in some instances surveyed only to level 2 of the Fossitt (2000) classification **Lakes and ponds (FL)**. **Acid oligotrophic lakes (FL2) was not recorded**. It was therefore not possible to assess the cover of the Annex I habitat **Oligotrophic waters containing very few mineral of sandy plains (*Littorelletalia uniflorae*) (3110)**.

Table 2 Extent of Annex I habitats within the Corraun survey area

	Annex I habitat	Total area (ha)	% of site
3160	Dystrophic lakes	35.6	0.9
3260	Floating river vegetation	2.3	0.06
4010	Wet heath	2077.9	53.5
4030	Dry heath	209.9	5.4
4060	Alpine and boreal heath†	281.9	7.3
6150	Siliceous alpine and boreal grassland	33.6	0.9
6230	Species-rich <i>Nardus</i> upland grassland	0.1	0.001
7130	* Blanket bog	444.0	11.4
7140	Transition mires and quaking bogs	0.3	0.01
7150	<i>Rhynchosporion</i> depressions	6.5	0.2
7230	Alkaline fens	2.3	0.1
8110	Siliceous scree	28.9	0.7
8210	Calcareous rocky slopes	0.1	0.002
8220	Siliceous rocky slopes	0.9	0.02
91A0	Old oak woodlands	2.9	0.1
	Non-Annex I habitats	759.8	19.5
	<i>Total site area</i>	3886.9	
	<i>Total Annex I habitats</i>	3127.1	80.5
	† Includes montane heath with <i>Juniperus communis</i> subsp. <i>nana</i>	139.5	3.6

Maps and Statistics

A total of 31 Fossitt habitats were recorded from Corraun. Details of the area of each of these habitats are given in Table 3. The most extensive of these was **Wet heath (HH3)**, followed by **Montane heath (HH4)**, **Lowland blanket bog (PB3)**, **Siliceous scree and loose rock (ER3)**, **Dry heath (HH1)** and **Upland blanket bog (PB2)**.

It should be noted that the area calculations presented in Tables 2 and 3 were based on a vertical projection, which may have resulted in some underestimation of the area of habitats that tend to occur on steep slopes, such as **Siliceous rocky slopes (8220)**.

Polygons were digitised within the survey area using aerial photographs as the mapping base. Polygons were delineated on the basis of consistent vegetation mosaics and, frequently, consistent topography. The dominant Fossitt habitat types for Corraun survey area are shown in Fig. 2. Maps showing the dominant Annex I habitat types are presented in Fig. 3. It must be remembered that these maps display the dominant habitats only and so do not fully convey the complexity of the site, as each polygon may contain an intricate mosaic of several habitats (see Perrin *et al.* 2009, section 2.6.1 for additional information on this approach). The extent of selected Fossitt habitats is shown in the graduated maps (figs 4a – 4f). These demonstrate the complexity of the habitat mosaics within the site which is masked in the overview presented in the maps showing only the dominant habitats.

Table 3 Extent of Fossitt (2000) habitats within the Corraun survey area

	Fossitt habitat	Total area (ha)	% of site
BL3	Buildings and artificial surfaces	19.1	0.5
CB1	Shingle and gravel banks	2.7	0.1
ED1	Exposed sand, gravel or till	56.8	1.5
ED3	Recolonising bare ground	1.2	0.03
ER1	Exposed siliceous rock	43.9	1.1
ER2	Exposed calcareous rock	0.2	0.004
ER3	Siliceous scree and loose rock	280.4	7.2
FL1	Dystrophic lakes	35.6	0.9
FL4	Mesotrophic lakes	0.9	0.02
FL	Other freshwater lakes and ponds	9.4	0.2
FP2	Non-calcareous springs	4.3	0.1
FW1	Eroding/upland rivers	2.3	0.1
GS3	Dry-humid acid grassland	67.2	1.7
GS4	Wet grassland	3.7	0.1
HD1	Dense bracken	26.7	0.7
HH1	Dry siliceous heath	206.7	5.3
HH3	Wet heath	2007.9	51.7
HH4	Montane heath	416.5	10.7
LR2	Moderately exposed rocky shores	37.0	1.0
PB2	Upland blanket bog	187.1	4.8
PB3	Lowland blanket bog	287.4	7.4
PB4	Cutover bog	34.9	0.9
PB5	Eroding blanket bog	74.3	1.9
PF1	Rich fen and flush	19.7	0.5
PF2	Poor fen and flush	57.5	1.5
PF3	Transition mire and quaking bog	0.4	0.01
WD4	Conifer plantation	1.5	0.04
WN1	Oak-birch-holly woodland	2.9	0.1
WS1	Scrub	6.2	0.2
WS2	Immature woodland	8.5	0.2
WS3	Ornamental/non-native shrub	1.9	0.05
<i>Total site area</i>		<i>3886.9</i>	

Presented in Figs 5a-5i are a series of field maps which show the polygons for the survey area over aerial photographs. These maps are intended to assist with future survey work within the cSAC. Further guidance on what should be included in these maps is given in Perrin *et al.* (2010).

Conservation assessment

A total of 66 relevés were recorded within the Corraun survey area and were utilised in the vegetation analysis and provisional classification of upland habitats (Perrin *et al.* 2009).

It should be noted that these data are presented in order to demonstrate the procedure of applying the conservation status assessment and should not be considered as a definitive condition assessment of the Corraun site. A summary of all monitoring stop results for Corraun is presented in Table 4. Habitats were only given an overall assessment for structure and function if four or more monitoring stops had been recorded as this was regarded as a threshold for sufficient data. The main negative impacts recorded at Corraun were intensive sheep grazing and erosion. Hand cutting of peat was recorded within areas of **Blanket bog (7130)** and **Rhynchosporion depressions (7150)**. The invasive non-native species *Rhododendron ponticum* and *Campylopus introflexus* were recorded in degraded areas of **Wet heath (4010)** and **Dry heath (4030)** respectively. Change in the area of individual habitats was not assessed as detailed data on the past extent of the relevant habitats were not available. This resulted in there being insufficient data for overall assessments for many of the habitats. Gross changes in area can be determined by viewing the 2000 and 2005 aerial photos and recording any changes. The overall assessment for **Wet heath (4010)**, **Dry heath (4030)** and **Blanket bog (7130)** were tentatively categorised as Unfavourable – Bad overall and **Alpine and boreal heath (4060)** was tentatively categorised as Unfavourable – Inadequate. A summary of the results for Corraun is given in Table 5.

Table 4 Assessment of monitoring stops for each assessed Annex I habitat at Corraun. Where more than four stops were conducted for a habitat, structure and function status was assessed: green indicates Favourable, amber indicates Unfavourable – Inadequate and red indicates Unfavourable – Bad.

Habitat Code	Habitat	Total no. stops	No. stops that passed
4010	Atlantic wet heath	15	14
4030	European dry heath	4	1
4060	Alpine & boreal heath	16	14
* 6230	<i>Nardus</i> grassland	1	0
* 7130	Blanket bog	13	13
7150	<i>Rhynchosporion</i> depressions	2	2
8110	Siliceous scree	1	1
8210	Calcareous rocky slopes	0	0
8220	Siliceous rocky slopes	0	0

Table 5 Future prospect assessments for Annex I habitats at Corraun (as entered on the NPWS database). No assessments were made of Calcareous rocky slopes (8210) or Siliceous rocky slopes (8220).

NSUH Site No.	Designated site No.	Annex I Code	Impact Code	Intensity	Influence	% Habitat Area	Trend	Source
2	485	4010	A04.01.02	M	Negative	100%	Insufficient data	Inside
2	485	4010	K01.01	M	Negative	20%	Insufficient data	Inside
2	485	4010	I01	L	Negative	1%	Insufficient data	Inside
2	485	4030	A04.01.02	H	Negative	100%	Insufficient data	Inside
2	485	4030	I01	L	Negative	2%	Insufficient data	Inside
2	485	4060	A04.01.02	M	Negative	100%	Insufficient data	Inside
2	485	6230	A04.01.02	M	Negative	100%	Insufficient data	Inside
2	485	7130	A04.01.02	M	Negative	100%	Insufficient data	Inside
2	485	7130	C01.03.01	M	Negative	20%	Insufficient data	Inside
2	485	7130	K01.01	H	Negative	10%	Insufficient data	Inside
2	485	7150	A04.01.02	M	Negative	15%	Insufficient data	Inside
2	485	8110	X		Neutral	100%	Insufficient data	
A04.01.02:		Intensive sheep grazing						
C01.03.01:		Hand-cutting of peat						
I01:		Invasive non-native species						
K01.01:		Erosion						
X:		No impacts						

Table 6 Summary of assessments for Annex I habitats at Corraun.

Habitat Code	Area (ha)	Area	Future Prospects	Structure & Functions	Overall Score
4010	2077.9	Insufficient data	Unfavourable-bad	Unfavourable-inadequate	Unfavourable-bad
4030	209.9	Insufficient data	Unfavourable-bad	Unfavourable-bad	Unfavourable-bad
4060	281.9	Insufficient data	Unfavourable-inadequate	Unfavourable-inadequate	Unfavourable-inadequate
6230	0.1	Insufficient data	Unfavourable-inadequate	Insufficient data	Insufficient data
7130	444.0	Insufficient data	Unfavourable-bad	Favourable	Unfavourable-bad
7150	6.5	Insufficient data	Unfavourable-inadequate	Insufficient data	Insufficient data
8110	28.9	Insufficient data	Favourable	Insufficient data	Insufficient data
8210	0.1	Insufficient data	Insufficient data	Insufficient data	Insufficient data
8220	0.9	Insufficient data	Insufficient data	Insufficient data	Insufficient data

REFERENCES

- Anonymous (2005). Proposed Red Data List of Vascular Plants in Ireland. National Parks & Wildlife Service, Dublin. (<http://www.botanicgardens.ie/gspc/pdfs/rdboct2005.xls>)
- Anonymous (2007). Interpretation manual of European Union habitats. EUR 27. European Commission, DG Environment.
- Fossitt J. (2000) A Guide to Habitat in Ireland. The Heritage Council, Kilkenny.
- Perrin, P.M., O'Hanrahan, B., Roche, J.R., & Barron, S.J., (2009). Scoping Study and Pilot Survey for a national survey and conservation assessment of upland habitats and vegetation in Ireland. National Parks and Wildlife Service, Department of Environment, Heritage and Local Government, Dublin, Ireland.
- Perrin, P.M., Barron, S.J., Roche, J.R. & O'Hanrahan, B. (2010) Guidelines for a national survey and conservation assessment of upland vegetation and habitats in Ireland. Version 1.0. *Irish Wildlife Manuals*, No. XX. National Parks and Wildlife Service, Department of Environment, Heritage and Local Government, Dublin, Ireland.
- Rodwell, J.S. (ed.) (1991). British Plant Communities Volume 2: Mires and Heaths. Cambridge University Press, Cambridge.
- Hauke, U., Riecke, U., Schröder, E., & Ssymank, A. (2000). Die Umsetzung des Naturschutzrechtes der Europäischen Union in Deutschland. Bundesamt für Naturschutz, Bonn.

Figure 1 Corraun Plateau cSAC (000485) and survey area boundary

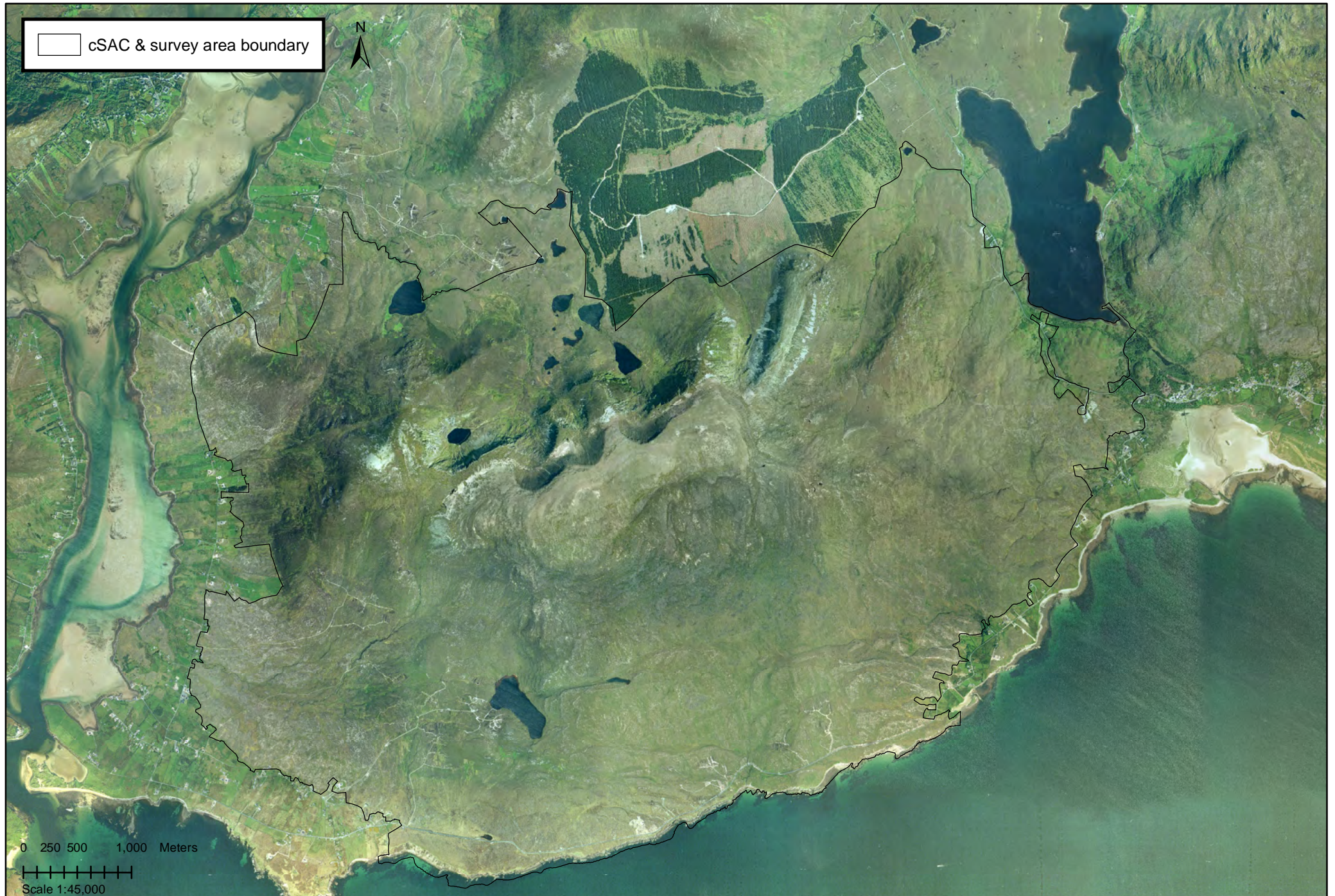


Figure 2 Dominant Fossitt habitats within Corraun Plateau cSAC (000485) survey area

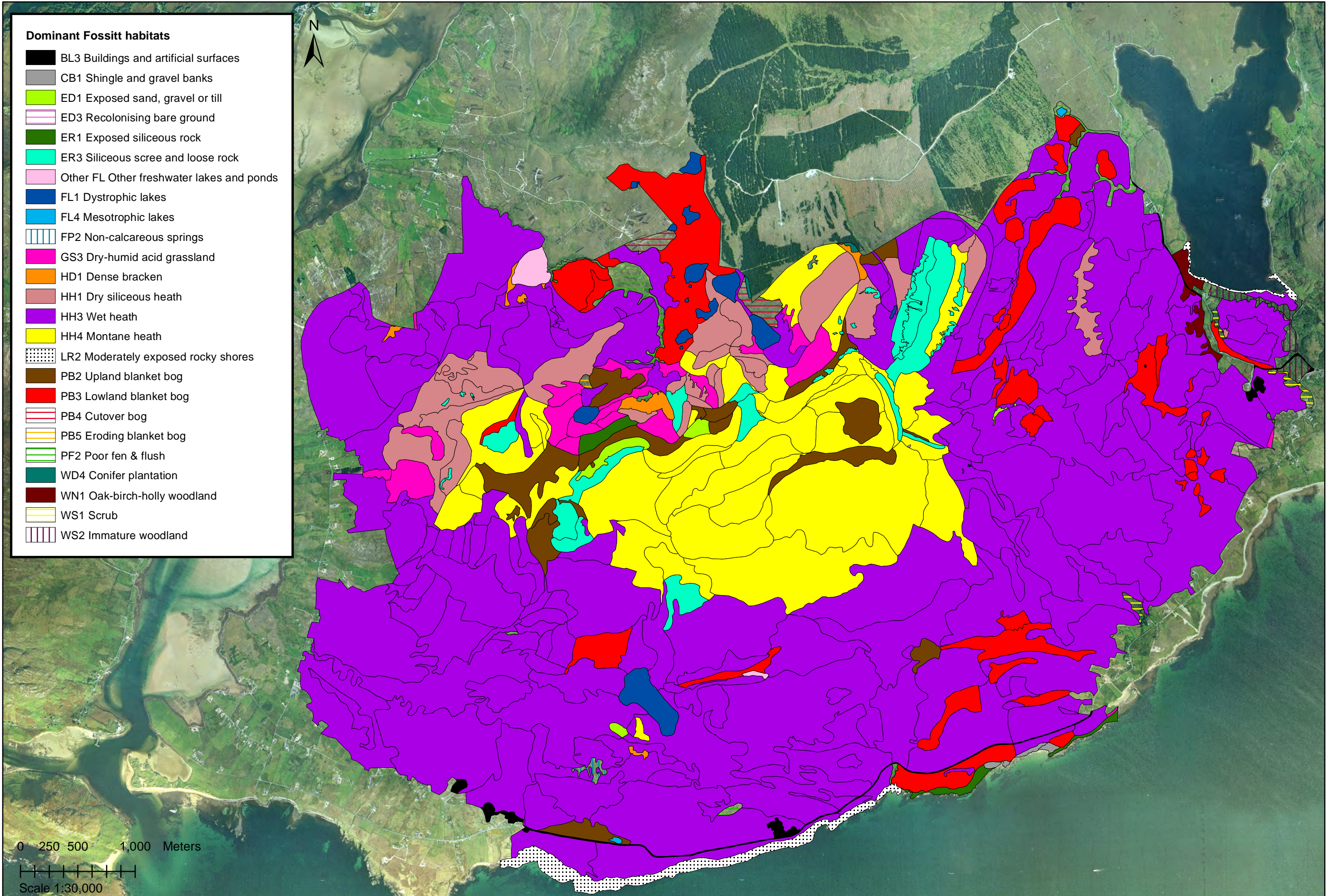


Figure 3 Dominant Annex I habitats within Corraun Plateau cSAC (000485) survey area

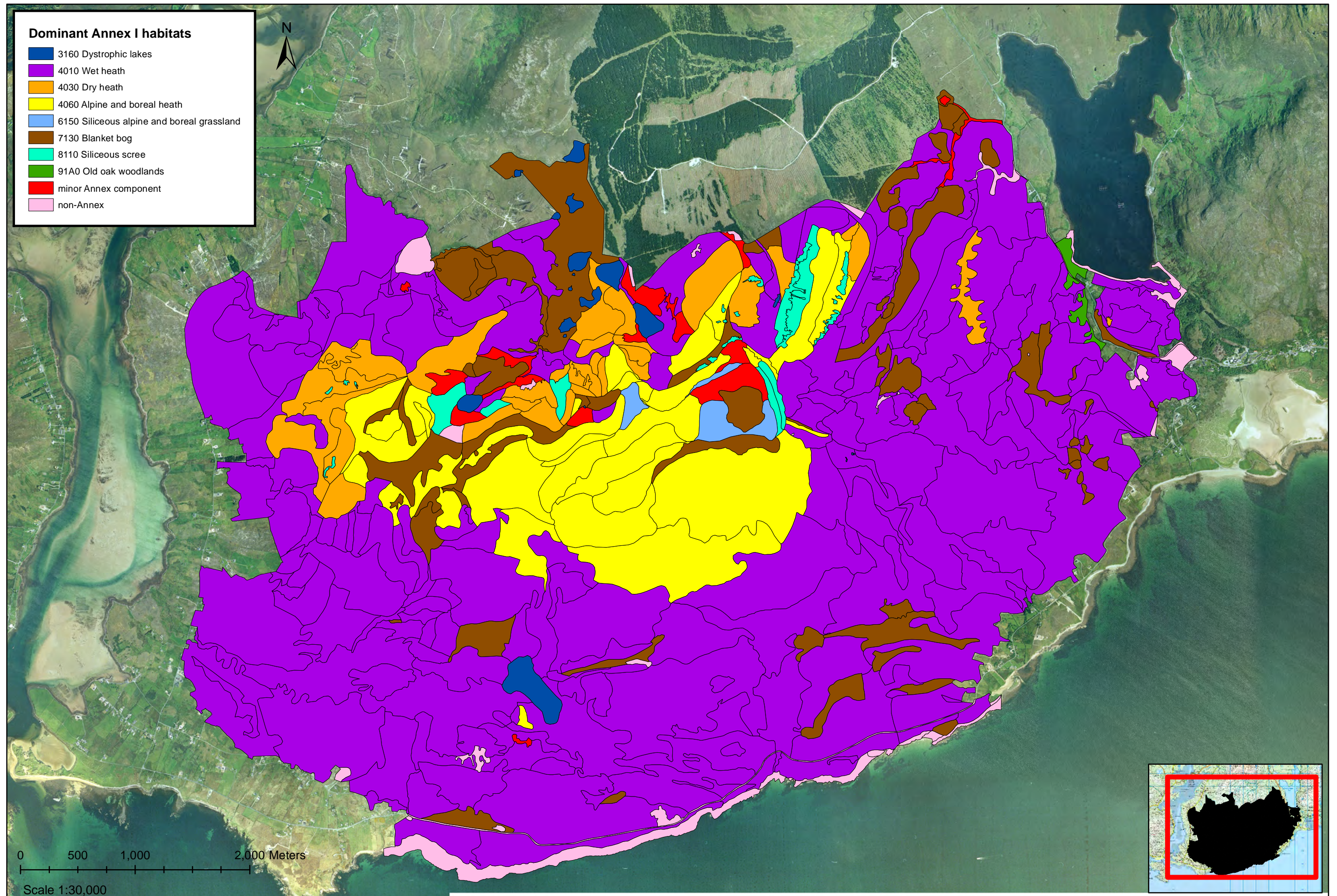


Figure 4a Extent of ER3 siliceous scree and loose rock within Corraun Plateau cSAC (000485) survey area

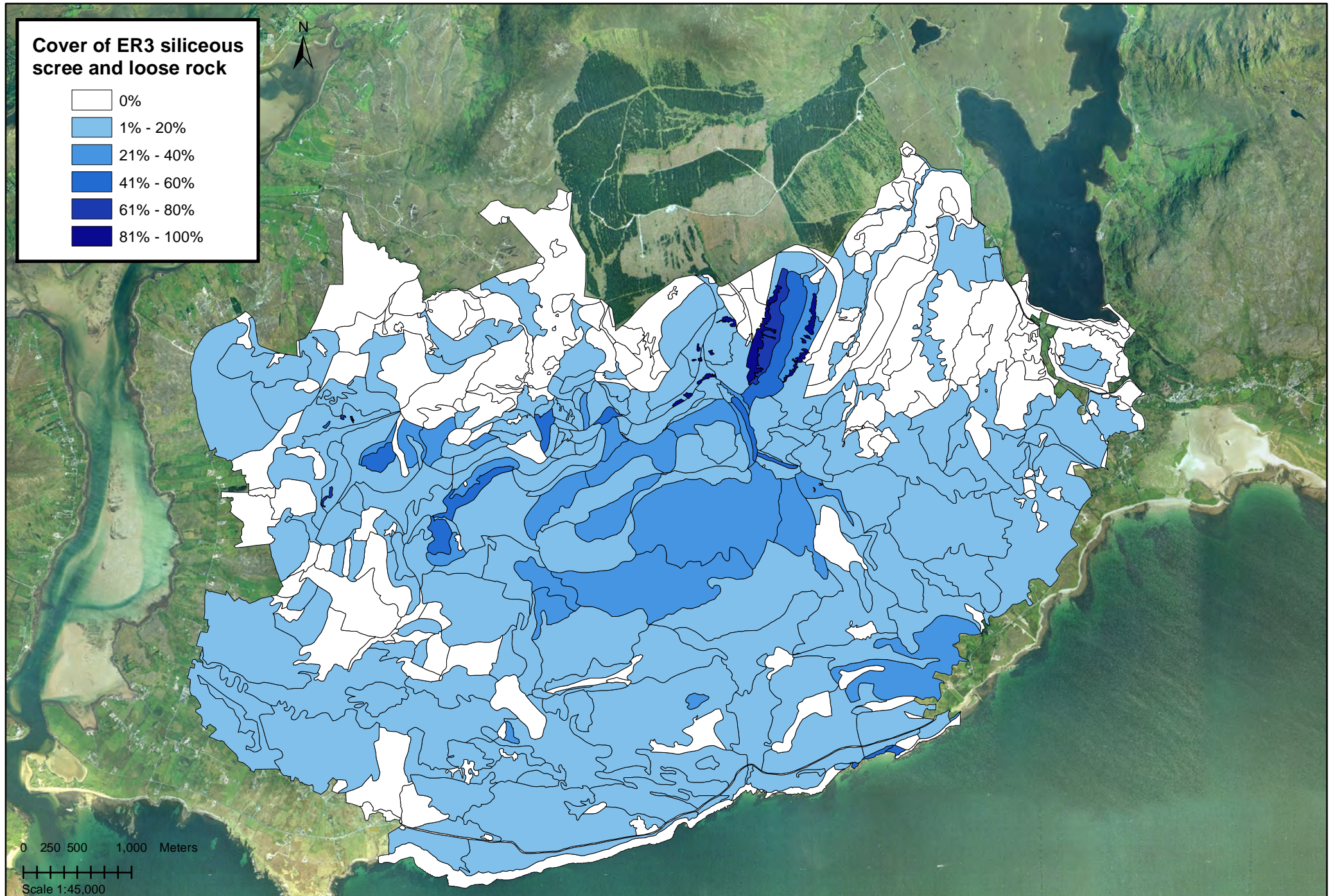


Figure 4b Extent of HH1 dry siliceous heath within Corraun Plateau cSAC (000485) survey area

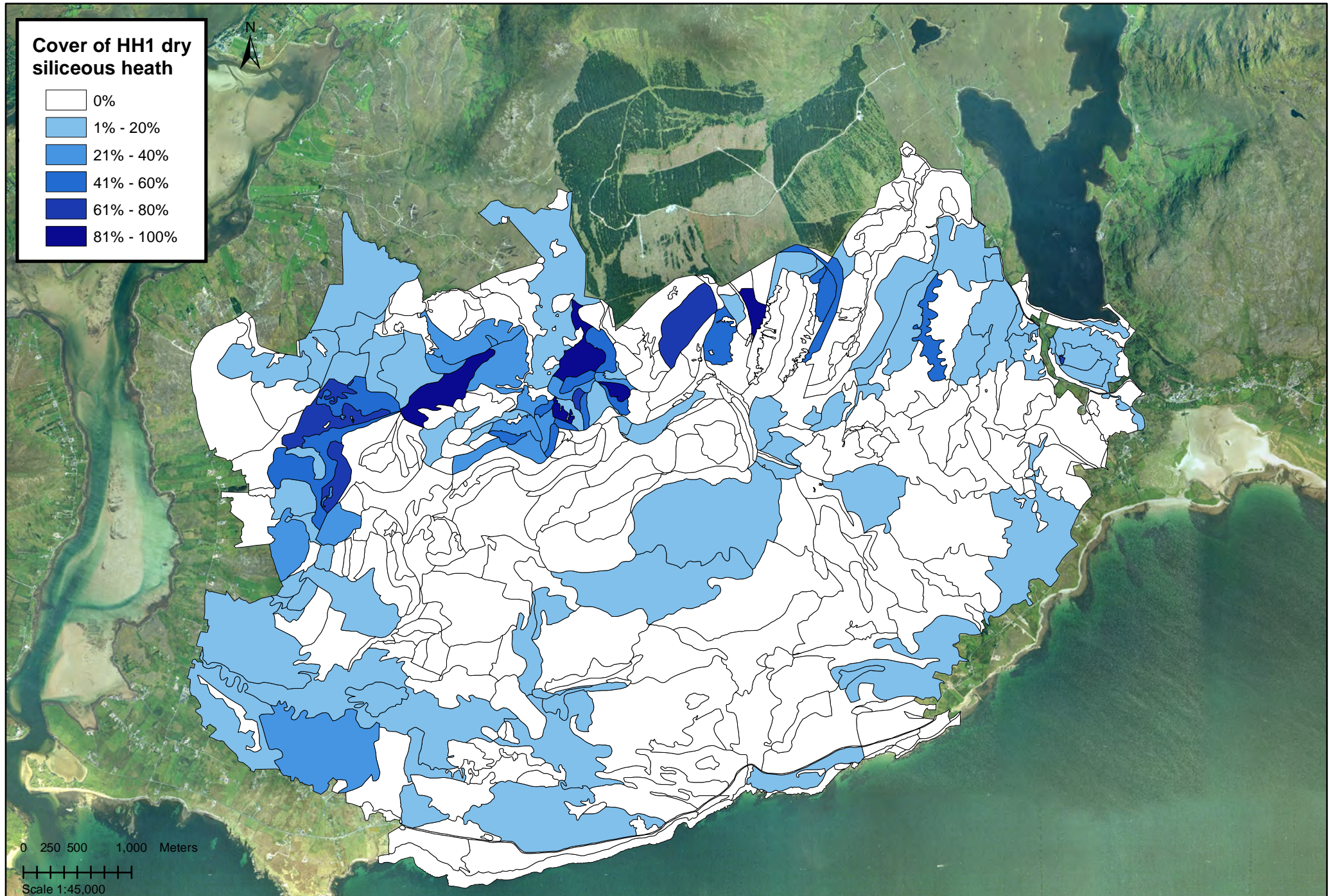


Figure 4c Extent of HH3 wet heath within Corraun Plateau cSAC (000485) survey area

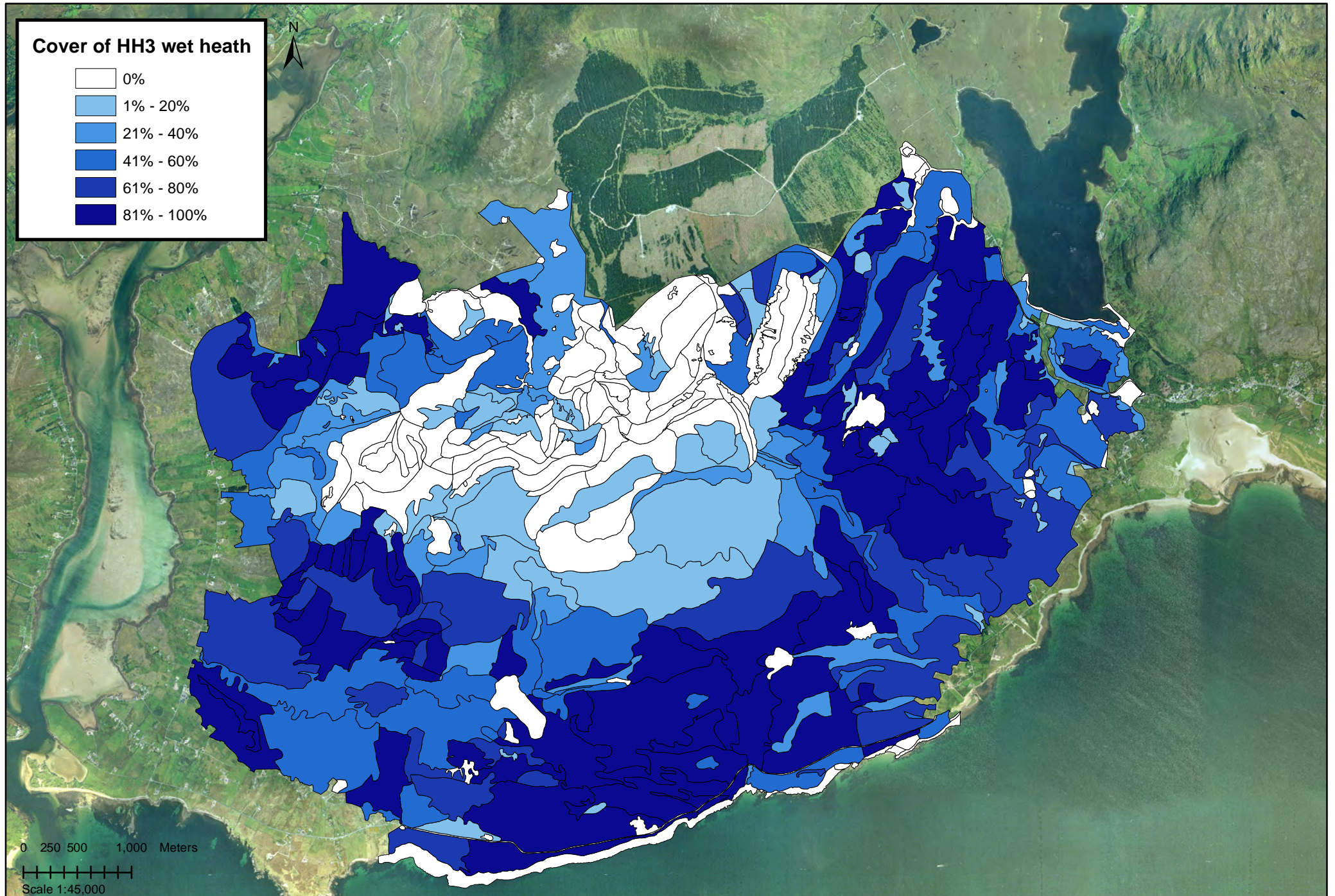


Figure 4d Extent of HH4 montane heath within Corraun Plateau cSAC (000485) survey area

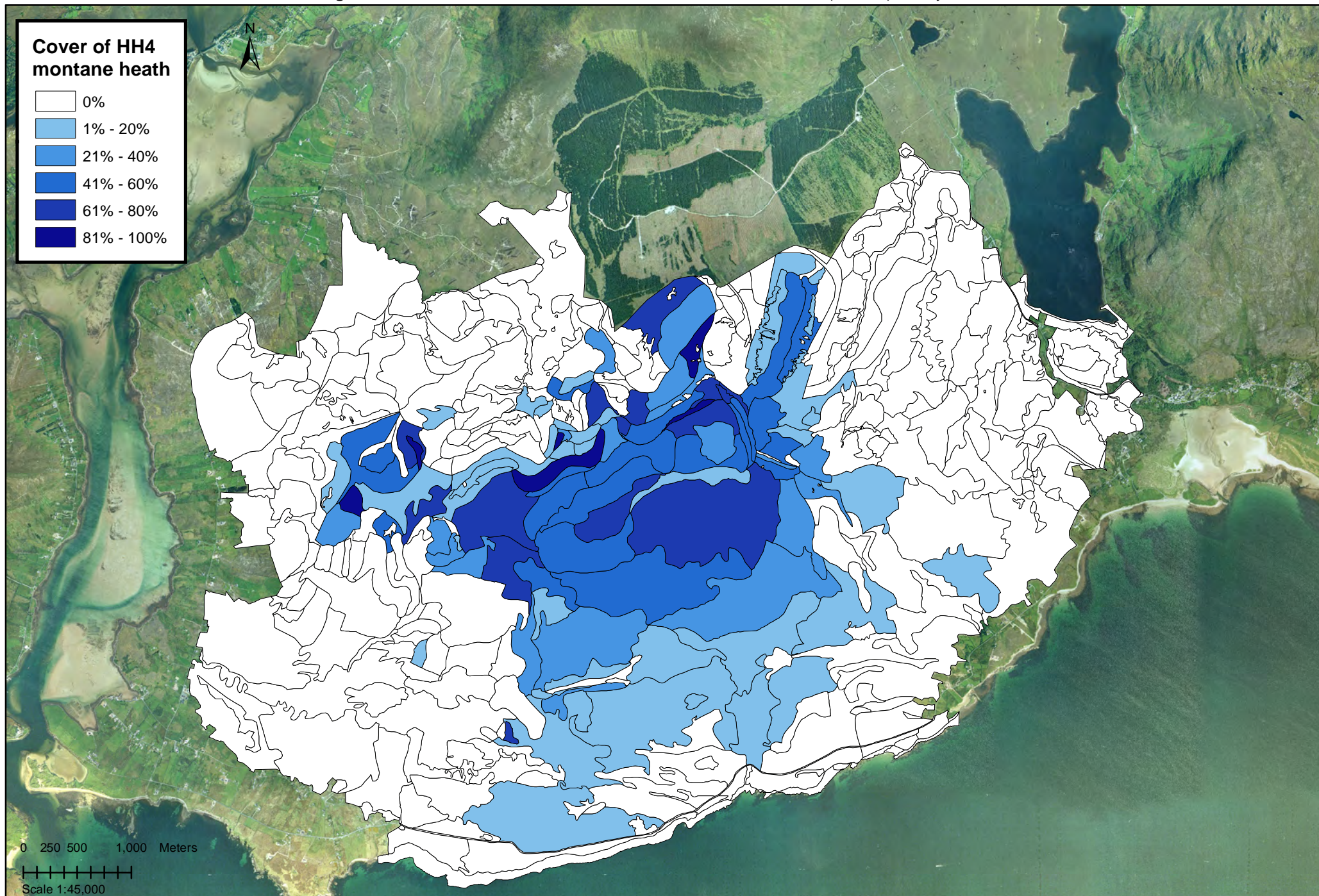


Figure 4e Extent of PB2 upland blanket bog within Corraun Plateau cSAC (000485) survey area

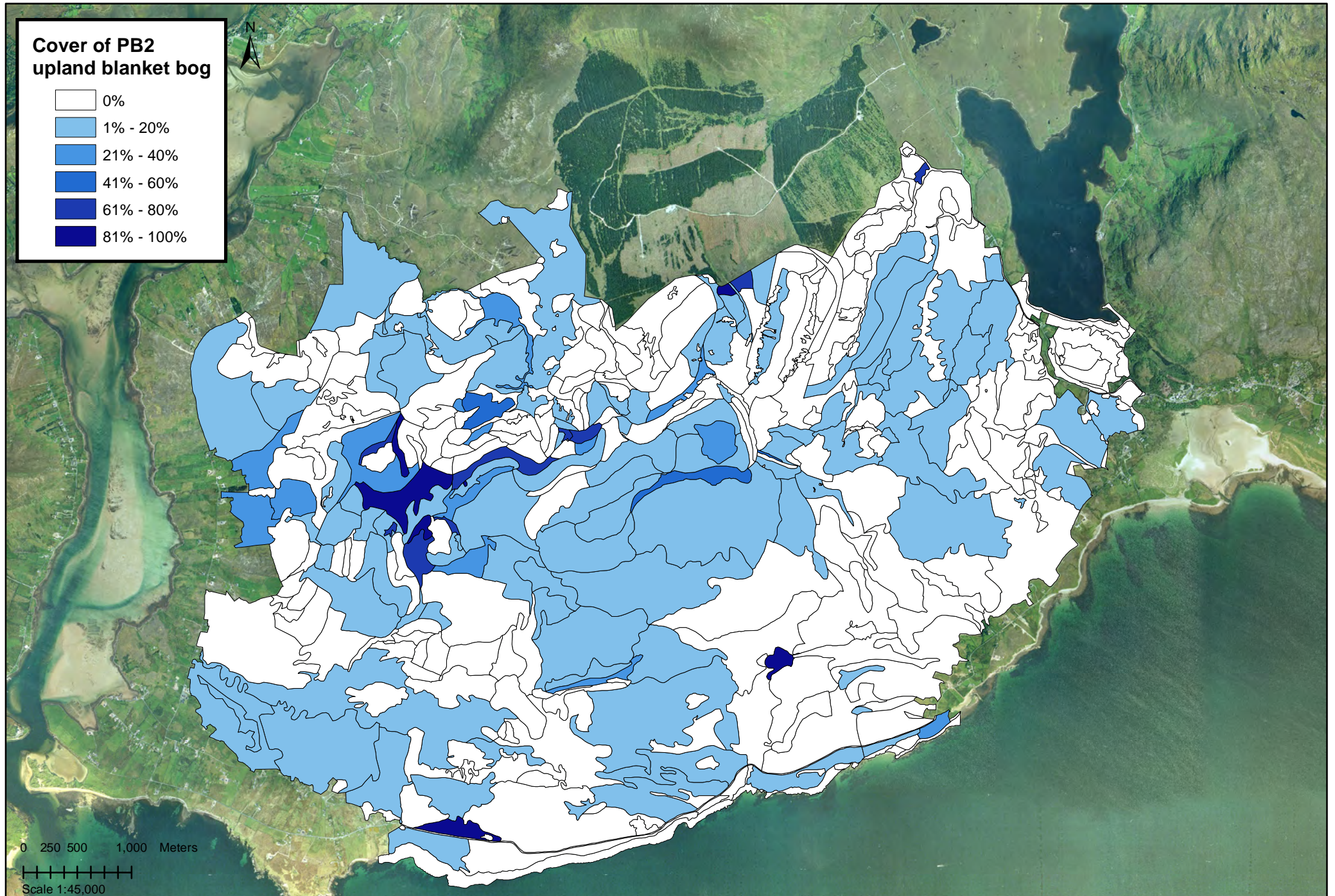


Figure 4f Extent of PB3 lowland blanket bog within Corraun Plateau cSAC (000485) survey area

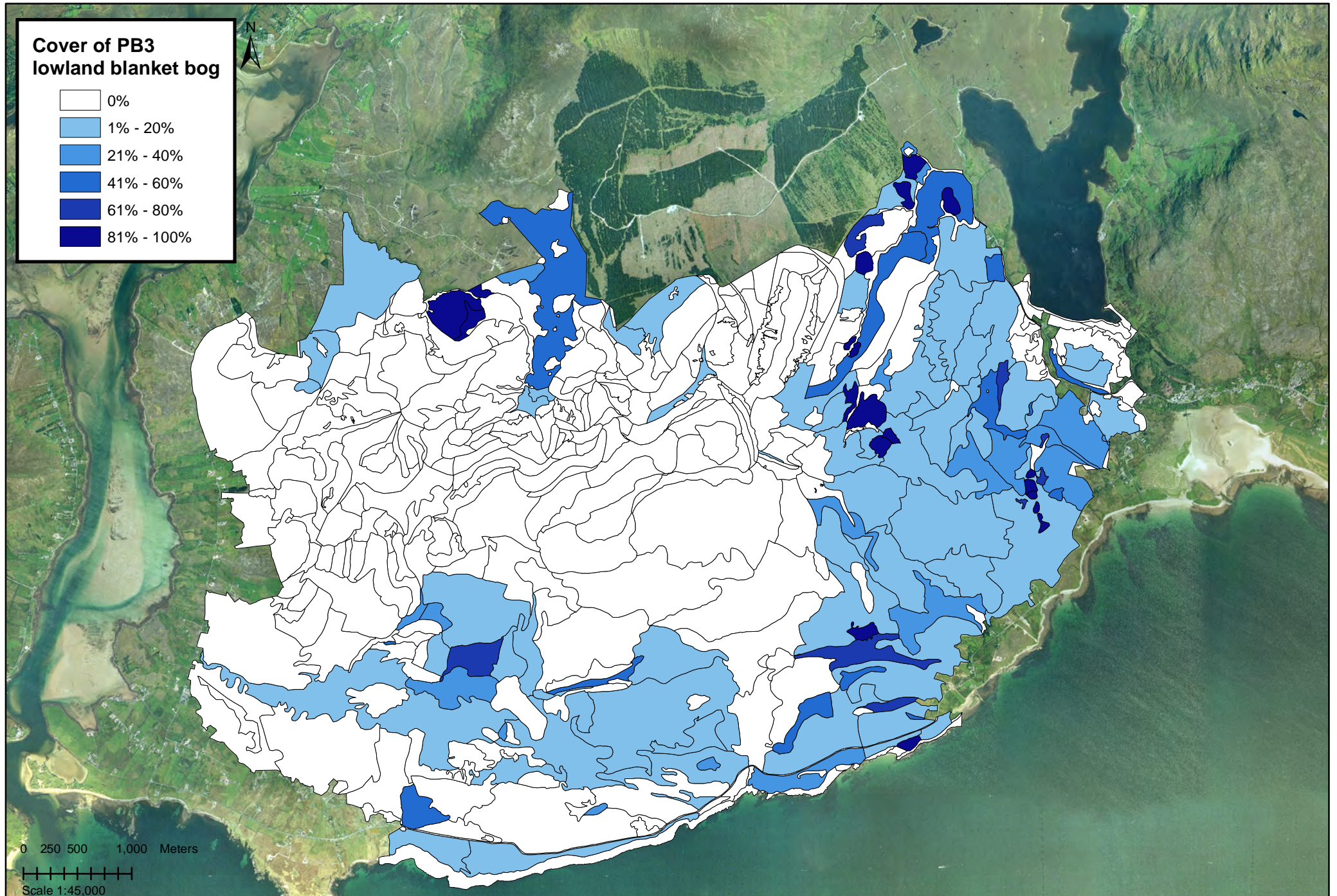


Figure 5a Survey polygons within Corraun Plateau cSAC (000485) survey area

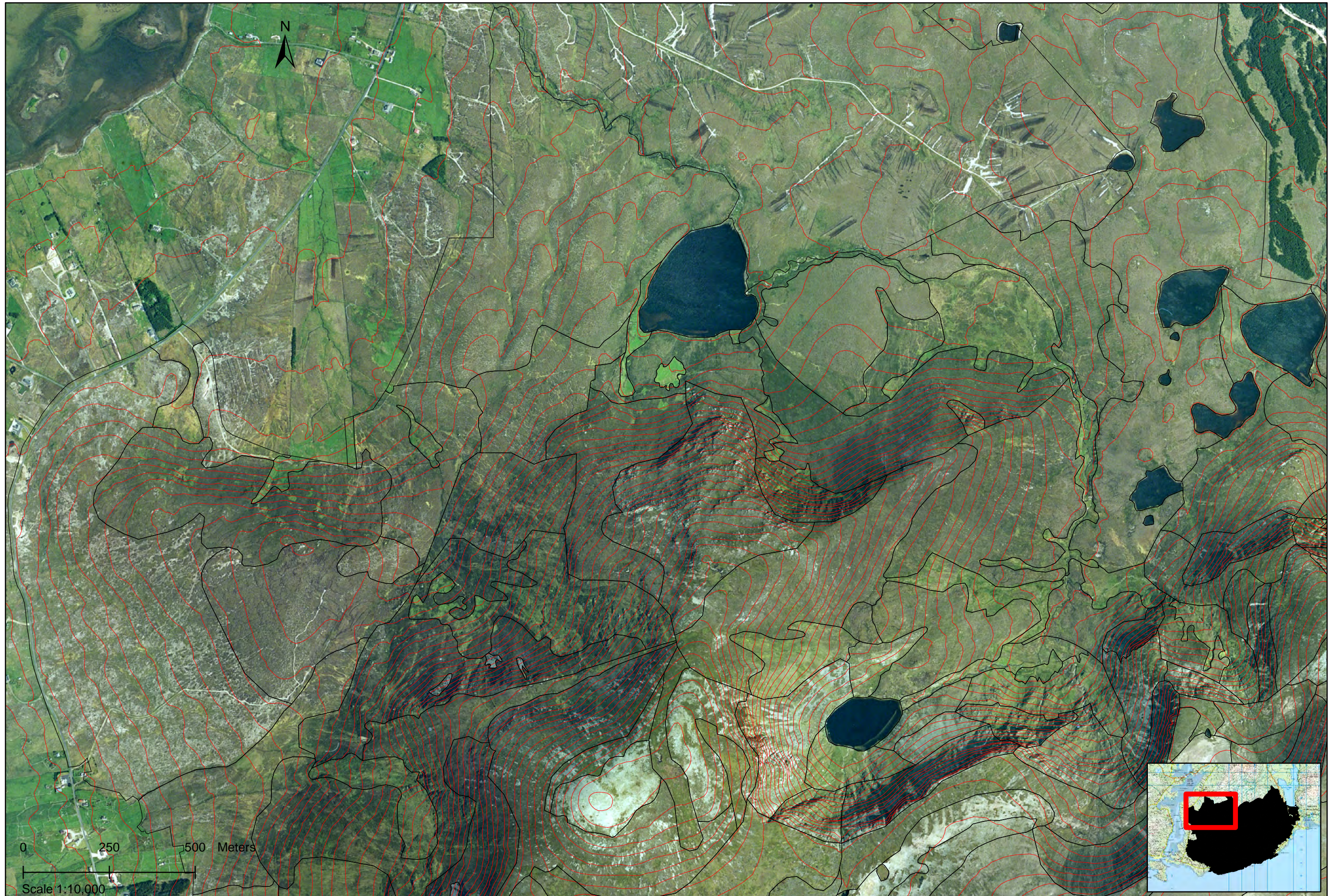


Figure 5b Survey polygons within Corraun Plateau cSAC (000485) survey area



Figure 5c Survey polygons within Corraun Plateau cSAC (000485) survey area



Figure 5d Survey polygons within Corraun Plateau cSAC (000485) survey area



Figure 5e Survey polygons within Corraun Plateau cSAC (000485) survey area



Figure 5f Survey polygons within Corraun Plateau cSAC (000485) survey area



Figure 5g Survey polygons within Corraun Plateau cSAC (000485) survey area



Figure 5h Survey polygons within Corraun Plateau cSAC (000485) survey area



Figure 5i Survey polygons within Corraun Plateau cSAC (000485) survey area

