

Goongerah Environment Centre 4/11/2018

Survey of Yellow-bellied Gliders and Sooty Owls within coupes 891-507-0006, 891-507-0005 and adjacent areas

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Summary

This report describes a yellow-bellied glider (YBG) listening survey which was undertaken across a distance of approximately 1.3 km in the Goongerah Forest off Aberdeen Road (see appendix 2). YBG listening results show healthy densities of YBG within two logging coupes (891-507-0005 and 891-507-0006, one which is actively being logged (891-507-0006) and was also found to contain a Sooty Owl pair.

We request a halt to current logging operations in this area, as we believe our records demonstrate the need for further surveys and the development of adequate protection measures for these species in this area.

Methods

On the 4th of November 2018, Goongerah Environment Centre volunteers undertook a listening survey targeting YBG. 12 people, in three groups conducted the survey, (all names can be provided if needed but 3 team leaders; Rena Gaborov (eastern side), Owen Hanson (western side) and David Caldwell (middle group).

A transect area with 4 gully systems was chosen that spanned across approximately 1.3 km (see appendix 2.). Three sub groups with four listening positions in each were positioned across the area. Distances between each sub-group were calculated using the ruler tool in google maps which showed between the eastern group and the middle group it was approximately 1km, between the middle group and the western group it was approximately 700m and between the eastern and the western it was around 1.3k. All surveyors were competent in reading a compass and in recognising the call of the YBG.

At 20:00, when all people were in the 12 positions, listening commenced. To stimulate YBGs to call, from 20:15 through to 20:40 a series of owl calls and the YBG call were projected from a megaphone from one of the surveyors in the most easterly group (person 1A). At 20:50 to 21:25 owl calls were played by the westerly group. This was followed by a 15-25minute listening period. All calls of YBG or threatened owls heard by surveyors were recorded with the time, bearing and the approximate distance to the call.

YBGs were considered to be unique individuals if more than one called at the same time or the bearing and/or distance was considerably different over a short length of time (1-5 minutes). Estimating distance was considered the most subjective measure and therefore was only used to compare records from the same person.

Considering the variabilities that occur with so many surveyors this report will not attempt to give a definitive number of individual YBGs detected.

These methods are not conventional but were chosen because it was considered that it may be easier to detect individuals more accurately from one position, as YBG are known to move quickly and when surveyors move through bushland spotlighting, they tend to be slow and loud and therefore it can be difficult to decipher YBG individuals.

Results

Table 1 and 2 show the results. Estimates of the minimum number of gliders from the eastern group ranged between 3-4, middle group 2-3 and western group 2, giving a conservative estimate of 7 individuals across the survey area. It is likely the timing of calls reflects the time of the owl playback. the middle group and the western group could not hear the first owl play backs and the eastern group could not hear the western groups play back this is reflected in the results. Although it is highly unlikely because of the distance, there is a remote possibility the YBGs moved from the eastern gully to the middle gully.

Three Sooty Owl detections were also recorded however, it is quite possible they represent 2 individuals due to the time of the recordings. Two individuals were observed flying and conversing by all surveyors in the western group, which is in the area currently being logged (coupe 891-507-0006). Image one (below) shows one of the Sooty Owl pair seen by the western group. A recording of the Sooty Owl conversation can also be supplied if needed.

YBG feed trees were observed in three of the positions where people were located; 'person 4a', 'person 1b' and 'person 2b'. See image 1 in appendix and coordinates in the results table 1.



Image 1 one of the Sooty Owls calling in coupe 891-507-0006 (western group)

Densities in relation to the Planning Standards

Planning standards state more than 5 YBG per/km constitutes a high density. Although our survey method is unconventional and the number of individuals not precise, the survey does reveal the area surveyed as favourable YBG habitat. Suggesting adequate surveying of more than one sub-catchment is likely to reveal a density greater than 5/km and require protection. For this reason, the

Goongerah Environment Centre believes the government should conduct more surveys for YBG before commencing further logging, including in the unlogged forest of coupe 891-507-0006.

It is also of note on the night of the 3rd November 3 YBG were heard from within the active coupe 891-507-0006 (see appendix 1), further highlighting the presence of YBG in this area. Sooty Owl pairs are rare in current records, with existing Sooty Owl Special Protection Zones having largely been formed from records of single individuals. We believe the forest in this surveyed area, including the unlogged forest of the active coupe, appears of high importance for Sooty Owls and should be considered for a Sooty Owl Special Protection Zone.

Table 1 YBG Results (GPS GDA 94 UTM)

Group	Area on transect	sub group	easting	north	Time	Degrees	Distance	YBG possible unique individuals	comments
Group A	Eastern group	person 1 (owl playback)	648414	5871524	No records	No records	No records	No records	play back 20:15-20:40
Group A	Eastern group	person 2	648494	5871479	No records	No records	No records	No records	
Group A	Eastern group	person 3	648549	5871458	20:45	160	20	A	A and B calls were heard at same time
Group A	Eastern group	person 3	648549	5871458	20:46	140	30	B	
Group A	Eastern group	person 3	648549	5871458	20:46	120	moving	B	moving away
Group A	Eastern group	person 3	648549	5871458	20:49	90	40	?	possibly B
Group A	Eastern group	person 3	648549	5871458	20:54	100	50	?	possibly B
Group A	Eastern group	person 4	648626	5871355	19:46	20	30	?	possibly B, pre survey commencement
Group A	Eastern group	person 4	648626	5871355	20:22	5	50	?	possibly B
Group A	Eastern group	person 4	648626	5871355	20:45	40	10	A	Surveyor claimed this was definitely not B or C
Group A	Eastern group	person 4	648626	5871355	20:46	40	30	B	B calls are within seconds of A
Group A	Eastern group	person 4	648626	5871355	20:46	300	60	C	
Group A	Eastern group	person 4	648626	5871355	20:48	40	20	B	probably B
Group A	Eastern group	person 4	648626	5871355	20:49	260	40	D	Surveyors thought 4 th animal but uncertainty
Group B	middle group	person 1	647770	5871709	No records	No records	No records	No records	No records
Group B	middle group	person 2	647718	5871671	20:50	160	100	F	
Group B	middle group	person 3	647801	5871535	21:15	135	>150	E	

Group B	middle group	person 3	647801	5871535	21:19	115	50	G	Surveyor believed G and F were different individuals
Group B	middle group	person 3	647801	5871535	21:21	40	50	F	
Group B	middle group	person 4	647842	5871560	21:10	120	>50	G	The next 3 look to be the same glider
Group B	middle group	person 4	647842	5871560	21:20	170	<50	G	
Group B	middle group	person 4	647842	5871560	21:21	170	<50	G	
Group C	western group	person 1	647414	5871097	20:28	280	100	H	play back 20:50-20:25
Group C	western group	person 1	647414	5871097	20:34	300	200	I	
Group C	western group	person 1	647414	5871097	20:51	260	100	H	
Group C	western group	person 1	647414	5871097	20:58	280	200	I	
Group C	western group	person 1	647414	5871097	21:05	260	100	H	
Group C	western group	person 1	647414	5871097	21:05	260	80	H	
Group C	western group	person 1	647414	5871097	21:07	280	200	I	
Group C	western group	person 1	647414	5871097	21:08	260	80	H	
Group C	western group	person 1	647414	5871097	21:09	280	150	I	
Group C	western group	person 1	647414	5871097	21:19	300	100	H	probable already counted
Group C	western group	person 1	647414	5871097	21:22	230	100	H	unknown if already counted
Group C	western group	person 1	647414	5871097	21:24	260	100	H	
Group C	western group	person 1	647414	5871097	21:25	270	200	I	unknown if already counted
Group C	western group	person 1	647414	5871097	21:29	270	80	H	
Group C	western group	person 1	647414	5871097	21:36	250	100	H	probable already counted
Group C	western group	person 1	647414	5871097	21:46	280	150	I	unknown if already counted
Group C	western group	person 2	647474	5871208	20:32	280	200	H	
Group C	western group	person 3	647384	5871177	20:22	290	120	I	
Group C	western group	person 3	647384	5871177	20:36	270	150	H	
Group C	western group	person 3	647384	5871177	20:53	290	200	H	
Group C	western group	person 3	647384	5871177	20:54	290	200	H	
Group C	western group	person 3	647384	5871177	20:59	290	200	H	

Group C	western group	person 3	647384	5871177	20:59	240	200	I	
Group C	western group	person 3	647384	5871177	21:01	290	200	H	
Group C	western group	person 3	647384	5871177	21:07	240	200	I	
Group C	western group	person 3	647384	5871177	21:17	240	200	I	
Group C	western group	person 3	647384	5871177	21:22	240	200	I	
Group C	western group	person 3	647384	5871177	21:26	240	200	I	
Group C	western group	person 3	647384	5871177	21:30	240	200	I	
Group C	western group	person 3	647384	5871177	21:33	290	200	H	
Group C	western group	person 3	647384	5871177	21:38	290	200	H	
Group C	western group	person 3	647384	5871177	21:39	290	200	H	
Group 3	western group	person 4	647490	5871104	No records	No records	No records	No records	

Table 2 Sooty Owl Results

group	area on transect	sub group position	easting	north	time	bearing	distance	Sooty Owl unique individual	comments
2	middle	person 2	647718	5871671	21:00	65	100	?	probably the same as western groups
2	middle	person 4	647842	5871560	21:16	160	>100	?	
3	western	Person 1	647412	5871097	21:18	180	100	A	Pair still conversing at end of survey
3	western	Person 1	647412	5871097	21:38	220	150	B	

Appendix

Appendix 1.YBG locations from the night of the 3rd November 2018 in coupe 891-507-0006 (the night before the survey)

Date	Time	Site	#	Species	Type	Bearing	Distance	GDA94/UTM
4-Nov-18	1:21	Jungle Creek	1	YBG	Aural	270	100	55H 0647879 5871021
4-Nov-18	1:21	Jungle Creek	2	YBG	Aural	25	50	55H 0647880 5871022
4-Nov-18	2:54	Jungle Creek	3	YBG	Aural	310	150	55H 0647444 5871180

Appendix 2

Green icons show the static positions of the surveyors; Red letters represent possible unique individuals of YBG.

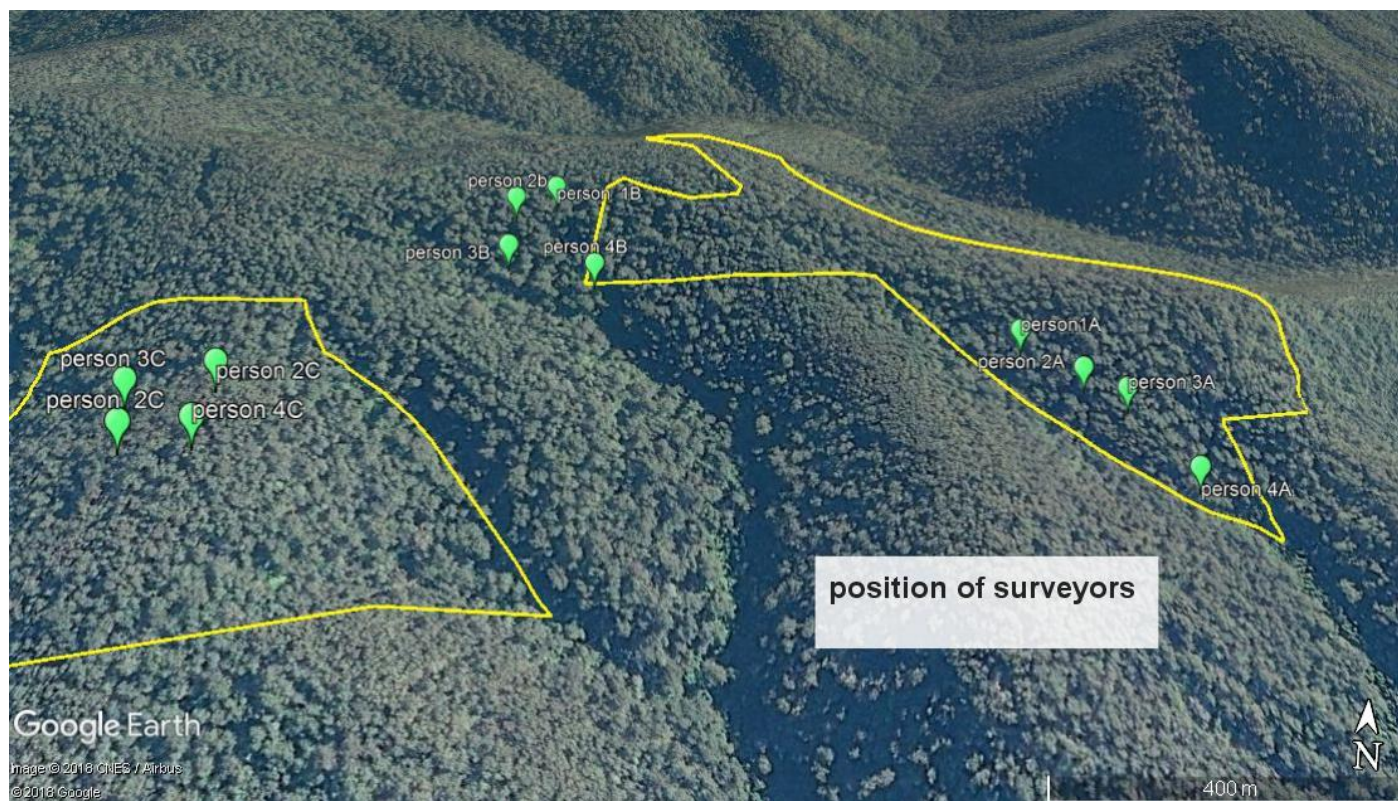
These estimates were gathered from talking to the surveyors as well as direct data interpretation.

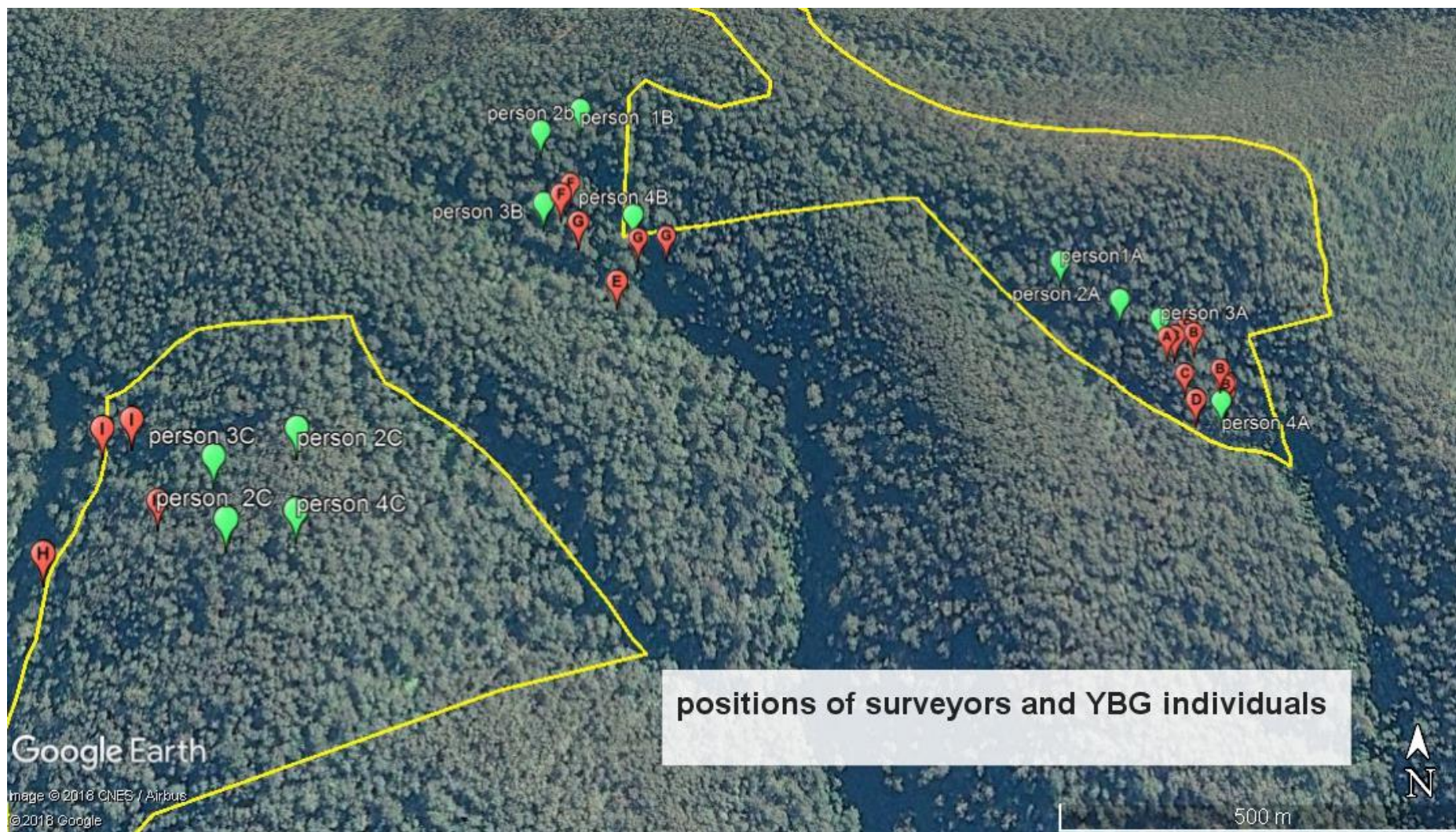
YBG positions are taken from the table with all individuals represented on the map but not all the possible individual locations/positions.

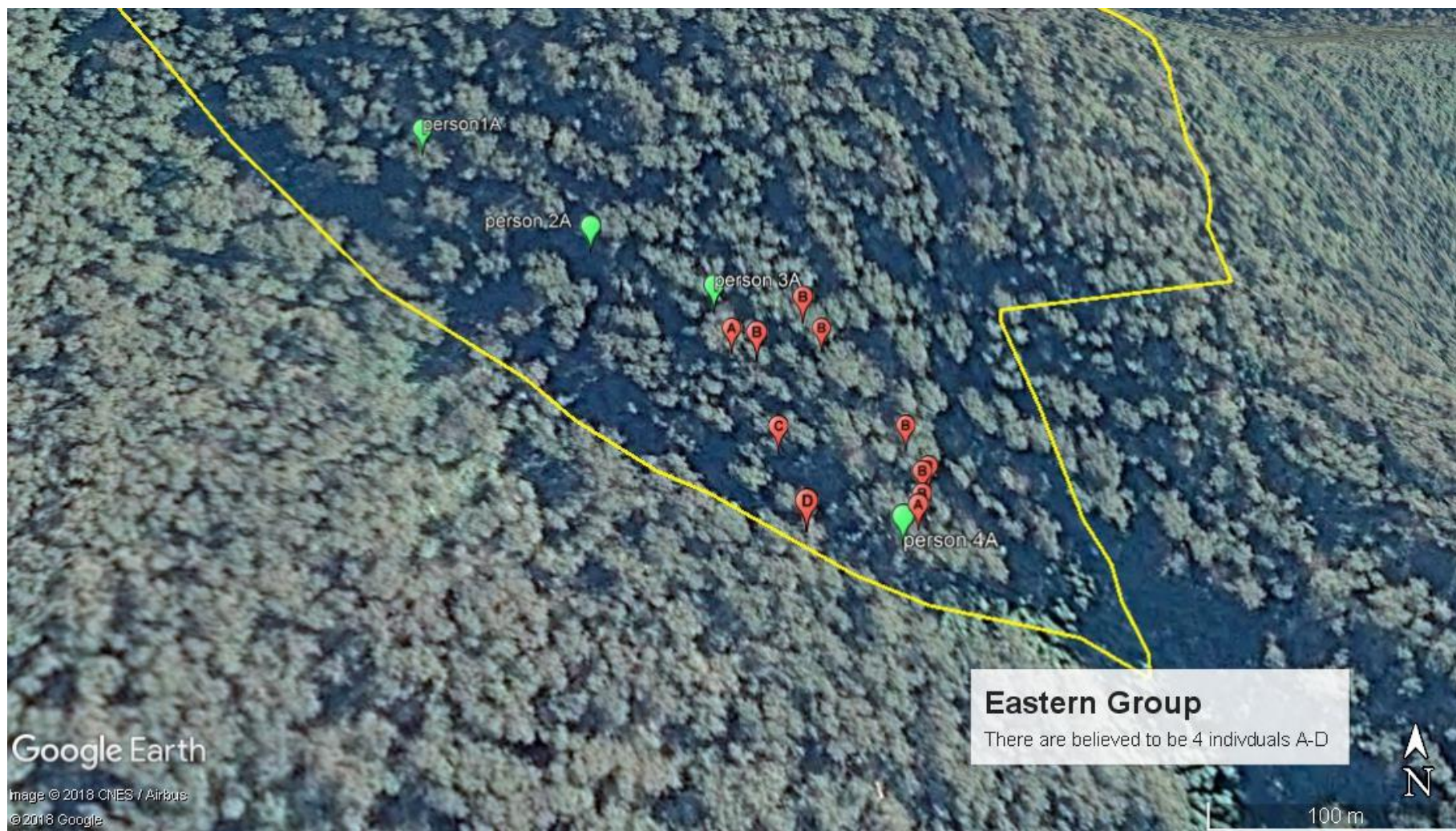
The subjectivity in distance estimates of individual YBG create a number of positions within an area.

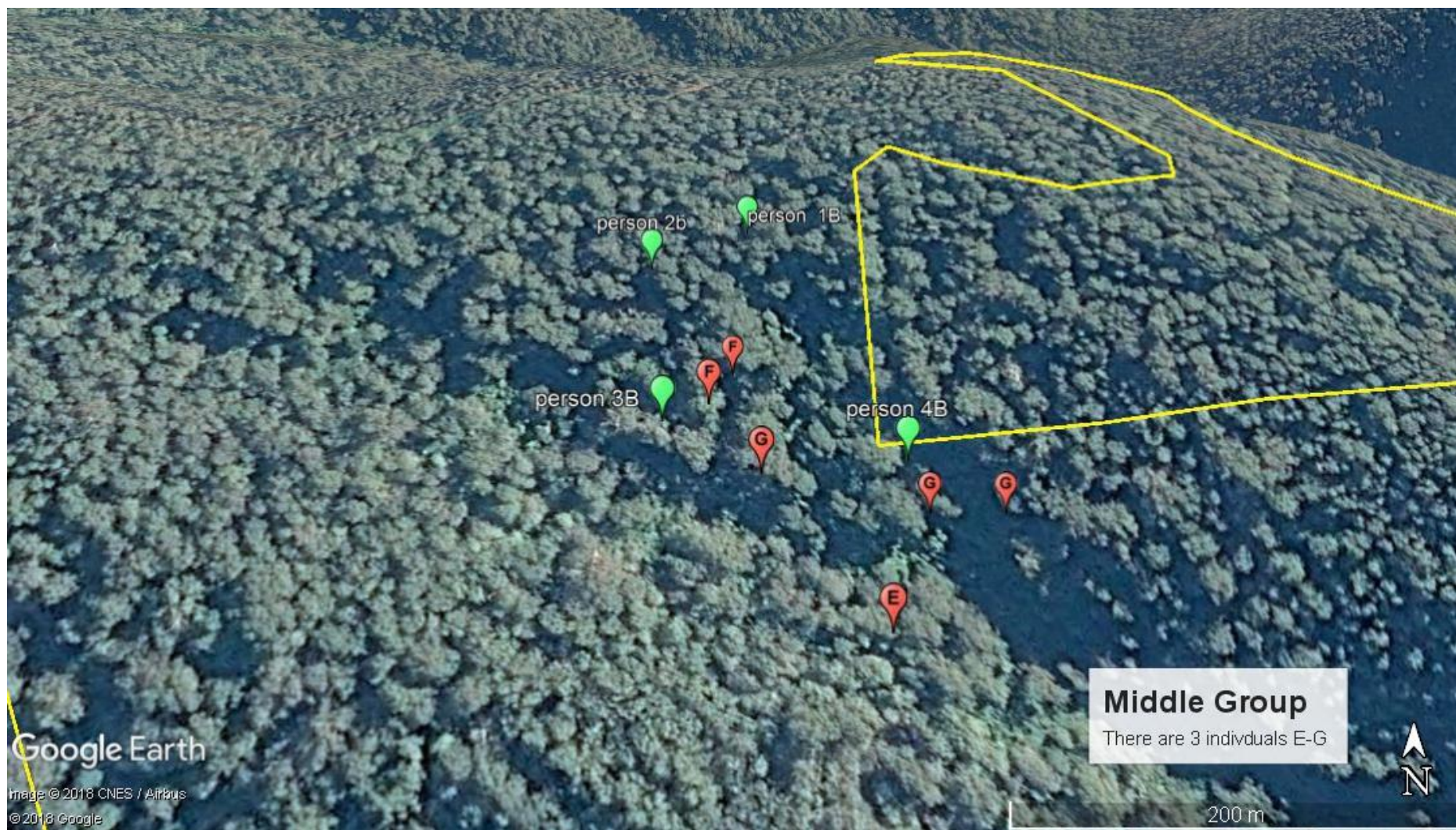
Many positions are just probable unique individuals.

9 possible individuals have been represented but 7 would be a more conservative estimate amalgamating individual's 'G' and 'D' with others.









Google Earth

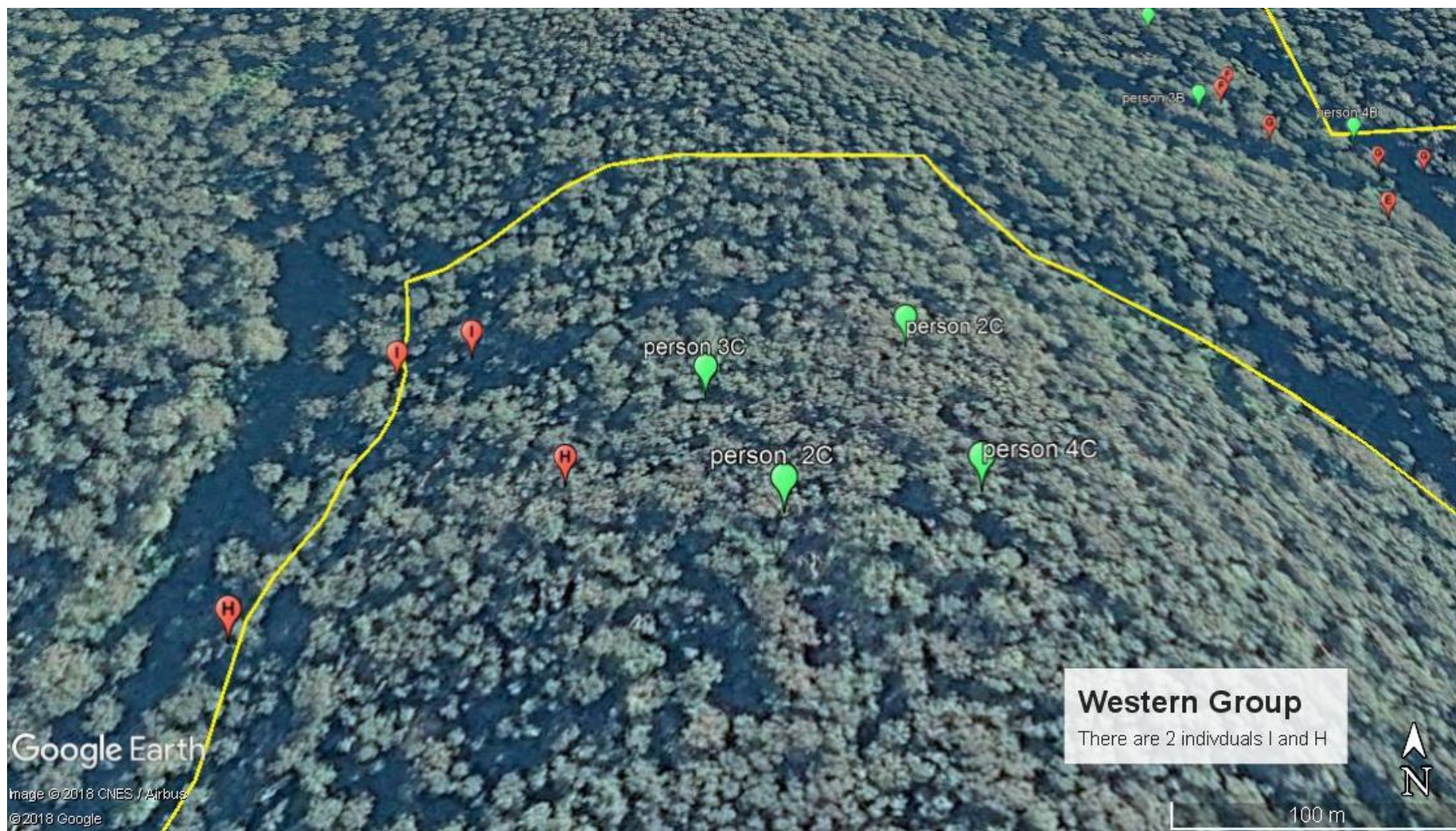
Image © 2018 CNES / Airbus
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Middle Group

There are 3 individuals E-G



200 m



Appendix 3 Image of YBG feed tree from 'person 4a' (GPS) 55 H 648626 5871355

