POSTMASBURG SOLAR PV ENERGY FACILITY 2:

FAUNA AND FLORA PRECONSTRUCTION WALK-THROUGH REPORT

PRODUCED FOR ATLANTIC ENERGY PARTNERS

3Foxes Biodiversity Solutions

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JANUARY 2022

DECLARATION OF CONSULTANTS' INDEPENDENCE

- I Simon Todd, as the appointed independent specialist hereby declare that I:
- act/ed as the independent specialist in this application;
- regard the information contained in this report as it relates to my specialist input/study to be true and correct, and
- do not have and will not have any financial interest in the undertaking of the activity, other than remuneration for work performed in terms of the NEMA, the Environmental Impact Assessment Regulations, 2010 and any specific environmental management Act;
- have and will not have no vested interest in the proposed activity proceeding;
- have disclosed, to the applicant, EAP and competent authority, any material information that have or may have the potential to influence the decision of the competent authority or the objectivity of any report, plan or document required in terms of the NEMA, the Environmental Impact Assessment Regulations, 2010 and any specific environmental management Act;
- am fully aware of and meet the responsibilities in terms of NEMA, the Environmental Impact Assessment Regulations, 2010 (specifically in terms of regulation 17 of GN No. R. 543) and any specific environmental management Act, and that failure to comply with these requirements may constitute and result in disqualification;
- have provided the competent authority with access to all information at my disposal regarding the application, whether such information is favourable to the applicant or not; and
- am aware that a false declaration is an offence in terms of regulation 71 of GN No. R. 543.

Simon Todd Pr.Sci.Nat 400425/11.

January 2022

Introduction & Background

Atlantic Energy Partners (AEP) has appointed 3Foxes Biodiversity Solutions to provide a walk-through of the approved Postmasburg Solar PV Energy Facility 2 located near Postmasburg in the Northern Cape. As part of authorization and permitting conditions for the development, a preconstruction walk-through of the facility is required before construction can commence.

The purpose of the walk-through is to locate and identify any protected or threatened plant species or fauna of conservation concern within the development footprint and which may be impacted by the development. This report details the findings of the walk-through study that was conducted for the development footprint of the PV facility and grid connection. The identity and location of all listed and protected species is provided, which can be used as input for the vegetation clearing permit application that is required from the provincial authority before construction can commence. Recommendations for avoidance or search and rescue are provided as appropriate.

Relevant Aspects of the Development

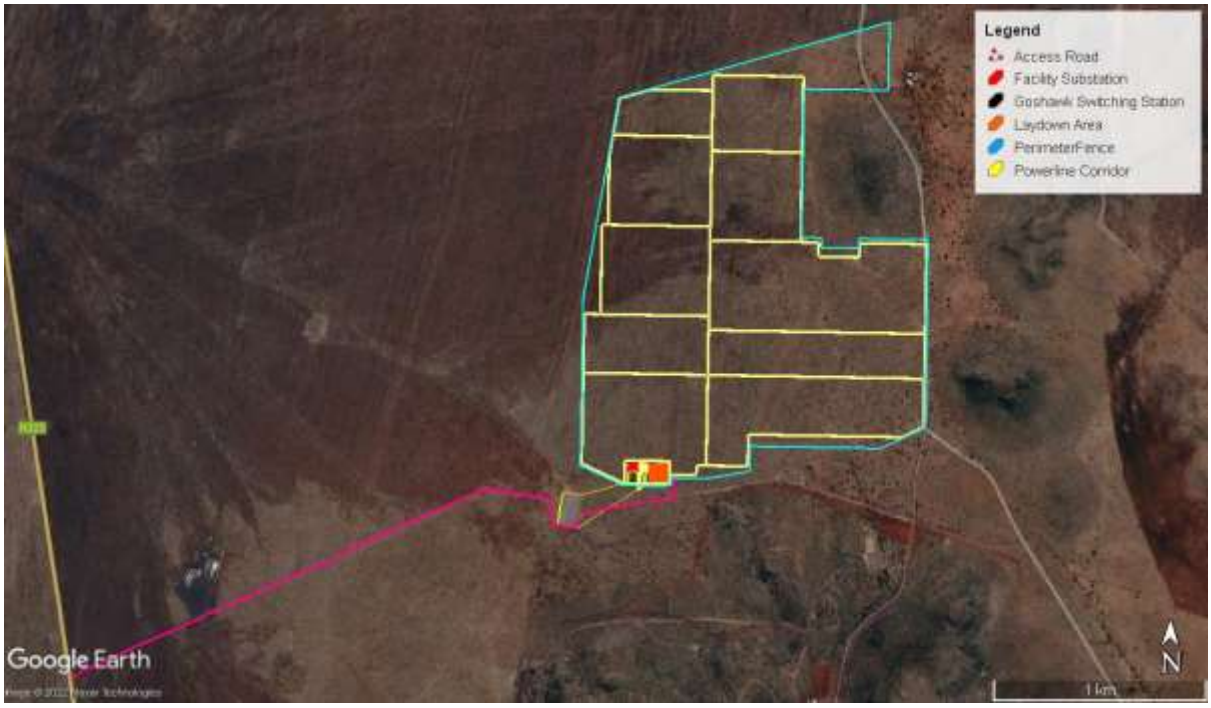

Figure 1. Satellite image illustrating the layout of the Postmasburg Solar PV Energy Facility 2 in blue, with the access road to the site in purple and the facility service roads in yellow.

The layout of the facility is illustrated above in Figure 1 and consists of a 248ha PV area, a substation in the south and a very short grid connection to the adjacent Eskom Manganore Substation. It is assumed that the whole footprint would be cleared and that all protected species present would be lost from the development area. In practice, it is likely that many of the geophytes will be able to persist and will be able to grow beneath the panels. The trees will however need to be cleared and are not compatible with the operation of the facility.

Walk-Through

The walk-through was conducted over 2 days on the 14th and 15th of January 2022. During the walk-through, the project footprint area was walked and all listed and protected species observed were recorded. Parallel transects approximately 100 m apart were walked across the footprint area, resulting in a walked track of approximately 27km of walked transects. This was deemed sufficient to provide an accurate estimate of the number of woody trees present at the site and represents more than 10% of the total area. For smaller species, the distance between the transects suggests that it is possible that some less-conspicuous species would be missed. However, the evidence from the site suggests that the density of such species is very low and if any such species are present, they would be represented by a low number of individuals. This is a feature of all walk-through studies and is an inherent limitation associated with searching such a large area. The total distance covered and the comprehensive coverage of the site indicates that the site was well-covered and any concentrations of species of concern or other features are likely to have been observed. As such, there are few limitations with regards to the walk-through and the estimates of the number of individuals of species of concern affected by the development. Apart from the footprint of the facility, the access road to the facility was also checked while in the field. The existing access road to the site is sufficiently wide that it will not need to be expanded up until the point where it reaches the Eskom Substation. From there it will deviate south and around the SS towards the site and in this section, the road will need to be upgraded. The length of the road to be upgraded is approximately 750m long and 6m wide.

Identification of Listed and Protected Species

Plant species of conservation concern which may occur in the area were identified a priori as far as possible, based on a species list for the broad area extracted from the SANBI POSA database. The area used was significantly larger than the study area, but a larger area was used to ensure an inclusive species list and because the area has not been very well sampled historically. Species of conservation concern were extracted from the list based on their status according to Red List of South African plants version 2022 (http://redlist.sanbi.org/) as well as species listed as endangered or protected under the Northern Cape Nature Conservation Act (No. 9 of 2009). In some cases, species are listed under both, but in general the provincial legislation is more inclusive and attempts to provide some protection for species, genera and families likely to vulnerable to illegal plant collection and other similar threats. Of particular relevance to the current study are the following, which are extracted from the legislation and are not intended to provide a comprehensive list of all protected species, only those which are likely to be encountered in the area. The reader is referred to the schedules of the Act for a full list of species listed under the act.

Schedule 1: Specially Protected Flora

- Family GERANIACEAE - Pelargonium spp. all species

Schedule 2 Protected Flora

- *Amaryllidaceae* – All species
- *Apiaceae* – All Species
- *Apocynaceae* – All Species
- *Asphodelaceae* – All species except *Aloe ferox*

- *Iridaceae* – All species
- *Mesembryanthemaceae* – All species
- *Capparaceae* - Boscia spp. Sheperd's trees, all species
- *Androcymbium* spp. - All species
- *Crassulaceae* - All species except those listed in Schedule 1
- *Euphorbiaceae* - Euphorbia spp. All species
- *Oxalidaceae* - Oxalis spp All species
- *Portulacaceae* - Anacampseros spp. All species

Apart from the above flora, all species of geophytes and large woody species at the site were recorded irrespective of their status. This is to ensure that all species of potential concern are captured as well as to allay the fears of the developer or ECOs which are not always familiar with the vegetation of the area concerned and are not always able to identify species reliably in the field.

In terms of fauna, the following are species which potentially occur at the site and are listed as protected species:

Schedule 1. Specially Protected Fauna

- *Felis nigripes* - Black-footed cat/Miershooptier
- *Felis silvestris* - African wild cat/Afrika wildekat
- *Ictonyx striatus* - Striped polecat/Stinkmuishond
- *Mellivora capensis* - Honey badger/Ratel
- *Otocyon megalotis* - Bat-eared fox/Bakoorvos
- *Proteles cristatus* – Aardwolf/Maanhaarjakkals
- *Vulpes chama* - Cape fox / Silver jackal Silwervos
- *Orycteropus afer* - Aardvark / Ant-bear Erdvark / Aardvark
- Family: *Chamaeleonidae* - Chamaeleons, all species
- Family: *Cordylidae* Girdled lizards, all species
- *Cacosternum capense* Cape Caco / Kaapse blikslanertjie
- *Pyxicephalus adspersus* Giant Bullfrog / Giant Pyxie Brulpadda

Schedule 2. Protected Species

Virtually all indigenous fauna which do not fall under Schedule 1 are classified under Schedule 2, except those species classified as pests. In terms of mammals most rodents, shrews, elephant shrews, bats, hares and rabbits, carnivores such as mongoose, genets, and meerkat, antelope such as klipspringer, steenbok and duiker are included. In terms of other vertebrates, all tortoises, lizards, most harmless snakes and all frogs are listed under Schedule 2. The full list is contained within the Schedule and is not repeated here.

In terms of fauna, the following *inter alia* are protected and may not be hunted, captured or harmed without a permit:

- All tortoises
- All lizards
- All frogs
- Most snakes

- All indigenous antelope
- Aardvark
- Most small carnivores such as Honey Badger, Cape Fox, Bat-eared Fox, Large Grey Mongoose etc.
- Most birds except pest species

Of relevance to the current study would be burrows of any of the above species within the development footprint, specialized habitat home to red-listed fauna, or nesting and roosting sites of birds such as raptors or cranes. All large trees were checked for raptor nests or other large bird species, but no such nests were observed within the study area.

Study Limitations

The walk-through was conducted in January 2022 following good early summer rains, with the result that the vegetation of the site was green and in active growth. Many annuals and geophytes were present and the grass layer was well-developed, suggesting that the vast majority of species of potential concern were growing and could be observed. Part of the site, estimated at approximately 15% of the site had recently burnt and it is likely that this impacted the results of the walk-through to some degree as it is likely that some protected species had burnt and would not have had time to resprout. However, as this was not a large proportion of the site, the impact of this is not considered to be significant. Due to the conditions at the site being generally considered to represent near optimal conditions for the walk-through, there are no significant limitations in this regard for the walk-through. The results obtained are therefore considered reliable and robust. However, as with all walk-through studies, it is possible that a small number of individuals of smaller or inconspicuous species may have been overlooked or were not active at the time of the walk-through.

Figure 2. A proportion of the site has recently burnt and it is possible that this would have impacted the results of the walk-through to some degree. This however represents a relatively small area and it is unlikely that this has had a major impact on the results.

Walk-Through Results

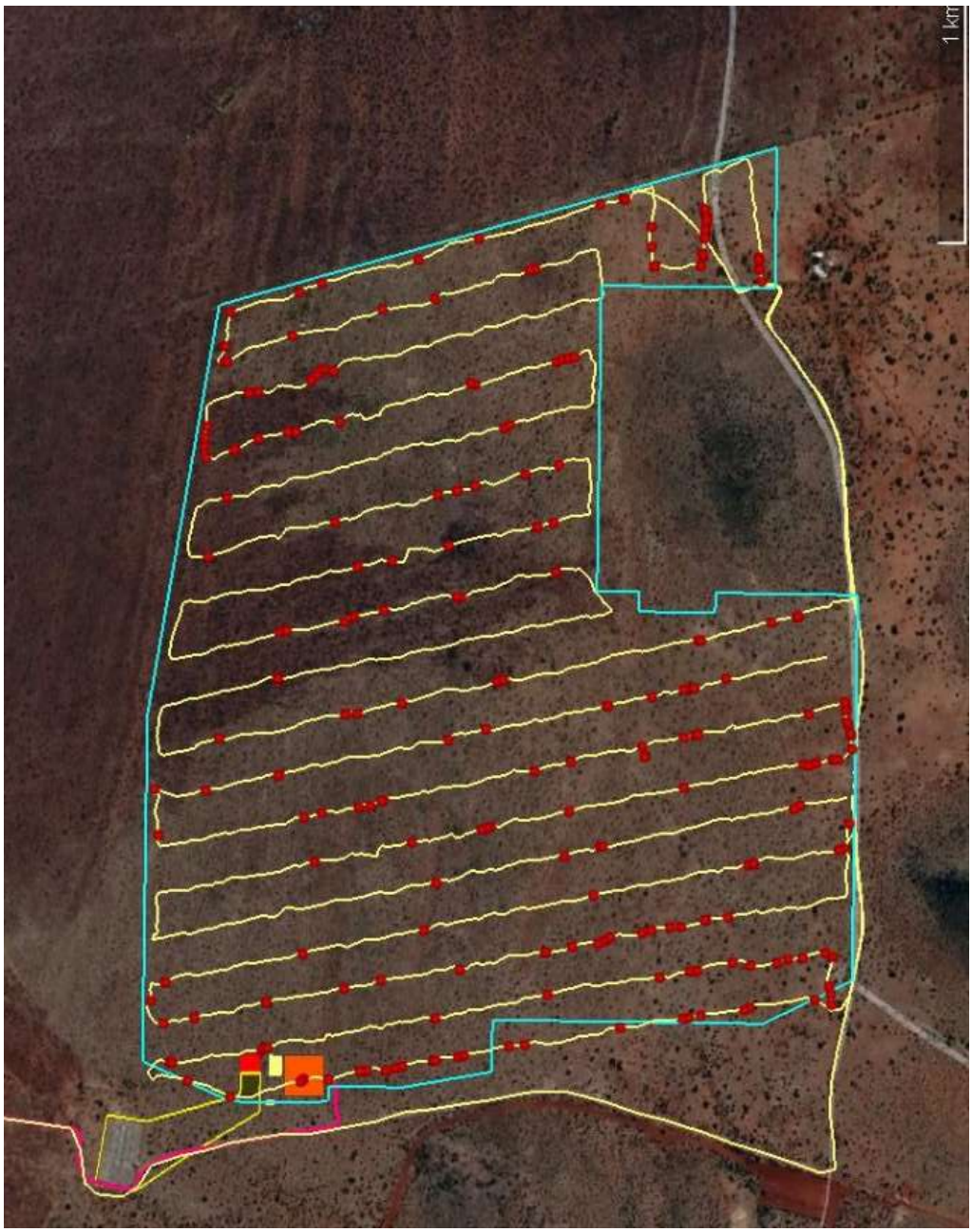

Figure 2. Walk-through track showing the parallel transects that were walked across the site and the location of the observations of species of concern.

The results of the walk-through are summarized below in Table 1. In terms of nationally protected species, it is estimated that the development would impact 938 *Vachelia erioloba* trees, 41 *Vachelia haematoxylon* trees and 57 *Boscia albitrunca*. Provincially protected species observed include the bulb *Nerine laticoma* of which an estimated 160 plants would be impacted and *Olea europea* subsp.

africana of which an estimate 658 would be lost to the development. As the development has two separate authorizations (PV Facility and Grid), the number of each species affected by each component of the development is detailed in Table 1 below. Other species which may be present within the site at low numbers but which were not observed during the walk-through include *Boophone disticha* and *Euphorbia braunsii*. A single dead bulb of *Boophone* was observed during the walk through, while *Euphorbia braunsii* was not observed during the walk-through but a few localized individuals were observed at the site during the original field assessment for the development in 2014. If present, it is estimated that there would be less than 10 individuals of either species present on the site within the affected area.

The abundance of fauna in the study areas was low and although there were some aardvark diggings in the study area, none of these appeared to be occupied by other mammals such as porcupine, bat-eared foxes or similar den-using fauna. As such, no faunal concerns were observed at the site and no action in this regard is recommended at this stage.

Table 1. Summary of the number of listed and protected species which were encountered during the walk-through. The table provides the estimate of the number of individuals of each species affected as well as an estimate of the confidence around that estimate based on the pattern of distribution of each species at the site and the likely sampling error.

Species	Protection Status	PV Facility		Grid/Substation	
		Estimate	Confidence	Estimate	Confidence
Vachelia erioloba	National/DEFF	936	±100	2	±5
Vachelia haematoxylon	National/DEFF	40	±10	1	±2
Nerine laticoma	Provincial	160	±20	0	±0
Ledebouria sp.	Not Protected	1064	±100	5	±10
Olea europea spp. africana	Provincial	656	±70	2	±5
Boscia albitrunca	National	56	±10	1	±1

Figure 1. View over the site, showing the typical vegetation of the site, which is dominated by *Grewia flava, Senegalia mellifera* and *Tarchonanthus camphoratus*, with occasional individuals of *Vachelia erioloba*.

Apart from the estimate of the number of affected protected tree species, the size class distribution of *Vachelia erioloba* was also recorded in the field for all individuals encountered. This was not done for *Vachelia haematoxylon* as this species was not common and all individuals present are of the bushy type and no large tree type individuals greater than 2m tall are present within the affected area. In terms of the *Vachelia erioloba*, these were classified into 5 size classes as follows:

- Very Small - individuals that were less than 2 m tall
- Small – individuals that were less than 4m tall and less than 3m wide
- Medium – individuals that were more than 4m tall and more than 3m wide
- Large – individuals that were more than 4m tall and more than 5m wide
- Very Large – individuals that were more than 6m tall and more than 10m wide.

The results of the size class distribution are illustrated below. The *Vachelia erioloba* population within the affected area is dominated by very small individuals, which reflects recent recruitment and a likely increasing population at the site. About 85% of the individuals present are within the Small and Very Small category and only 5% of the trees present are within what is considered to represent the Large size class. This converts to an estimated total of 50 large *V.erioloba* trees that would be lost to the development. No Very Large individuals were observed within the affected area which can be ascribed to the shallow soils that characterize the site. In terms of Boscia *albitrunca*, most of the individuals present were of the ground-hugging type and less than 0.5m tall. No large individuals were observed present at the site.

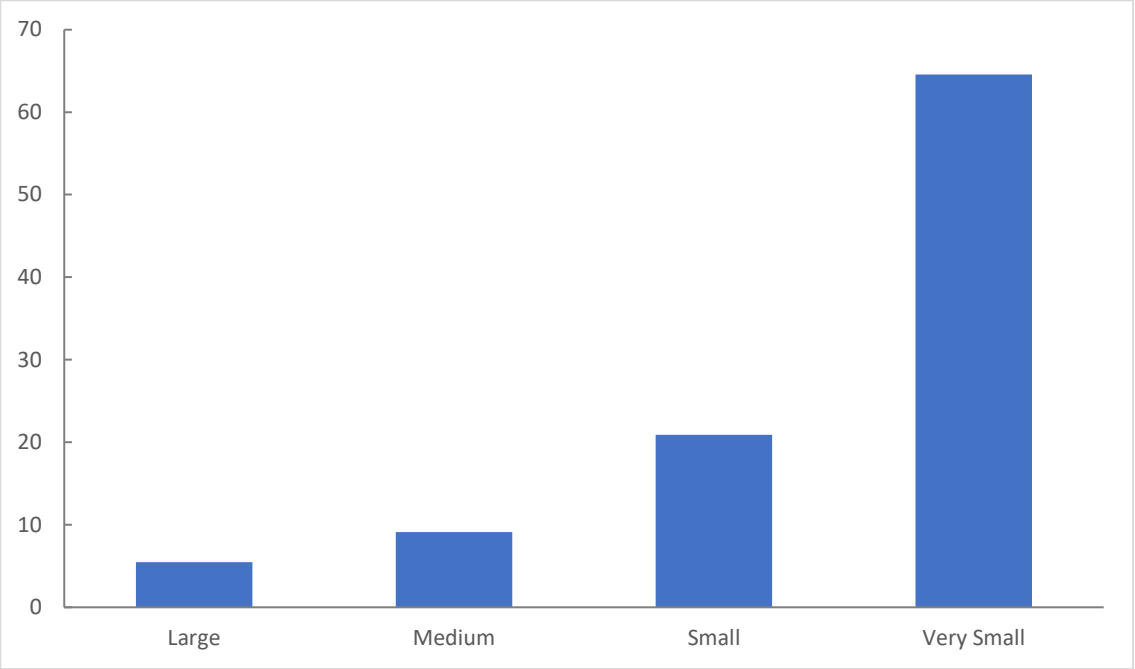

Figure 2. Size class distribution of *Vachelia erioloba* showing the proportion of trees within each size class based on a sample of 110 trees that were sampled during the walk-through.

Conclusions and Recommendations

The development area of the Postmasburg PV facility is located within the Kuruman Thornveld veld type on shallow soils. These soils are generally unfavourable for the development of large trees and the vegetation within the site is dominated by *Grewia flava*, *Senegalia mellifera* and *Tarchnanthus camphoratus*, with a relatively low density of protected tree species. In terms of nationally protected species, *Vachelia erioloba* occurs at an approximate density of 3.5 trees/ha and while almost 1000 individuals would be lost to the development, 85% of these are young and small individuals. There is also a low number of *Vachelia haematoxylon* and *Boscia albitrunca* present, but in both cases, these are small individuals and the loss of these individuals from the site would not have a significant impact on the local population of either species. In terms of provincially protected species, only *Olea europea* subsp. *africana* and *Nerine laticoma* were observed to be present. Approximately 650 Olea trees would be impacted by the development. These are largely small individuals likely resprouters from the regular fires that appear to affect the area. None of the protected tree species can be successfully translocated and all of the tree species would need to be destroyed at site clearing. The only species observed present that is considered suitable for translocation is *Nerine laticoma*, of which a representative sample (at least 20) should be translocated to outside of the development footprint. If any additional such species suitable for translocation are encountered at site clearing or construction, they should be translocated outside of the affected area. It is important to note that a permit is required for translocation of protected species, even within the same site.

In terms of the process going forward from this walk-through, a clearing permit obtainable from DEFF is required for the loss of the nationally protected trees and an additional permit would also be required from DAEARDLR which would cover the provincially protected species such as the *Olea europea subsp. africana* and *Nerine laticoma* but would also need to include the protected tree species

as well as general site clearing. This report, as well as the EA for the applications, landowner permission and the specialist studies from the respective EIA's are required for the permit applications.

Annex 1. List of Coordinates

Coordinates of listed and protected plant species observed during the walk-through.

ID	Species	Height	Width	Count	Latitude	Longitude
1	*Vachelia erioloba*	2	2	1	-28.1127	23.11779
2	*Vachelia erioloba*	0.5	0.5	1	-28.1288	23.10666
3	*Vachelia erioloba*	0.5	0.5	1	-28.1113	23.11461
4	*Vachelia erioloba*	1	0.5	1	-28.1122	23.11128
5	*Vachelia erioloba*	1	0.5	1	-28.1213	23.10677
6	*Vachelia erioloba*	1	1	1	-28.1214	23.11619
7	*Vachelia erioloba*	1	1	1	-28.1246	23.11429
8	*Vachelia erioloba*	1	1	1	-28.1246	23.11996
9	*Vachelia erioloba*	1	1	1	-28.1279	23.10394
10	*Vachelia erioloba*	1	1	1	-28.1282	23.10496
11	*Vachelia erioloba*	1	1	1	-28.1265	23.11442
12	*Vachelia erioloba*	1	1	1	-28.1263	23.11552
13	*Vachelia erioloba*	1	1	1	-28.1261	23.11678
14	*Vachelia erioloba*	1	1	1	-28.126	23.11729
15	*Vachelia erioloba*	1	1	1	-28.1276	23.11971
16	*Vachelia erioloba*	1	1	1	-28.1274	23.11966
17	*Vachelia erioloba*	1	1	1	-28.1271	23.11643
18	*Vachelia erioloba*	1	1	1	-28.1228	23.11966
19	*Vachelia erioloba*	1	1	1	-28.129	23.11109
20	*Vachelia erioloba*	1	1	1	-28.1289	23.11122
21	*Vachelia erioloba*	1	1	1	-28.1281	23.11642
22	*Vachelia erioloba*	1	1	1	-28.1113	23.11466
23	*Vachelia erioloba*	1	1	1	-28.1146	23.11354
24	*Vachelia erioloba*	1	1	1	-28.1204	23.11651
25	*Vachelia erioloba*	1	1	1	-28.1204	23.11657
26	*Vachelia erioloba*	1	1	1	-28.1199	23.11878
27	*Vachelia erioloba*	1	1	1	-28.1198	23.11881
28	*Vachelia erioloba*	1	1	1	-28.1246	23.11436
29	*Vachelia erioloba*	1	1	1	-28.1228	23.1197
30	*Vachelia erioloba*	1	1	1	-28.1225	23.1201
31	*Vachelia erioloba*	1	1	1	-28.1216	23.11992
32	*Vachelia erioloba*	1	1	1	-28.1223	23.11654
33	*Vachelia erioloba*	1	1	1	-28.1226	23.11525
34	*Vachelia erioloba*	1	1	1	-28.1217	23.11441
35	*Vachelia erioloba*	1	1	1	-28.1217	23.11444
36	*Vachelia erioloba*	1	2	5	-28.1223	23.11647
37	*Vachelia erioloba*	1	2	1	-28.1218	23.1191
38	*Vachelia erioloba*	1	2	1	-28.1271	23.1166
39	*Vachelia erioloba*	1	2	1	-28.1281	23.11628
40	*Vachelia erioloba*	1	2	1	-28.1221	23.12003
41	*Vachelia erioloba*	2	1	1	-28.1273	23.11573
42	*Vachelia erioloba*	2	1	1	-28.1281	23.11637
43	*Vachelia erioloba*	2	1	1	-28.12	23.11819

44	*Vachelia erioloba*	2	1	1	-28.1117	23.11655
45	*Vachelia erioloba*	2	1	1	-28.1118	23.11654
46	*Vachelia erioloba*	2	1	1	-28.1127	23.11535
47	*Vachelia erioloba*	2	1	1	-28.1268	23.11904
48	*Vachelia erioloba*	2	2	1	-28.1138	23.10554
49	*Vachelia erioloba*	2	2	1	-28.113	23.11785
50	*Vachelia erioloba*	2	2	1	-28.1125	23.11777
51	*Vachelia erioloba*	2	2	1	-28.1115	23.11651
52	*Vachelia erioloba*	2	2	1	-28.112	23.11653
53	*Vachelia erioloba*	2	2	1	-28.1127	23.11643
54	*Vachelia erioloba*	2	2	1	-28.1237	23.11893
55	*Vachelia erioloba*	2	2	1	-28.1223	23.12008
56	*Vachelia erioloba*	2	2	1	-28.1222	23.11162
57	*Vachelia erioloba*	2	2	1	-28.1213	23.11643
58	*Vachelia erioloba*	2	2	1	-28.1264	23.11026
59	*Vachelia erioloba*	2	2	1	-28.1274	23.10927
60	*Vachelia erioloba*	2	2	1	-28.1262	23.11621
61	*Vachelia erioloba*	2	2	1	-28.1268	23.11974
62	*Vachelia erioloba*	2	2	1	-28.1282	23.11054
63	*Vachelia erioloba*	2	2	1	-28.1299	23.10582
64	*Vachelia erioloba*	2	3	1	-28.1222	23.12007
65	*Vachelia erioloba*	2	4	1	-28.1242	23.11176
66	*Vachelia erioloba*	2	4	1	-28.1243	23.1117
67	*Vachelia erioloba*	3	2	1	-28.1124	23.11646
68	*Vachelia erioloba*	3	2	1	-28.1125	23.11647
69	*Vachelia erioloba*	3	2	1	-28.1256	23.11417
70	*Vachelia erioloba*	3	3	1	-28.1125	23.11649
71	*Vachelia erioloba*	3	3	1	-28.1123	23.11529
72	*Vachelia erioloba*	3	3	1	-28.1238	23.11878
73	*Vachelia erioloba*	3	3	1	-28.1229	23.11899
74	*Vachelia erioloba*	3	3	1	-28.1228	23.11929
75	*Vachelia erioloba*	3	3	1	-28.1228	23.1198
76	*Vachelia erioloba*	3	3	1	-28.1265	23.11446
77	*Vachelia erioloba*	3	3	1	-28.1267	23.11956
78	*Vachelia erioloba*	3	3	1	-28.129	23.1105
79	*Vachelia erioloba*	3	3	1	-28.128	23.1167
80	*Vachelia erioloba*	3	3	1	-28.1146	23.11326
81	*Vachelia erioloba*	3	3	1	-28.1213	23.11186
82	*Vachelia erioloba*	3	4	1	-28.1211	23.11716
83	*Vachelia erioloba*	3	4	1	-28.1241	23.12007
84	*Vachelia erioloba*	3	4	1	-28.1269	23.1187
85	*Vachelia erioloba*	3	4	1	-28.1277	23.11934
86	*Vachelia erioloba*	3	4	1	-28.1229	23.11912
87	*Vachelia erioloba*	3	5	1	-28.1146	23.11339
88	*Vachelia erioloba*	4	2	1	-28.122	23.11999
89	*Vachelia erioloba*	4	3	1	-28.1126	23.11778
90	*Vachelia erioloba*	4	4	1	-28.1217	23.11996
91	*Vachelia erioloba*	4	4	1	-28.1278	23.11972
92	*Vachelia erioloba*	4	4	1	-28.1292	23.10445

93	*Vachelia erioloba*	4	4	1	-28.129	23.11057
94	*Vachelia erioloba*	4	4	1	-28.1287	23.11227
95	*Vachelia erioloba*	4	4	1	-28.1212	23.1119
96	*Vachelia erioloba*	4	4	1	-28.112	23.11653
97	*Vachelia erioloba*	5	4	1	-28.1115	23.11408
98	*Vachelia erioloba*	5	4	1	-28.1293	23.10941
99	*Vachelia erioloba*	5	5	1	-28.1269	23.11845
100	*Vachelia erioloba*	5	5	1	-28.1292	23.10963
101	*Vachelia erioloba*	5	5	1	-28.1117	23.11655
102	*Vachelia erioloba*	5	5	1	-28.1246	23.11984
103	*Vachelia erioloba*	5	8	1	-28.1229	23.11359
104	*Vachelia erioloba*	2	4	4	-28.1228	23.11531
105	*Vachelia erioloba*	1	1	1	-28.1119	23.11528
106	*Vachelia erioloba*	2	2	1	-28.1121	23.11651
107	*Vachelia erioloba*	4	4	1	-28.1212	23.112
108	*Vachelia erioloba*	1	1	1	-28.1231	23.11276
109	*Vachelia erioloba*	1	1	1	-28.1198	23.11882
110	*Vachelia erioloba*	5	5	1	-28.1265	23.11457
111	*Vachelia haematoxylon*	1	1	1	-28.1268	23.11308
112	*Ammocharis*			20	-28.1185	23.11068
113	*Vachelia haematoxylon*	1	1	1	-28.1261	23.11676
114	*Vachelia haematoxylon*	1	1	1	-28.1269	23.11742
115	*Vachelia haematoxylon*	1	1	1	-28.1279	23.11771
116	*Vachelia haematoxylon*	1	1	1	-28.1279	23.11783
117	*Boscia albitrunca*	0.2	0.5	1	-28.1272	23.11109
118	*Boscia albitrunca*	0.3	0.3	1	-28.1128	23.1126
119	*Boscia albitrunca*	0.3	0.5	1	-28.1173	23.11128
120	*Boscia albitrunca*	0.5	0.2	1	-28.1276	23.10842
121	*Boscia albitrunca*	0.5	0.5	1	-28.1196	23.111
122	*Boscia albitrunca*	0.5	1	1	-28.1233	23.10682
123	*Boscia albitrunca*	0.2	2	1	-28.1249	23.11774
124	*Ledebouria sp.*			5	-28.1134	23.11028
125	*Ledebouria sp.*			5	-28.119	23.11318
126	*Ledebouria sp.*			1	-28.1223	23.1162
127	*Ledebouria sp.*			10	-28.1246	23.10994
128	*Ledebouria sp.*			10	-28.1148	23.10542
129	*Ledebouria sp.*			10	-28.1162	23.10711
130	*Ledebouria sp.*			2	-28.1239	23.11357
131	*Ledebouria sp.*			20	-28.1145	23.10543
132	*Ledebouria sp.*			20	-28.1161	23.10505
133	*Ledebouria sp.*			5	-28.1243	23.11155
134	*Ledebouria sp.*			5	-28.1215	23.11545
135	*Ledebouria sp.*			5	-28.1283	23.11483
136	*Ledebouria sp.*			5	-28.1126	23.10989
137	*Ledebouria sp.*			5	-28.1132	23.10766
138	*Ledebouria sp.*			5	-28.1164	23.10624
139	*Ledebouria sp.*			5	-28.1162	23.10692
140	*Ledebouria sp.*			5	-28.1188	23.10511
141	*Ledebouria sp.*			10	-28.1203	23.10696

142	*Olea europea subsp. africana*	0.5	1	1	-28.124	23.10784
143	*Olea europea subsp. africana*	1	1	1	-28.1248	23.11348
144	*Olea europea subsp. africana*	1	1	1	-28.1239	23.1087
145	*Olea europea subsp. africana*	1	1	1	-28.1266	23.11429
146	*Olea europea subsp. africana*	1	1	1	-28.1264	23.11531
147	*Olea europea subsp. africana*	1	1	1	-28.1262	23.11596
148	*Olea europea subsp. africana*	1	1	1	-28.127	23.11783
149	*Olea europea subsp. africana*	1	2	1	-28.1249	23.11787
150	*Olea europea subsp. africana*	2	1	1	-28.125	23.10769
151	*Olea europea subsp. africana*	2	2	1	-28.1234	23.11623
152	*Olea europea subsp. africana*	2	2	1	-28.1275	23.10427
153	*Olea europea subsp. africana*	2	2	1	-28.1288	23.10657
154	*Olea europea subsp. africana*	3	2	1	-28.1176	23.10553
155	*Olea europea subsp. africana*	3	4	1	-28.1254	23.11052
156	*Olea europea subsp. africana*	0.5	0.5	1	-28.1213	23.10678
157	*Olea europea subsp. africana*	1	1	1	-28.1295	23.10808
158	*Olea europea subsp. africana*	0.5	0.5	1	-28.1239	23.10896
159	*Olea europea subsp. africana*	0.5	0.5	1	-28.1293	23.10898
160	*Olea europea subsp. africana*	1	1	1	-28.1241	23.10743
161	*Olea europea subsp. africana*	1	1	1	-28.1245	23.10406
162	*Olea europea subsp. africana*	1	1	1	-28.1149	23.10775
163	*Olea europea subsp. africana*	1	1	1	-28.115	23.10765
164	*Olea europea subsp. africana*	1	1	1	-28.1164	23.10499
165	*Olea europea subsp. africana*	1	1	1	-28.1165	23.10499
166	*Olea europea subsp. africana*	1	1	1	-28.1166	23.10568
167	*Olea europea subsp. africana*	1	1	1	-28.1166	23.10572
168	*Olea europea subsp. africana*	1	1	1	-28.1147	23.11313
169	*Olea europea subsp. africana*	1	1	1	-28.116	23.11206
170	*Olea europea subsp. africana*	1	1	1	-28.1174	23.11087
171	*Olea europea subsp. africana*	1	1	1	-28.1174	23.11088
172	*Olea europea subsp. africana*	1	1	1	-28.1232	23.10684
173	*Olea europea subsp. africana*	1	1	1	-28.119	23.10859
174	*Olea europea subsp. africana*	1	1	1	-28.1203	23.1068
175	*Olea europea subsp. africana*	1	1	1	-28.1201	23.1083
176	*Olea europea subsp. africana*	1	1	1	-28.1225	23.10544
177	*Olea europea subsp. africana*	1	1	1	-28.1269	23.10744
178	*Olea europea subsp. africana*	1	1	1	-28.1284	23.10424
179	*Olea europea subsp. africana*	1	1	1	-28.1289	23.10653
180	*Olea europea subsp. africana*	1	1	1	-28.1291	23.10441
181	*Olea europea subsp. africana*	1	1	1	-28.1295	23.10751
182	*Olea europea subsp. africana*	1	1	1	-28.1287	23.11263
183	*Olea europea subsp. africana*	1	1	1	-28.115	23.10796
184	*Olea europea subsp. africana*	1	2	1	-28.1237	23.10927
185	*Olea europea subsp. africana*	1	2	1	-28.12	23.10852
186	*Olea europea subsp. africana*	1	2	1	-28.1198	23.10921
187	*Olea europea subsp. africana*	2	1	1	-28.1295	23.10745
188	*Olea europea subsp. africana*	2	2	1	-28.1277	23.11314
189	*Olea europea subsp. africana*	2	2	1	-28.1295	23.10482
190	*Olea europea subsp. africana*	2	2	1	-28.1161	23.11193

191	*Olea europea subsp. africana*	2	2	1	-28.1175	23.11042
192	*Olea europea subsp. africana*	2	2	1	-28.117	23.11243
193	*Olea europea subsp. africana*	2	2	1	-28.1168	23.11322
194	*Olea europea subsp. africana*	2	2	1	-28.1181	23.11273
195	*Olea europea subsp. africana*	2	2	1	-28.1133	23.10714
196	*Olea europea subsp. africana*	2	2	1	-28.1148	23.10549
197	*Olea europea subsp. africana*	2	2	1	-28.1128	23.11246
198	*Olea europea subsp. africana*	2	2	1	-28.1151	23.10743
199	*Olea europea subsp. africana*	2	2	1	-28.1168	23.10502
200	*Olea europea subsp. africana*	2	2	1	-28.116	23.10813
201	*Olea europea subsp. africana*	2	2	1	-28.1152	23.11114
202	*Olea europea subsp. africana*	2	2	1	-28.1152	23.11124
203	*Olea europea subsp. africana*	2	3	1	-28.1225	23.11075
204	*Olea europea subsp. africana*	2	3	1	-28.1137	23.10907
205	*Olea europea subsp. africana*	2	3	1	-28.1181	23.10805
206	*Olea europea subsp. africana*	2	3	1	-28.122	23.10862
207	*Olea europea subsp. africana*	3	1	1	-28.1195	23.11089
208	*Olea europea subsp. africana*	3	2	1	-28.118	23.11311
209	*Olea europea subsp. africana*	3	3	1	-28.1292	23.10979
210	*Olea europea subsp. africana*	3	3	1	-28.1142	23.10699
211	*Olea europea subsp. africana*	3	3	1	-28.115	23.10758
212	*Olea europea subsp. africana*	3	3	1	-28.1154	23.10622
213	*Olea europea subsp. africana*	3	3	1	-28.1181	23.11274
214	*Olea europea subsp. africana*	3	3	1	-28.1188	23.10938
215	*Olea europea subsp. africana*	3	3	1	-28.1217	23.10966
216	*Olea europea subsp. africana*	3	5	1	-28.1236	23.10395
217	*Olea europea subsp. africana*	3	5	1	-28.1293	23.10882
218	*Olea europea subsp. africana*	4	8	1	-28.1267	23.11369
219	*Olea europea subsp. africana*	1	1	1	-28.1236	23.10514
220	*Olea europea subsp. africana*	1	3	1	-28.1237	23.10923
221	*Olea europea subsp. africana*	1	1	1	-28.122	23.10835
222	*Olea europea subsp. africana*	1	1	1	-28.122	23.10837
223	*Olea europea subsp. africana*	2	2	1	-28.1279	23.10662