Bird Survey Report For the proposed Photo-Voltaic Development, Ayios Ioannis, Malountas

On behalf of:

Engineer4U Civil Engineering Consultants LLC

EDMay 2021 SERVICES

EXECUTIVE SUMMARY

In line with the relevant Game & Fauna Service recommendations for such projects proposed in areas that are *not* designated Natura 2000 sites for birds (SPAs) and *not* within 'migration corridors', Bird surveys were carried out at land for the proposed Photo-Voltaic development close to Ayios Ioannis, Malountas during February and May 2021.

In total, twenty-five bird species were recorded on or immediately around the site, using the local farmland habitat. The species recorded included eight species of conservation priority (species categorised as European Birds of Conservation Concern by BirdLife International and/or listed in Annex I of the European Union Birds Directive 2009/147/EC).

Disclaimer Pear Educational Services Limited have made every effort to meet the client's brief. However, no survey ensures complete and absolute assessment of the changeable natural environment. The findings in this report were based on evidence from thorough survey: It is important to remember that evidence can be limited, hard to detect or concealed by site use and disturbance. When it is stated that no evidence was found or was evident at that point in time, it does not mean that species are not present or could not be present at a later date: The survey was required because habitats are suitable for a given protected species, and such species could colonise areas following completion of the survey.

Introduction

PEAR Educational Services was commissioned to undertake bird surveys to record. the wintering and resident birds and later migrating and breeding birds utilising the site and surrounding area which potentially could be affected by the Photo-Voltaic Project.

Site Description

Phrygana vegetation (thyme etc.) on low hills (it would be recommended that these areas to be left untouched and free of PV panels) with low-intensity cereals in flatter areas. Site is a valley with a seasonal torrent-bed and part of it already a PV plant (about 1/3 of total site area)

Aims and objectives.

The aim of the survey was to determine if significant bird species or population sizes were using the site for foraging, residing, or nesting at the time of the survey.

Quality Assurance

This survey and subsequent report was undertaken in line with PEAR's Integrated Management System (IMS). Our IMS places great emphasis on professionalism, technical excellence, quality, environmental and Health and Safety management. We are committed to working to the international standards BS EN ISO 9001:2008 and 14001:2004 as well as BS OHSAS 18001:2007

Methodology

Surveys were conducted in optimal weather conditions. The duration of the survey was over one hour and thirty minutes in length and followed a path along the perimeter of the survey site. This was performed as described in 'Bird Monitoring Methods' Gilbert *et al* 1998 to record numbers and distribution of wintering, migrant and resident birds using the site and the immediate habitats surrounding the site.

Each survey involved walking a slow-paced transect, following a route approximately parallel to the out-perimeter fence. All bird calls and visual observations were recorded to establish the distribution and abundance of the bird species utilising the survey site.

All parts of the Project Site were visited on foot to within 50 m where visibility extended or closer where visibility was needed. This path was chosen because of accessibility and allowed the surveyor to record species within the site and surrounding area, whilst reducing the likelihood of 'double' counting individual birds.



Outline of PV site in red Transect route followed in blue

Four surveys was undertaken one in February and three in May 2021. As recommended by the BTO, it was performed within three hours of dawn, when bird activity is usually at its peak.

The survey was based on a registration mapping methodology following the Line Transect methodology: During the visit, all birds seen or heard were recorded on a standard recording sheet along with any significant behaviour.

Survey results

Twenty-five bird species were recorded on or close to the site, of which all used habitats within the wider site boundary.

All birds heard or seen using the site (feeding, perching, resting) were recorded. These are illustrated in Table 1 below. A large proportion of activity recorded was singing or calls.

Among the twenty-five bird species recorded, there were ten species of conservation priority (species categorised as European Birds of Conservation Concern by BirdLife International and/or listed in Annex I of the European Union Birds Directive 2009/147/EC). These species are shown in **bold** in Table 1

A list of the local and scientific names and photo gallery of the birds recorded are provided in Appendices 1 & 2.

Conclusions

A species rich site, with notable species such as Stone Curlew, Cyprus warbler and later a Roller (all Annex I Birds Directive), it has a varied assemblage of birds typical of the size, habitat types and regional location. As stated in site description, it would be recommended to maintain the phrygana vegetation on the uncultivated slopes within the site to encourage species such as the Stone Curlew and Cyprus Warbler and to mitigate habitat loss from the proposed PV development.

Species*		Protection		Survey Dates			
English	Scientific	EUBD	SPEC	22/02/21	19/05/21	26/11/21	30/11/21
Chukar	Alectoris chukar	Annex IIB	3	5	3	3	4
Common Kestrel	Falco tinnunculus		3	1	1	1	
Stone curlew	Burhinus oedicnemus	Annex I		2		2	1
Collared Dove	Streptopelia decaocto			5	2	3	2
Wood Pigeon	Columba palumbus	Annex IIA		2	4	2	2
Crested lark	Gelerida cristata		3		3	5	2
Meadow Pipit	Anthus pratensis			1			
Barn Swallow	Hirundo rustica		3	1	7	6	4
Roller	Coracias garrulus	Annex I	2			1	1
Song Thrush	Turdus philomelos			1			
Stonechat	Saxicola torquata			6			

Table 1 - Summary of Survey Results

Spectacled Warbler	Sylvia conspicallata			4	1	3	3
Sardinian Warbler	Sylvia melanocephala			5	1	3	2
Cyprus Warbler	Sylvia melanothorax	Annex I		4	1	2	2
Blackcap	Sylvia atricapilla			1			
Chiffchaff	Phylloscopus collybita			1			
Zitting Cisticola	Cisticola juncidis			4	2	2	2
Great Tit	Parus major			3	1	1	2
Magpie	Pica pica	Annex IIB		7	7	5	6
Eurasian Jackdaw	Corvus monedula	Annex IIB		16	1	10	5
Common Linnet	Linaria cannabina		2	2		1	2
Chaffinch	Fringilla coelebs			4	1		
European Greenfinch	Chloris chloris			2	1	1	4
Serin	Serinus serinus		2	3		1	3
House Sparrow	Passer domesticus		3	11	c 40	18	24



Species in bold are defined as being of 'conservation priority' because they are listed in Annex I of the European Union Birds Directive (2009/147/EC) and/or categorised as European Birds of Conservation Concern (SPEC categories 1, 2 or 3) by BirdLife International. SPEC 2 species have an unfavourable conservation status and breeding populations concentrated in Europe, whereas SPEC 3 species again have an unfavourable conservation status, but their breeding populations are not concentrated in Europe

Appendices1

All Bird Species Recorded

Species

English Name	Scientific Name	Cypriot name
Chukar	Alectoris chukar	Πέρδικα
Common Kestrel	Falco tinnunculus	Κίτσης
Stone Curlew	Burhinus oedicnemus	Πετροτριλίδα
Collared Dove	Streptopelia decaocto	Φιλικουτούνι
Wood pigeon	Columba palumbus	ξύλο περιστέρι
Crested lark	Gelerida cristata	Σκορταλλός
Meadow pipit	Anthus pratensis	Λιβαδογαλούδι
Barn Swallow	Hirundo rustica	χελιδόνι
Roller	Coracias garrulus	Κράγκα
Song Thrush	Turdus philomelos	Τζίηκλα
Stonechat	Saxicola torquata	Παπαθκιά
Spectacled Warbler	Sylvia conspicallata	Καστανοτσιροβάκος
Sardinian Warbler	Sylvia melanocephala	Τρυποβάτης
Cyprus Warbler	Sylvia melanothorax	Τρυπομάζης
Chiffchaff	Phylloscopus collybita	Μουγιαννούδι
Blackcap	Sylvia atricapilla	Αμπελοπούλλι
Zitting Cisticola	Cisticola juncidis	Δουλαππάρης
Great Tit	Parus major	Τσαγκαρούδι
Chaffinch	Fringilla coelebs	Σπίνος
Greenfinch	Chloris chloris	Λουλουδάς
Linnet	Linaria cannabina	Τσακροσγάρτιλο
Serin	Serinus serinus	Μπασταρτοκανάρινο
Jackdaw	Corvus monedula	Κολοιός
Magpie	Pica pica	Κατσικορώνα
House Sparrow	Passer domesticus	Στρούθος

Appendices 2 <u>Photographs of the Birds</u> <u>Recorded</u>



Chukar - Alectoris chukar



Common Kestrel - Falco tinnunculus



Stone Curlew - Burhinus oedicnemus



Collared Dove - Streptopelia decaocto



Wood pigeon - Columba palumbus



Meadow pipit - Anthus pratensis



Barn Swallow - Hirundo rustica



Spectacled Warbler - Sylvia conspicallata



Song Thrush - Turdus philomelos



Sardinian Warbler - Sylvia melanocephala



Stonechat - Saxicola torquata



Cyprus Warbler - Sylvia melanothorax



Chiffchaff - Phylloscopus collybita



Blackcap - Sylvia atricapilla



Zitting Cisticola - Cisticola juncidis



Great tit - Parus major



Chaffinch - Fringilla coelebs



Greenfinch - Chloris chloris



Linnet - Linaria cannabina



Jackdaw - Corvus monedula



Serin - Serinus serinus



Magpie – Pica pica



House Sparrow – Passer domesticus