SPI-Birds Network and Database

Appendices to

SPI-Birds' standard format: A standard protocol for the collection of individual-level bird data

Version 1.1.1

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Produced by:

SPI-Birds team

Stefan J.G. Vriend, Liam D. Bailey,
Antica Culina & Marcel E. Visser

& SPI-Birds Network

Contents

1 Introduction

This document is created as part of the **SPI-Birds Network and Database** (www.spibirds.org). SPI-Birds is an international network of researchers and others who collect data on populations of individually marked birds, with the aim to improve data accessibility and transparency and to facilitate data reuse and collaboration.

This document lists the appendices to the newest version of SPI-Birds' standard protocol. Each appendix provides subsidiary matter to one or more variables (highlighted in red) of the standard format.

2 Appendices

A List of species

This table includes all study species (`speciesID`) that are part of SPI-Birds. For more information see: www.spibirds.org.

speciesID	Common name	Binomial name
PARMAJ	Great tit	*Parus major*
CYACAE	Blue tit	*Cyanistes caeruleus*
FICHYP	Pied flycatcher	*Ficedula hypoleuca*
SITEUR	Eurasian nuthatch	*Sitta europaea*
PERATE	Coal tit	*Periparus ater*
PASMON	Eurasian tree sparrow	*Passer montanus*
FICALB	Collared flycatcher	*Ficedula albicollis*
POEPAL	Marsh tit	*Poecile palustris*
POECIN	Siberian tit	*Poecile cinctus*
PHOPHO	Common redstart	*Phoenicurus phoenicurus*
JYNTOR	Eurasian wryneck	*Jynx torquilla*
LOPCRI	European crested tit	*Lophophanes cristatus*
EMBMEL	Black-headed bunting	*Emberiza melanocephala*
PRUMOD	Dunnock	*Prunella modularis*
CORMON	Eurasian jackdaw	*Corvus monedula*
CERFAM	Eurasian treecreeper	*Certhia familiaris*
STRALU	Tawny owl	*Strix aluco*
SITVAR	Varied tit	*Sittiparus varius*
PARMIN	Japanese tit	*Parus minor*
STEHIR	Common tern	*Sterna hirundo*
THACHL	Atlantic yellow-nosed albatross	*Thalassarche chlororhynchos*
PHOFUS	Sooty albatross	*Phoebetria fusca*
MACGIG	Southern giant petrel	*Macronectes giganteus*
DIODAB	Tristan albatross	*Diomedea dabbenena*
HYDLEU	Leach's storm petrel	*Hydrobates leucorhous*
CALALB	Sanderling	*Calidris alba*
PERINF	Siberian jay	*Perisoreus infaustus*
POEMON	Willow tit	*Poecile montanus*
TACBIC	Tree swallow	*Tachycineta bicolor*
PASSAN	Savannah sparrow	*Passerculus sandwichensis*
HAEOST	Eurasian oystercatcher	*Haematopus ostralegus*
PASDOM	House sparrow	*Passer domesticus*
STUVUL	Common starling	*Sturnus vulgaris*

This table is available in our GitHub repository: species_codes.csv.

B List of study sites

This table includes all study sites (`siteID`) hat are part of SPI-Birds. For more information see: www.spibirds.org.

siteID	siteName	country
AMM	Ammersee-Starnbergersee	Germany
ANS	Anserdennen	Netherlands
APP	Appelscha	Netherlands
ARV	Arvidsjaur	Sweden
ASK	Askainen	Finland
BAL	Balatonfüred	Hungary
BAN	Bandon Valley	Ireland
BAS	Banter See	Germany
BER	Berkenheuvel	Netherlands
BIR	Bird Island	USA
BOS	Boshoek	Belgium
BRG	Bergen's Arboretum	Norway
BUU	Buunderkamp	Netherlands
CAC	Can Catà	Spain
CAN	Cañada de los Pájaros	Spain
CAS	Cashel Farm Forest	UK
CHO	Choupal	Portugal
DAE	Dæli	Norway
DAL	Dalmeny	UK
DAZ	Dazlina-Ivinj	Croatia
DIN	Dinas	UK
DLO	Dlouhá Loučka	Czechia
DON	Doñana	Spain
DUN	Dunedin Botanic Garden	New Zealand
DVZ	Dieverzand	Netherlands
DWI	Dwingeloo	Netherlands
DWZ	Dwingelderzand	Netherlands
EDM	East Dartmoor	UK
FOR	Forstenrieder Park	Germany
GAR	Garscube Campus	UK
GLI	Glimmen	Netherlands
GOT	Gotland	Sweden
GOU	Gough Island	UK
GRO	Grobla-Niepołomice Forest	Poland

siteID	siteName	country
GUL	Gulya-domb	Hungary
HAR	Harjavalta	Finland
HOC	Hochstadt	Germany
HOG	Hoge Veluwe	Netherlands
HSF	Hochstetter Forland	Greenland
KAT	Loch Katrine	UK
KEI	Kent Island	Canada
KEL	Kelvingrove Park	
KEV	Kevo	Finland
KIL	Kilingi-Nõmme	Estonia
KUU	Kuusamo	Finland
LAH	La Hiruela	Spain
LAK	Lakselvdalen	Norway
LAN	Lancaster	UK
LAS	Lasy Szwalewskie	Poland
LBZ	Lheebroekerzand	Netherlands
LIE	Liesbos	Netherlands
LUN	Lundy Island	UK
MAL	Malmö	Sweden
MAR	Mariola	Spain
MAY	Mayachino	Russia
MET	Metu	Turkey
MIA	Maria	Netherlands
MIE	Mierzeja Wiślana	Poland
MIR	Miraflores	Spain
MIS	Miscellaneous populations	France
MON	Montpellier City	France
MOU	Moulis	France
MRC	Murcia	Spain
MSC	Montesclaros	Spain
MTV	Mont Ventoux	France
MUR	Muro	France
MZR	Midzomer	Netherlands
NAG	Forest of Dean	UK
NMI	North Monomoy Island	USA
OKE	Okehampton	UK
OOS	Oosterhout	Netherlands
OUL	Oulu	Finland
OWM	Oude Willem	Netherlands
PEE	Peerdsbos	Belgium
PET	Petrozavodsk	Russia

siteID	siteName	country
PEW	Peerdsbos West	Belgium
PIL	Pilis-Visegrád Mountains	Hungary
PIR	Pirio	France
RAD	Radofzell	Germany
RAM	Ram Island	USA
REV	Revinge	Sweden
ROB	Robertsau	France
ROU	Rouvière	France
RUI	Ruinen	Netherlands
SAG	Sagunto	Spain
SAL	Sallochy	UK
SCE	Scene	UK
SEK	Sekocin Forest	Poland
SFL	Schöpfl	Austria
SIL	Silwood	UK
SKG	Schiermonnikoog	Netherlands
SOB	Sobieszewo	Poland
SSQ	Santo Stefano Quisquina	Italy
STO	Stogi	Poland
STR	Strasbourg	France
SZE	Szentgál	Hungary
TEI	Teign Valley	UK
TOM	Tomakomai	Japan
TOR	Torenlaan	Netherlands
VAL	Valsaín	Spain
VEL	Velký Kosíř	Czechia
VES	Veszprém	Hungary
VIL	Vilma-puszta	Hungary
VLI	Vlieland	Netherlands
VOM	Vomb Fure	Sweden
VOS	Vosbergen	Netherlands
WAN	Wantzenau	France
WAR	Warnsborn	Netherlands
WES	Westerheide	Netherlands
WHZ	Westerholtz	Germany
WIL	Wilrijk	Belgium
WRS	Warsaw	Poland
WYT	Wytham Woods	UK
ZVE	Zvenigorod	Russia

This table is available in our GitHub repository: site_codes.csv.

C List of field studies

This table includes field studies (`studyID`) that are part of SPI-Birds. Note: multiple field studies can be conducted at a single study site (`siteID`). `pipelineID` is the three- or four-letter code of the pipeline, often derived from the person or organisation having custody of the data (`custodianName`) collected at the field study. Pipelines are available on GitHub as R scripts (format_<pipelineID>.R) For more information see: www.spibirds.org.

studyID	siteID	custodianName	pipelineID
AMM-1	AMM	Ludwig-Maximilian University	AMM
ANS-1	ANS	University of Groningen	
APP-1	APP	University of Groningen	
ARV-1	ARV	University of Konstanz	
ASK-1	ASK	University of Turku	
BAL-1	BAL	University of Pannonia	
BAN-1	BAN	University College Cork	BAN
BAS-1	BAS	Institute of Avian Research	
BER-1	BER	University of Groningen	
BIR-1	BIR	Ian Nisbet	
BOS-1	BOS	Evolutionary Ecology Group, University of Antwerp	UAN
BRG-1	BRG	Department of Biological Sciences, University of Bergen	
BUU-1	BUU	Netherlands Institute of Ecology (NIOO-KNAW)	NIOO
CAC-1	CAC	Museu de Ciències Naturals de Barcelona	
CAN-1	CAN	Estación Biológica de Doñana	
CAS-1	CAS	University of Glasgow	GLA
CHO-1	CHO	Marine and Environmental Sciences Centre	CHO
DAE-1	DAE	University of Oslo	
DAL-1	DAL	University of Edinburgh	
DAZ-1	DAZ	Croatian Academy of Sciences and Arts, Institute of Ornithology	
DIN-1	DIN	PiedFly.Net	PFN
DLO-1	DLO	Palacky University	
DON-1	DON	Estación Biológica de Doñana	
DUN-1	DUN	University of Otago	
DVZ-1	DVZ	University of Groningen	

studyID	siteID	custodianName	pipelineID
DWI-1	DWI	University of Groningen	
DWZ-1	DWZ	University of Groningen	
EDM-1	EDM	PiedFly.Net	PFN
FOR-1	FOR	Ludwig-Maximilian University	
GAR-1	GAR	University of Glasgow	GLA
GLI-1	GLI	University of Groningen	
GOT-1	GOT	Jagiellonian University	
GOT-2	GOT	Laboratory of Biometry and Evolutionary Biology CNRS	
GOU-1	GOU	RSPB	
GRO-1	GRO	Jagiellonian University	GRO
GUL-1	GUL	University of Pannonia	
HAR-1	HAR	University of Turku	HAR
HOC-1	HOC	Max Plank Institute for Ornithology	HOC
HOG-1	HOG	Netherlands Institute of Ecology (NIOO-KNAW)	NIOO
HSF-1	HSF	Université de Franche Comté	
KAT-1	KAT	PiedFly.Net	PFN
KEI-1	KEI	Bowdoin Scientific Station	
KEL-1	KEL	University of Glasgow	GLA
KEV-1	KEV	University of Turku	KEV
KIL-1	KIL	University of Tartu	KIL
KUU-1	KUU	University of Oulu	
LAH-1	LAH	La Hiruela	
LAK-1	LAK	Norwegian Institute for Nature Research	
LAN-1	LAN	Lancaster University	
LAS-1	LAS	Ornithological Station, Museum and Institute of Zoology, Polish Academy of Sciences	
LBZ-1	LBZ	University of Groningen	
LIE-1	LIE	Netherlands Institute of Ecology (NIOO-KNAW)	NIOO
LUN-1	LUN	University of Sheffield	
MAL-1	MAL	Lund University	
MAR-1	MAR	Universitat Politècnica de València	
MAY-1	MAY	Karelian Research Centre, Russian Academy of Sciences	
MET-1	MET	Middle East Technical University	
MIA-1	MIA	University of Groningen	

studyID	siteID	custodianName	pipelineID
MIE-1	MIE	Ornithological Station, Museum and Institute of Zoology, Polish Academy of Sciences	
MIR-1	MIR	National Museum of Natural Sciences, Madrid	
MIS-1	MIS	CEFE CNRS	MON
MON-1	MON	CEFE CNRS	MON
MOU-1	MOU	SETE CNRS	
MRC-1	MRC	University of Murcia	
MSC-1	MSC	La Hiruela	
MTV-1	MTV	CEFE CNRS	MON
MUR-1	MUR	CEFE CNRS	MON
MZR-1	MZR	University of Groningen	
NAG-1	NAG	PiedFly.Net	PFN
NMI-1	NMI	Ian Nisbet	
OKE-1	OKE	PiedFly.Net	PFN
OOS-1	OOS	Netherlands Institute of Ecology (NIOO-KNAW)	NIOO
OUL-1	OUL	University of Oulu	
OWM-1	OWM	University of Groningen	
PEE-1	PEE	Evolutionary Ecology Group, University of Antwerp	UAN
PET-1	PET	Karelian Research Centre, Russian Academy of Sciences	
PEW-1	PEW	Behavioural Ecology and Ecophysiology Group, University of Antwerp	
PIL-1	PIL	Department of Systematic Zoology and Ecology, Eötvös Loránd University	PIL
PIR-1	PIR	CEFE CNRS	MON
RAD-1	RAD	Max Plank Institute of Animal Behavior	
RAM-1	RAM	Ian Nisbet	
REV-1	REV	Lund University	
REV-2	REV	Lund University	
ROB-1	ROB	Institut Pluridisciplinaire Hubert Curien	
ROU-1	ROU	CEFE CNRS	MON
RUI-1	RUI	University of Groningen	
SAG-1	SAG	Cavanilles Institute of Biodiversity and Evolutionary Biology	
SAL-1	SAL	University of Glasgow	GLA
SCE-1	SCE	University of Glasgow	GLA

studyID	siteID	custodianName	pipelineID
SEK-1	SEK	Museum and Institute of Zoology, Polish Academy of Sciences	
SFL-1	SFL	University of Natural Resources and Life Sciences	
SIL-1	SIL	Imperial College London	
SKG-1	SKG	Dutch Centre for Field Ornithology	
SOB-1	SOB	Ornithological Station, Museum and Institute of Zoology, Polish Academy of Sciences	
SSQ-1	SSQ	Santo Stefano Quisquina	SSQ
STO-1	STO	Ornithological Station, Museum and Institute of Zoology, Polish Academy of Sciences	
STR-1	STR	Institut Pluridisciplinaire Hubert Curien	
SZE-1	SZE	University of Pannonia	
TEI-1	TEI	PiedFly.Net	PFN
TOM-1	TOM	Hokkaido University	
TOR-1	TOR	University of Groningen	
VAL-1	VAL	National Museum of Natural Sciences, Madrid	
VEL-1	VEL	Palacky University	VEL
VES-1	VES	University of Pannonia	
VIL-1	VIL	University of Pannonia	
VLI-1	VLI	Netherlands Institute of Ecology (NIOO-KNAW)	NIOO
VOM-1	VOM	Lund University	
VOS-1	VOS	University of Groningen	
WAN-1	WAN	Institut Pluridisciplinaire Hubert Curien	
WAR-1	WAR	Netherlands Institute of Ecology (NIOO-KNAW)	NIOO
WES-1	WES	Netherlands Institute of Ecology (NIOO-KNAW)	NIOO
WHZ-1	WHZ	Max Planck Institute for Ornithology	
WIL-1	WIL	Behavioural Ecology and Ecophysiology Group, University of Antwerp	
WRS-1	WRS	Wild Urban Evolution & Ecology Lab, University of Warsaw	
WYT-1	WYT	Edward Grey Institute, Department of Zoology, University of Oxford	WYT
ZVE-1	ZVE	Lomonosov Moscow State University	

This table is available in our GitHub repository: study_codes.csv.

D Decision tree for `calculatedClutchType`

See next page.

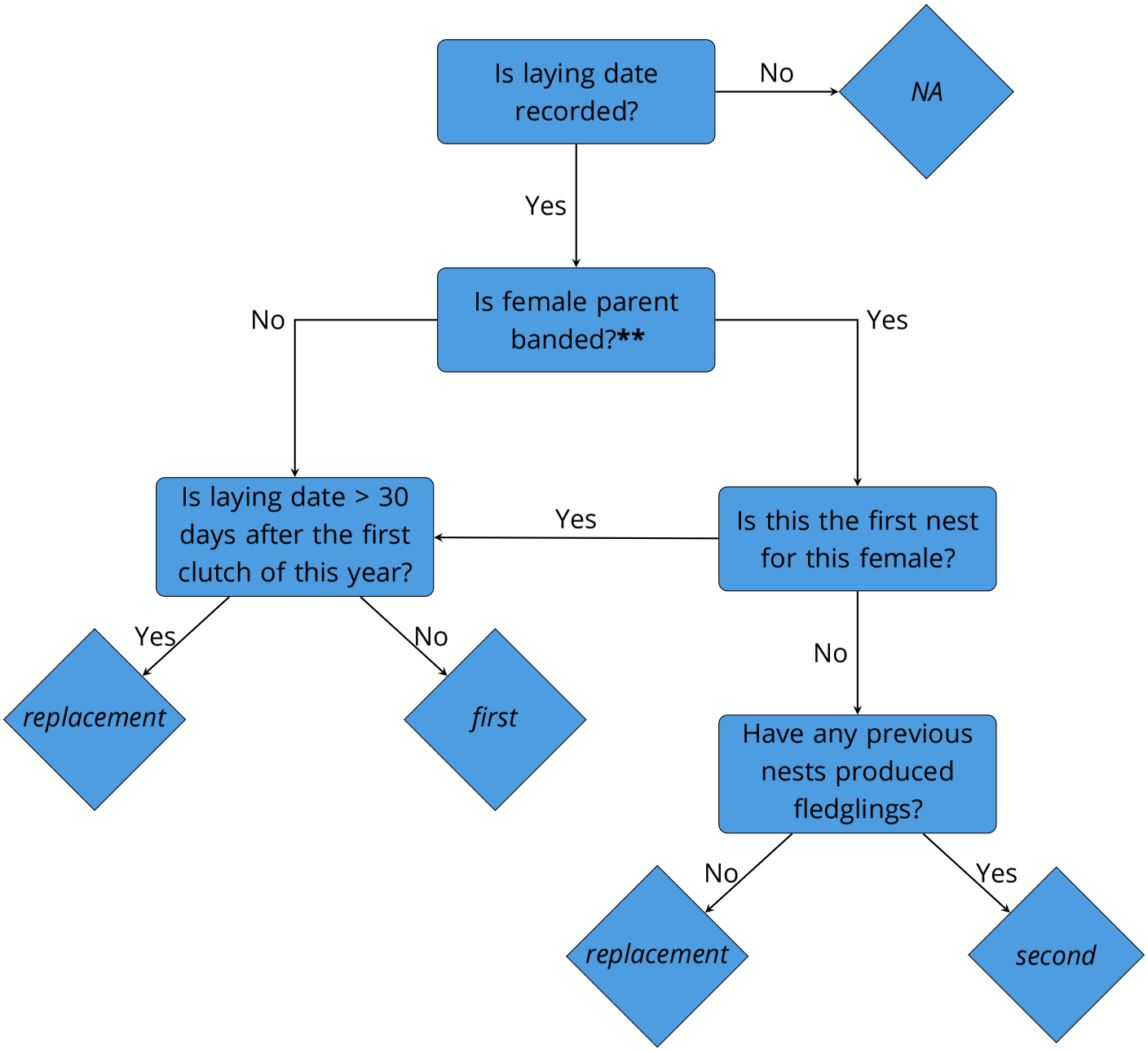

Figure 1: Decision tree for calculating `calculatedClutchType`.
**We assume any female with a previous successful clutch in the breeding season will have been caught and ringed. Therefore, the brood of an unringed female can only be replacement or first.

E List of habitat types

This table includes possible habitat types (`habitatID`) to describe locations according to the European Nature Information System (EUNIS) habitat classification scheme (**version 2012**).

The EUNIS habitat classification scheme is hierarchical (up to eight levels). The number of characters of the `habitatID` indicate the level. For example: 'G: Woodland, forest and other wooded land' (level 1) is parent to 'G1: Broadleaved deciduous woodland' (level 2), which is parent to 'G1.3: Mediterranean riparian woodland' (level 3). Data custodians are asked to provide the most detailed code where possible.

Note 1: habitats of level 4 to 8 (e.g., 'G1.43: Aspen swamp woods' or 'G1.7A1213: Pannonic sand steppe oak woods') are usable but *not* listed in this appendix. They are listed in the full table on our GitHub repository: habitat_codes.csv.

Note 2: the EUNIS habitat classification scheme is under review. Most habitat groups have been updated in 2022; three groups are pending: 'Inland surface waters', 'Mires, bogs and fens', and 'Constructed, industrial and other artificial habitats'. Once all have been updated, we will adopt the new classification scheme.

habitatID	level	habitatType
B	1	Coastal habitats
B1	2	Coastal dunes and sandy shores
B1.1	3	Sand beach driftlines
B1.2	3	Sand beaches above the driftline
B1.3	3	Shifting coastal dunes
B1.4	3	Coastal stable dune grassland (grey dunes)
B1.5	3	Coastal dune heaths
B1.6	3	Coastal dune scrub
B1.7	3	Coastal dune woods
B1.8	3	Moist and wet dune slacks
B1.9	3	Machair
B2	2	Coastal shingle
B2.1	3	Shingle beach driftlines
B2.2	3	Unvegetated mobile shingle beaches above the driftline
B2.3	3	Upper shingle beaches with open vegetation

habitatID	level	habitatType
B2.4	3	Fixed shingle beaches, with herbaceous vegetation
B2.5	3	Shingle and gravel beaches with scrub
B2.6	3	Shingle and gravel beach woodland
B3	2	Rock cliffs, ledges and shores, including the supralittoral
B3.1	3	Supralittoral rock (lichen or splash zone)
B3.2	3	Unvegetated rock cliffs, ledges, shores and islets
B3.3	3	Rock cliffs, ledges and shores, with angiosperms
B3.4	3	Soft sea-cliffs, often vegetated
C	1	Inland surface waters
C1	2	Surface standing waters
C1.1	3	Permanent oligotrophic lakes, ponds and pools
C1.2	3	Permanent mesotrophic lakes, ponds and pools
C1.3	3	Permanent eutrophic lakes, ponds and pools
C1.4	3	Permanent dystrophic lakes, ponds and pools
C1.5	3	Permanent inland saline and brackish lakes, ponds and pools
C1.6	3	Temporary lakes, ponds and pools
C1.7	3	Permanent lake ice
C2	2	Surface running waters
C2.1	3	Springs, spring brooks and geysers
C2.2	3	Permanent non-tidal, fast, turbulent watercourses
C2.3	3	Permanent non-tidal, smooth-flowing watercourses
C2.4	3	Tidal rivers, upstream from the estuary
C2.5	3	Temporary running waters
C2.6	3	Films of water flowing over rocky watercourse margins
C3	2	Littoral zone of inland surface waterbodies
C3.1	3	Species-rich helophyte beds
C3.2	3	Water-fringing reedbeds and tall helophytes other than canes
C3.3	3	Water-fringing beds of tall canes
C3.4	3	Species-poor beds of low-growing water-fringing or amphibious vegetation
C3.5	3	Periodically inundated shores with pioneer and ephemeral vegetation
C3.6	3	Unvegetated or sparsely vegetated shores with soft or mobile sediments
C3.7	3	Unvegetated or sparsely vegetated shores with non-mobile substrates
C3.8	3	Inland spray- and steam-dependent habitats
D	1	Mires, bogs and fens
D1	2	Raised and blanket bogs

habitatID	level	habitatType
D1.1	3	Raised bogs
D1.2	3	Blanket bogs
D2	2	Valley mires, poor fens and transition mires
D2.1	3	Valley mires
D2.2	3	Poor fens and soft-water spring mires
D2.3	3	Transition mires and quaking bogs
D3	2	Aapa, palsa and polygon mires
D3.1	3	Palsa mires
D3.2	3	Aapa mires
D3.3	3	Polygon mires
D4	2	Base-rich fens and calcareous spring mires
D4.1	3	Rich fens, including eutrophic tall-herb fens and calcareous flushes and soaks
D4.2	3	Basic mountain flushes and streamsides, with a rich arctic-montane flora
D5	2	Sedge and reedbeds, normally without free-standing water
D5.1	3	Reedbeds normally without free-standing water
D5.2	3	Beds of large sedges normally without free-standing water
D5.3	3	Swamps and marshes dominated by soft rush or other large rushes
D6	2	Inland saline and brackish marshes and reedbeds
D6.1	3	Inland saltmarshes
D6.2	3	Inland saline or brackish species-poor helophyte beds normally without free-standing water
E	1	Grasslands and lands dominated by forbs, mosses or lichens
E1	2	Dry grasslands
E1.1	3	Inland sand and rock with open vegetation
E1.2	3	Perennial calcareous grassland and basic steppes
E1.3	3	Mediterranean xeric grassland
E1.4	3	Mediterranean tall-grass and wormwood ([Artemisia]) steppes
E1.5	3	Mediterranean-montane grassland
E1.6	3	Subnitrophilous annual grassland
E1.7	3	Closed non-Mediterranean dry acid and neutral grassland
E1.8	3	Closed Mediterranean dry acid and neutral grassland
E1.9	3	Open non-Mediterranean dry acid and neutral grassland, including inland dune grassland

habitatID	level	habitatType
E1.A	3	Open Mediterranean dry acid and neutral grassland
E1.B	3	Heavy-metal grassland
E1.C	3	Dry mediterranean lands with unpalatable non-vernal herbaceous vegetation
E1.D	3	Unmanaged xeric grassland
E1.E	3	Trampled xeric grasslands with annuals
E2	2	Mesic grasslands
E2.1	3	Permanent mesotrophic pastures and aftermath-grazed meadows
E2.2	3	Low and medium altitude hay meadows
E2.3	3	Mountain hay meadows
E2.4	3	Iberian summer pastures (vallicares)
E2.5	3	Meadows of the steppe zone
E2.6	3	Agriculturally-improved, re-seeded and heavily fertilised grassland, including sports fields and grass lawns
E2.7	3	Unmanaged mesic grassland
E2.8	3	Trampled mesophilous grasslands with annuals
E3	2	Seasonally wet and wet grasslands
E3.1	3	Mediterranean tall humid grassland
E3.2	3	Mediterranean short humid grassland
E3.3	3	Sub-mediterranean humid meadows
E3.4	3	Moist or wet eutrophic and mesotrophic grassland
E3.5	3	Moist or wet oligotrophic grassland
E4	2	Alpine and subalpine grasslands
E4.1	3	Vegetated snow-patch
E4.2	3	Moss and lichen dominated mountain summits, ridges and exposed slopes
E4.3	3	Acid alpine and subalpine grassland
E4.4	3	Calcareous alpine and subalpine grassland
E4.5	3	Alpine and subalpine enriched grassland
E5	2	Woodland fringes and clearings and tall forb stands
E5.1	3	Anthropogenic herb stands
E5.2	3	Thermophile woodland fringes
E5.3	3	Bracken fields
E5.4	3	Moist or wet tall-herb and fern fringes and meadows
E5.5	3	Subalpine moist or wet tall-herb and fern stands
E6	2	Inland salt steppes
E6.1	3	Mediterranean inland salt steppes
E6.2	3	Continental inland salt steppes
E7	2	Sparsely wooded grasslands
E7.1	3	Atlantic parkland

habitatID	level	habitatType
E7.2	3	Sub-continental parkland
E7.3	3	Dehesa
F	1	Heathland, scrub and tundra
F1	2	Tundra
F1.1	3	Shrub tundra
F1.2	3	Moss and lichen tundra
F2	2	Arctic, alpine and subalpine scrub
F2.1	3	Subarctic and alpine dwarf willow scrub
F2.2	3	Evergreen alpine and subalpine heath and scrub
F2.3	3	Subalpine deciduous scrub
F2.4	3	Conifer scrub close to the tree limit
F3	2	Temperate and mediterranean-montane scrub
F3.1	3	Temperate thickets and scrub
F3.2	3	Submediterranean deciduous thickets and brushes
F4	2	Temperate shrub heathland
F4.1	3	Wet heaths
F4.2	3	Dry heaths
F4.3	3	Macaronesian heaths
F5	2	Maquis, arborescent matorral and thermo-Mediterranean brushes
F5.1	3	Arborescent matorral
F5.2	3	Maquis
F5.3	3	Pseudomaquis
F5.4	3	Spanish-broom ([Spartium junceum]) fields
F5.5	3	Thermo-Mediterranean scrub
F6	2	Garrigue
F6.1	3	Western garrigues
F6.2	3	Eastern garrigues
F6.3	3	Illyrian garrigues
F6.4	3	Black Sea garrigues
F6.5	3	Macaronesian garrigues
F6.6	3	Supra-Mediterranean garrigues
F6.7	3	Mediterranean gypsum scrubs
F6.8	3	Xero-halophile scrubs
F7	2	Spiny Mediterranean heaths (phrygana, hedgehog-heaths and related coastal cliff vegetation)
F7.1	3	West Mediterranean spiny heaths
F7.2	3	Central Mediterranean spiny heaths
F7.3	3	East Mediterranean phrygana
F7.4	3	Hedgehog-heaths
F8	2	Thermo-Atlantic xerophytic scrub

habitatID	level	habitatType
F8.1	3	Canary Island xerophytic scrub
F8.2	3	Madeiran xerophytic scrub
F9	2	Riverine and fen scrubs
F9.1	3	Riverine scrub
F9.2	3	Willow carr and fen scrub
F9.3	3	Southern riparian galleries and thickets
FA	2	Hedgerows
FA.1	3	Hedgerows of non-native species
FA.2	3	Highly-managed hedgerows of native species
FA.3	3	Species-rich hedgerows of native species
FA.4	3	Species-poor hedgerows of native species
FB	2	Shrub plantations
FB.1	3	Shrub plantations for whole-plant harvesting
FB.2	3	Shrub plantations for leaf or branch harvest
FB.3	3	Shrub plantations for ornamental purposes or for fruit, other than vineyards
FB.4	3	Vineyards
G	1	Woodland, forest and other wooded land
G1	2	Broadleaved deciduous woodland
G1.1	3	Riparian and gallery woodland, with dominant alder, birch, poplar or willow
G1.2	3	Mixed riparian floodplain and gallery woodland
G1.3	3	Mediterranean riparian woodland
G1.4	3	Broadleaved swamp woodland not on acid peat
G1.5	3	Broadleaved swamp woodland on acid peat
G1.6	3	Beech woodland
G1.7	3	Thermophilous deciduous woodland
G1.8	3	Acidophilous oak-dominated woodland
G1.9	3	Non-riverine woodland with birch, aspen or rowan
G1.A	3	Meso- and eutrophic oak, hornbeam, ash, sycamore, lime, elm and related woodland
G1.B	3	Non-riverine alder woodland
G1.C	3	Highly artificial broadleaved deciduous forestry plantations
G1.D	3	Fruit and nut tree orchards
G2	2	Broadleaved evergreen woodland
G2.1	3	Mediterranean evergreen oak woodland
G2.2	3	Eurasian continental sclerophyllous woodland
G2.3	3	Macaronesian laurel woodland
G2.4	3	Olive - carob woodland
G2.5	3	Palm groves

habitatID	level	habitatType
G2.6	3	Holly woods
G2.7	3	Canary Island heath woodland
G2.8	3	Highly artificial broadleaved evergreen forestry plantations
G2.9	3	Evergreen orchards and groves
G3	2	Coniferous woodland
G3.1	3	Fir and spruce woodland
G3.2	3	Alpine larch - Arolla woodland
G3.3	3	Mountain pine ([Pinus uncinata]) woodland
G3.4	3	Scots pine woodland south of the taiga
G3.5	3	Black pine ([Pinus nigra]) woodland
G3.6	3	Subalpine mediterranean pine woodland
G3.7	3	Lowland to montane mediterranean pine woodland (excluding black pine [Pinus nigra])
G3.8	3	Canary Island pine ([Pinus canariensis]) woodland
G3.9	3	Coniferous woodland dominated by [Cupressaceae] or [Taxaceae]
G3.A	3	Spruce taiga woodland
G3.B	3	Pine taiga woodland
G3.C	3	Larch taiga woodland
G3.D	3	Boreal bog conifer woodland
G3.E	3	Nemoral bog conifer woodland
G3.F	3	Highly artificial coniferous plantations
G4	2	Mixed deciduous and coniferous woodland
G4.1	3	Mixed swamp woodland
G4.2	3	Mixed taiga woodland with birch
G4.3	3	Mixed sub-taiga woodland with acidophilous oak
G4.4	3	Mixed Scots pine - birch woodland
G4.5	3	Mixed Scots pine - beech woodland
G4.6	3	Mixed fir - spruce - beech woodland
G4.7	3	Mixed Scots pine - acidophilous oak woodland
G4.8	3	Mixed non-riverine deciduous and coniferous woodland
G4.9	3	Mixed deciduous woodland with [Cupressaceae] or [Taxaceae]
G4.A	3	Mixed woodland with [Cupressaceae], [Taxaceae] and evergreen oak
G4.B	3	Mixed mediterranean pine - thermophilous oak woodland
G4.C	3	Mixed Scots pine - thermophilous oak woodland
G4.D	3	Mixed Black pine ([Pinus nigra]) - evergreen oak woodland

habitatID	level	habitatType
G4.E	3	Mixed mediterranean pine - evergreen oak woodland
G4.F	3	Mixed forestry plantations
G5	2	Lines of trees, small anthropogenic woodlands, recently felled woodland, early-stage woodland and coppice
G5.1	3	Lines of trees
G5.2	3	Small broadleaved deciduous anthropogenic woodlands
G5.3	3	Small broadleaved evergreen anthropogenic woodlands
G5.4	3	Small coniferous anthropogenic woodlands
G5.5	3	Small mixed broadleaved and coniferous anthropogenic woodlands
G5.6	3	Early-stage natural and semi-natural woodlands and regrowth
G5.7	3	Coppice and early-stage plantations
G5.8	3	Recently felled areas
H	1	Inland unvegetated or sparsely vegetated habitats
H1	2	Terrestrial underground caves, cave systems, passages and waterbodies
H1.1	3	Cave entrances
H1.2	3	Cave interiors
H1.3	3	Dark underground passages
H1.4	3	Lava tubes
H1.5	3	Underground standing waterbodies
H1.6	3	Underground running waterbodies
H1.7	3	Disused underground mines and tunnels
H2	2	Screes
H2.1	3	Cold siliceous screes
H2.2	3	Cold limestone screes
H2.3	3	Temperate-montane acid siliceous screes
H2.4	3	Temperate-montane calcareous and ultra-basic screes
H2.5	3	Acid siliceous screes of warm exposures
H2.6	3	Calcareous and ultra-basic screes of warm exposures
H3	2	Inland cliffs, rock pavements and outcrops
H3.1	3	Acid siliceous inland cliffs
H3.2	3	Basic and ultra-basic inland cliffs
H3.3	3	Macaronesian inland cliffs
H3.4	3	Wet inland cliffs
H3.5	3	Almost bare rock pavements, including limestone pavements
H3.6	3	Weathered rock and outcrop habitats
H4	2	Snow or ice-dominated habitats
H4.1	3	Snow packs

habitatID	level	habitatType
H4.2	3	Ice caps and true glaciers
H4.3	3	Rock glaciers and unvegetated ice-dominated moraines
H5	2	Miscellaneous inland habitats with very sparse or no vegetation
H5.1	3	Fjell fields and other freeze-thaw features with very sparse or no vegetation
H5.2	3	Glacial moraines with very sparse or no vegetation
H5.3	3	Sparsely- or un-vegetated habitats on mineral substrates not resulting from recent ice activity
H5.4	3	Dry organic substrates with very sparse or no vegetation
H5.5	3	Burnt areas with very sparse or no vegetation
H5.6	3	Trampled areas
H6	2	Recent volcanic features
H6.1	3	Active volcanic features
H6.2	3	Inactive recent volcanic features
I	1	Regularly or recently cultivated agricultural, horticultural and domestic habitats
I1	2	Arable land and market gardens
I1.1	3	Intensive unmixed crops
I1.2	3	Mixed crops of market gardens and horticulture
I1.3	3	Arable land with unmixed crops grown by low-intensity agricultural methods
I1.4	3	Inundated or inundatable croplands, including rice fields
I1.5	3	Bare tilled, fallow or recently abandoned arable land
I2	2	Cultivated areas of gardens and parks
I2.1	3	Large-scale ornamental garden areas
I2.2	3	Small-scale ornamental and domestic garden areas
I2.3	3	Recently abandoned garden areas
J	1	Constructed, industrial and other artificial habitats
J1	2	Buildings of cities, towns and villages
J1.1	3	Residential buildings of city and town centres
J1.2	3	Residential buildings of villages and urban peripheries
J1.3	3	Urban and suburban public buildings
J1.4	3	Urban and suburban industrial and commercial sites still in active use
J1.5	3	Disused constructions of cities, towns and villages
J1.6	3	Urban and suburban construction and demolition sites
J1.7	3	High density temporary residential units
J2	2	Low density buildings
J2.1	3	Scattered residential buildings
J2.2	3	Rural public buildings

habitatID	level	habitatType
J2.3	3	Rural industrial and commercial sites still in active use
J2.4	3	Agricultural constructions
J2.5	3	Constructed boundaries
J2.6	3	Disused rural constructions
J2.7	3	Rural construction and demolition sites
J3	2	Extractive industrial sites
J3.1	3	Active underground mines
J3.2	3	Active opencast mineral extraction sites, including quarries
J3.3	3	Recently abandoned above-ground spaces of extractive industrial sites
J4	2	Transport networks and other constructed hard-surfaced areas
J4.1	3	Disused road, rail and other constructed hard-surfaced areas
J4.2	3	Road networks
J4.3	3	Rail networks
J4.4	3	Airport runways and aprons
J4.5	3	Hard-surfaced areas of ports
J4.6	3	Pavements and recreation areas
J4.7	3	Constructed parts of cemeteries
J5	2	Highly artificial man-made waters and associated structures
J5.1	3	Highly artificial saline and brackish standing waters
J5.2	3	Highly artificial saline and brackish running waters
J5.3	3	Highly artificial non-saline standing waters
J5.4	3	Highly artificial non-saline running waters
J5.5	3	Highly artificial non-saline fountains and cascades
J6	2	Waste deposits
J6.1	3	Waste resulting from building construction or demolition
J6.2	3	Household waste and landfill sites
J6.3	3	Non-agricultural organic waste
J6.4	3	Agricultural and horticultural waste
J6.5	3	Industrial waste
X	1	Habitat complexes
X01	2	Estuaries
X02	2	Saline coastal lagoons
X03	2	Brackish coastal lagoons
X04	2	Raised bog complexes
X05	2	Snow patches
X06	2	Crops shaded by trees

habitatID	level	habitatType
X07	2	Intensively-farmed crops interspersed with strips of natural and/or semi-natural vegetation
X09	2	Pasture woods (with a tree layer overlying pasture)
X10	2	Mosaic landscapes with a woodland element (bocages)
X11	2	Large parks
X13	2	Land sparsely wooded with broadleaved deciduous trees
X14	2	Land sparsely wooded with broadleaved evergreen trees
X15	2	Land sparsely wooded with coniferous trees
X16	2	Land sparsely wooded with mixed broadleaved and coniferous trees
X18	2	Wooded steppe
X19	2	Wooded tundra
X20	2	Treeline ecotones
X22	2	Small city centre non-domestic gardens
X23	2	Large non-domestic gardens
X24	2	Domestic gardens of city and town centres
X25	2	Domestic gardens of villages and urban peripheries
X27	2	Machair complexes
X28	2	Blanket bog complexes
X29	2	Salt lake islands
X30	2	Bentho-pelagic habitats
X31	2	Mosaics of mobile and non-mobile substrata in the littoral zone
X32	2	Mosaics of mobile and non-mobile substrata in the infralittoral zone
X33	2	Mosaics of mobile and non-mobile substrata in the circalittoral zone
X34	2	Anchihaline caves
X36	2	Depressions (pody) of the Steppe zone

This table is available in our GitHub repository: habitat_codes.csv.