

QSR 2004
9. Beaches and Dunes
TMAP typology:

TMAP Ad hoc working group on beaches
and dunes
DUNES 06-1
ZMAW, Hamburg
9 - 10 March 2006

TMAP typology (QSR 2004, beaches and dunes):

- It starts with the salt marsh group
 - If working in coastal areas / vegetation (Wadden Sea)
 - there are more than salt marshes
 - there must be also a comparable typology for dunes and dune slacks
 - Conditions of the typology:
 - to use/work with all existing vegetation units/types (e.g. Schaminée, SBB-Code, Pott, Drachenfells, Dierssen, Natura 2000 habitat types (FFH)
 - it's nothing new, it combines only existing types from different scales!
 - it must be useful for GIS-, data bank-work (Code: e.g. X.5.1)
 - Important for description, recording and comparison of:
 - actual or historical situations (e.g. status of act./historical vegetation, existing maps and relevés, vegetation from the NL/D/DK),
 - "problems" of plants/vegetation (e.g. Rosa rugosa, Campylopus introfl.),
 - nature conservation/management (e.g. mowing, grazing, burning)
- = "monitoring"

Monitoring of dunes and dune slacks with TMAP types:

1.

Code:	TMAP-Einheiten:		
X.0	Dunes		
H.0	Dune slacks		

2.

Code:	TMAP-Einheiten:	Vegetation:	FFH:
X.3	Embryonic dunes	Elymo-Agropyretum	2110
X.4	White dunes	Elymo-Ammophiletum	2120
X.5	Dune grassland	Koelerion-, Corynephorion-Veg.	2130
X.6	Empetrum nigrum type	Hieracio-Empetretum	2140
X.6.2	Calluna vulgaris type	dom. Calluna vulgaris	2150
X.7.1	Hippophae rhamnoides type	Hippophaeo-Sambucetum	2160
X.7.2	Salix repens agg. type	Salix repens agg., Pyrolo-Salicet.	2170
X.8.1	Populus tremula type	Populus tr., Quercus r.	2180
H.0	Dune slacks		2190

2180



2160



2150



2140



2170



2110



2120



2130



2180



2160



2150



2140



2170



2190



2110



2120



2130



Monitoring of dunes and dune slacks with TMAP types:

3.

Code:	TMAP-Einheiten:	Vegetation:	FFH:	Biotoptypen:
X.3	Embryonic dunes	Elymo-Agropyretum	2110	KDV
X.4	White dunes	Elymo-Ammophiletum	2120	KDW
X.5	Dune grassland	Koelerion-, Corynephorion-Veg.	2130	KDG
X.6	Empetrum nigrum type	Hieracio-Empetretum	2140	KDH
X.6.2	Calluna vulgaris type	dom. Calluna vulgaris	2150	KDHc
X.7.1	Hippophae rhamnoides type	Hippophao-Sambucetum	2160	KDB
X.7.2	Salix repens agg. type	Salix repens agg., Pyrolo-Salicet.	2170	KDN, KNN
X.7.3	Rosa canina type	Rhamno-Prunetea-Veg.	-	KDZ
X.7.4	Rosa rugosa type	Rosa rugosa-Veg.	-	KDX
X.8.1	Populus tremula type	Populus tr., Quercus r.	2180	WPB
X.8.2	Pinus spp. type	Pinus spp.	-	WZK, WZN

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2180



2190



2190



2190



2190



2190



2190

Monitoring of dunes and dune slacks with TMAP types:

3.

Code:	TMAP-Einheiten:	Vegetation:	FFH:	Biotoptypen:
H.1.3	Littorella uniflora type	Littorelletea uniflorae-Veg.	2190	KNH, KNP
H.2.1	Carex trinervis type	Caricion nigrae-Veg.	2190	KNA
H.2.2	Schoenus nigricans type	Caricion davallianae-Veg.	2190	KNK
H.3	Erica tetralix type	Empetro-Ericetum	2190	KNE
H.4	Dune slack reedbed	Scirpo-Phragmitetum	2190	KNR
H.5	Dune slack willow shrubbery	Salix cinerea-Salix arenaria	2190	KNB
H.6	Dune slack woodland	Betula pub., Alnus glutinosa	2180	WNB, WAT

Monitoring of dunes and dune slacks with TMAP types:

3.

Code:	TMAP-Einheiten:	Vegetation:	FFH:	Biotoptypen:
S.0	Salt marsh			
S.1.1	Spartina type	Spartinetum anglicae	1320	KWG
S.1.2	Salicornia type	Salicornieten, Suaedetum	1310	KWQ, KSF, KWW, KVV
S.2.1	Puccinellia maritima type	Puccinellietum maritimae	1330	KHU, KHW
S.2.4	Atriplex portulacoides type	Halimionetum portulacoidis	1330	KHU
S.3	High marsh	Armerion maritimae	1330	KHO, KHI
S.3.7	Elymus spp. type	Agropyretum littoralis	1330	KHQ
S.5	Brackish marsh	Bolboschoenetum maritimae, Scirpo-Phragmitetum (brackish)	1330	KBR, KR, KRS, KRP
S.11	Lagunen in salt marsh areas		1150	KPL



Additional:

3.

Code:	TMAP-Einheiten:	Vegetation:	FFH:	Biotoptypen:
G.0	Grassland	Molinio-Arrhenatheretea-Veg.		
A.0	Settlements			



Example:

Typology of dune and dune slack vegetation in the Wadden Sea area

