

# H2110 - Embryonic shifting dunes

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## H2110 - Embryonic shifting dunes

### General

General characteristics	
Common name	Embryonic shifting dunes
Region	Europe
Water systems	coastal waters
Nature parameter	Habitat types
HR nr	H2110
Fact sheet by	K.E. van de Wolfshaar



Picture: Schaminee

### Description habitat

#### General occurrence

This habitat type includes small dunes covered with Sand couch grass (*Elytrigia juncea* subsp. *boreoatlantica*), mostly occurring in an intimate mosaic with bare embryo dunes, drift line vegetation and the beach. This type can be found in developing coasts where it represents the first stage of dune development. Such embryo dunes can be found at the upper beach, mostly at the feet of European Beachgrasses (type [H2120](#)) into which they can be converted after further sand drifts. Besides Sand couch, only few species have adapted themselves to the dynamic circumstances. Sea sandwort (*Honckeya peploides*), Corn sow thistle (*Sonchus arvensis* var. *maritimus*) and Sea lyme grass, *Leymus arenarius* are the most noticeable examples. Characteristic species of the drift line are: European searocket (*Cakile maritima*), Spineless saltwort (*Salsola kali* subsp. *kali*), Triangle orache (*Atriplex prostrata*) and- less common - Frosted orache (*Atriplex laciniata*), Scotland orache (*Atriplex glabriuscula*) and Yellow hornpoppy (*Glaucium flavum*). The best examples of this type can be found on locations with a dynamic coastline, such as parts of the Wadden Sea Islands and South-West Netherland . [#1](#).

#### Environmental boundary conditions

Strong wind causes the destruction of short-lived embryo dunes. Sometimes, new embryo dunes can be created at other locations in the area [#1](#). This habitat type consists of the upper beach and outer dunes [#2](#). Sand couch can not survive if there is too much dynamics. If dynamics is low, this habitat type transfers into the habitat type [H2120](#). Embryo dunes represent the first stages of dune construction.

#### Control and growth opportunities

Embryo dunes only shortly exist on one location. They change due to the effect of wind and water. Therefore, this type of dune is also known as shifting dunes [#1](#)..

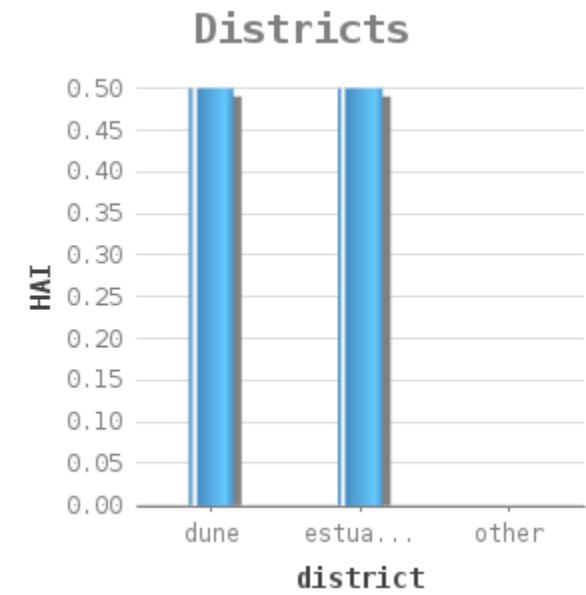
### Dose-effect relations

These dose-effect relations are based on the habitat factors of Sand couch, occurring on embryo dunes, beaches and at the foot of dunes. Habitat factors of embryo dunes are difficult to formulate, as it relates to a landscape characteristic.

Flowchart

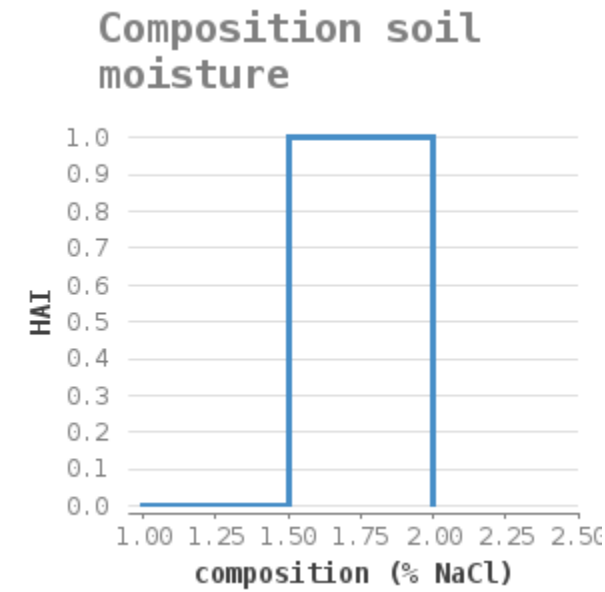
Unknown macro: 'flowchart'

Dose-effect relations



district	HAI
marine1	
dune	0.5
estuaries	0.5
other	0

Reference: #2



composition (% NaCl)	HAI
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1	0
1.5	0
1.5	1
2	1
>2	0

Reference: [#2](#)

Height with respect to height beach (m)	HAI
0 - 1	1
>1	0

Reference: [#2](#)

Salinity	HAI
salt	1
brackish	1
fresh	0

Reference: [#1](#)

Soil acidity	HAI
neutral	1
basic	1
other	0

Reference: [#1](#)

## Uncertainty and validation

 These dose-effect relations have not been validated.

## Applicability

These dose-effect relations are based on habitat factors of Sand couch and apply to a stretch of coast, dune foots and embryo dunes. With the current dose-effect relations, it is not possible to determine the suitability for this habitat type, as it concerns a landscape characteristic.

## Example project

At present, there is no example of a project available.

## References

1 <http://www.minlnv.nl/natura2000>

2 Weeda, E.J., J.H.J. Schaminee, L. van Duuren (2003). Atlas van Plantengemeenschappen in Nederland. Deel3 Kust en binnenlandse pioniermilieus. KNNV Uitgeverij.