**Example of reporting on ‘Main pressures and threats’ and ‘Conservation measures’ 1310 Salicornia and other annuals colonizing mud and sand, SE, BOR and CON) – DRAFT**

**Habitat name:** Salicornia and other annuals colonizing mud and sand (1310)

**Country:** Sweden

**Region:** Boreal and Continental

**Brief description of habitat/species and its status**

1310 (Salicornia and other annuals colonizing mud and sand) is a habitat composed of salt tolerant annuals as *Salicornia* spp., *Sueda maritima*, colonising periodically inundated muds and sands of marine salt marshes. The habitat often occurs as smaller patches in habitat 1330 (Atlantic salt meadows) and 1630 (Boreal Baltic coastal meadows), there forms patches with mainly salty mud with a high salt content, wish avoid grasses and other perennial species to grow. Only special adapted, salt tolerant, mainly annuals could occupy this habitat. On the west coast the habitat also could occur independent from 1330 and 1630, as narrow strips below cliffs and rocks at the seashore.

The Swedish sites of 1310 occur in southern Sweden on the west coast, most sites in Boreal biogeographical region, there are few sites in the southern part of the coast in the Continental Biogeographical region. Along the Baltic coast., most of the sites occur on the islands of Öland and Gotland.

**Free-word description of ‘real life’ pressures**

The main pressures are:

* **Lack or to low grazing pressure –** When the habitat is associated with 1330 or 1630, those habitats is often dependent on grazing by cattle or geese, and if the grazing pressure is too low the surrounding vegetation easily grow over the salty patches with 1330. The lack of trampling from cattle may also have a negative impact as the trampling helps to keep salty patches open.
* **Pollution from the sea –** Most problematic is deposition of plastic debris, that could cover the vegetation.
* **Invasive species –** A South-African species *Cotula coronopifolia* has expanded along the Swedish coast the last 10 years and is in special favour of 1330, there it takes over and compete with Salicornia and change the habitat
* **Sea level rise caused by climate change –** In the parts of southern Sweden, sea level is rising in a accelerating speed. If the sea level rise is to fast, the creation of salt pans will not have time enough to be created.

Other factors, the impact of which is currently uncertain and/or of increasing importance in the future, include:

* Length of vegetation season what will have impact on seed production and level of dispersal on both characteristic species and invasive species.
* Loss of habitat due to exploitation for industry or recreation.
* impact of plant collection for food, *Salicorna* has been a popular ingredient in exclusive dishes.

**Reporting for pressures and threats**

**A. Introduction**

Different interacting factors have been identified as causing the decline of 1330. Invasive alien species, lack of grazing and pollution from the sea are recognized as being the most important ultimate causes of the declining trend in quality of the habitat.

Climate change affecting the sea level could be an accelerating problem in the future, as the habitat will be squeezed between the sea and more well-established habitats.

**B. Annotated table of pressures and threats**

| **Pressure from the list** | **Timing** | **Scope** | **Influence** | **Explanation** |
| --- | --- | --- | --- | --- |
| PA05 Abandonment of management/use of grasslands and other agricultural and agroforestry systems (e.g. cessation of grazing, mowing or traditional farming) | ongoing and likely to be in the future | minority (<50%) | High | The sites that are grazed and not protected in nature reserves, will always be at risk for abandonment, and some more sites suffer from this every year. Even sites in Nature Reserves are at risk as the number of grazing animals are limited in some parts of Sweden.  Debris are floating ashore every year, some years more and some less. After severe storms a lot of plastic and other sorts of debris could accumulate in big quantities and cover important parts of the habitat and spoiling the production of seeds.  *Cotula coronopifolia* is expanding along the Swedish coast and most sites are affected on Öland and some on Gotland and the west coast of Sweden. It is expanding northwards year by year. In Öland the invasive *Cotula coronopifolia* is overgrowing and dominating several of the most vulnerable sites for the habitat. |
| PF10 Residential, commercial and industrial activities and structures generating marine pollution | ongoing and likely to be in the future | majority (50–90%) | Medium |
| PI02 Other invasive alien species (other than species of Union concern) | ongoing and likely to be in the future | majority (50–90%) | High |
| PJ04 Sea-level rise due to climate change | ongoing and likely to be in the future | whole (>90%) | Medium | Climate change with higher temperature gives that the sea level is raising (faster than the land upheaval after the last ice-age. The speed of sea rise is increasing. The problem is small today but will be more and more accentuated in the coming decade. |