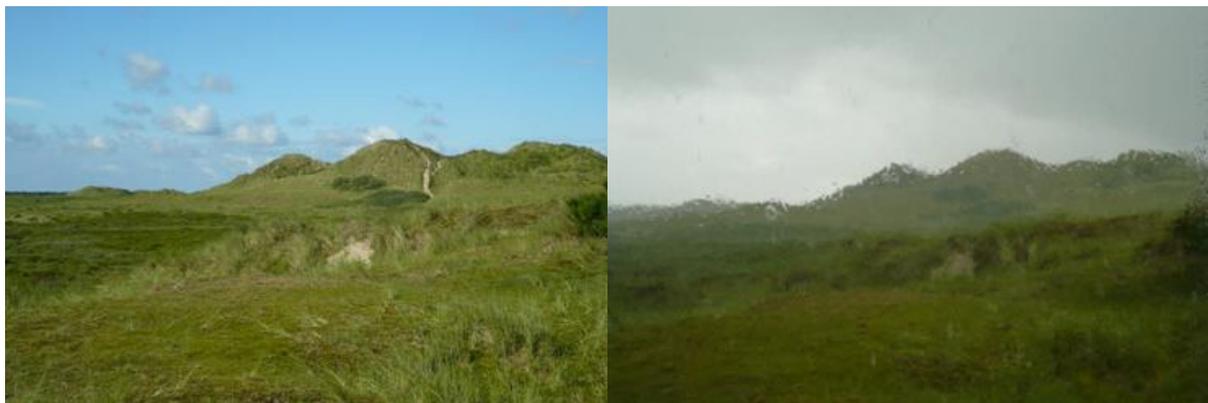


Island climate

G.P. Können, Terschelling Diary 2008/2

Everyone feels it and everyone knows it: the climate of a small island is not like that of the inland. The differences: there is more wind (that's logical), more sun and less rain. But does that impression match reality? The observations of the Dutch Met Office tell us that there 5% less rain and 1% less sun on a Dutch Frisian island (like Terschelling) than in the inland. This is way too small to be observable in the daily experience. Something seems wrong.

Pictures below: Just like elsewhere in the Netherlands, the weather on the islands may be spoiled by rain. But on warm summer days that does not happen so often as in the mainland.



In order to get a finger behind the island climate, we first consider the weather situations in which there is *no* difference between island and inland. This is the case if we are under the influence of oceanic depressions, which transport cool air – we talk about the summer – with in it the mighty Atlantic rain fronts into Europe. These large-scale weather systems are hardly influenced by the nature of the terrain below them and therefore bring everywhere the same weather: rainy and cloudy alternated by spells, and moderated temperatures. In the Netherlands most days are characterized by this type of weather.

Much rarer are the days where the climate turns to us its other face. These are the days that we are under the influence of a high pressure system that normally belongs in Southern Europe. In that situation the ocean depressions are kept on distance and the temperatures (again, I am talking about the summer) are high – particularly in the inland. But when the sun pushes the temperature difference between soil and upper air above a certain threshold, then clouds are formed which may grow out in the afternoon to thunderstorms, to disappear in the late evening again. From the Dutch islands one regularly sees such thunderstorms floating over the main land.

In such situations, the weather on the islands is different: while the inland, consistent with the weather forecast, suffers under an developing cloud deck, the island enjoys a beautiful and sunny day. For, the (hot) surface of the island is so small that the cloud formation gets no chance to get on steam: at the moment that a clouds tries to develop towards a thunderstorm, they find themselves already situated over the cool seawater and hence fade away.

In the coastal areas of the mainland a similar situation may occur, so that it is there also sunnier during warm days than in the inland. The difference with an island is that there is

only on one side sea, so that the island/coastal climate is less prominently present than on a sea-surrounded island.

The irony of all this is that the coastal/island climate does not manifest itself during drizzly days when everybody sits home, but rather on the (rarer) days when the weather tends to be fine: then it is on the island real fine. This is the very reason that we really know the island climate from our own experience.

On seasons other than the summer the island exhibits also specific climate characteristics. Perhaps the finest example is in fall, when the land is colder than the surrounding sea. Over sea may, in high pressure situation like above, develop thunderstorms. In this case not because of excess warming from below, but because of night-time cooling on the tops of the clouds. In am rather sure that island visitors regularly witness during the late night a spectacular thunderstorm over the North Sea.