

## 18 Kleiner Binnensee

### 18.1 Change of the site by project activities:

The target toads *B. calamita* and *B. viridis* seemed to have disappeared about a few years before the project started. In the beginning it was tried to find maybe the last individuals. This was not successful. The last Dunlin was seen at the site in the 1990<sup>th</sup>.

The aim is to improve the hydrology of the site and improve the conditions for breeding water birds by vegetation management in the remaining salt meadows. In 2010 ditches were blocked successfully and drainage pipes were searched and destroyed in upper salt meadows to retain as much rain water as possible into the breeding season.

In the lower part of the salt meadow the connection to the lagoon were slightly deepened to allow water to fill depressions which before dried up too early.

Further by the mowing of small reed islands and reed stripes along the lagoon the reach along the shore line.

By blocking ditches about 1,2 ha shallow, temporary flooding were re-activated in depressions of former tidal creeks and along the blocked ditches. Especially the edges of these flooding with an approx. length of 4,5 km provides food habitat for water birds. Also three potential breeding depressions for *B. calamita* were created in the meadow area south of the lagoon. One big depression of 7000 m<sup>2</sup> was re-activated in the upper salt meadow by closing a drainage pipe. It is hoped that this water will provide well-up of ground water in the lower meadows and improve by that the foraging conditions for water birds.

In spring 2011 the grazing in front of the dike was increased to the planned size.

Red shanks used in 2010 by ditch blocking improved salt meadows for breeding with 4 pairs in 2011. With better water levels in the very dry spring 2011 the potential for more birds will be there.



Lagoon and salt meadows 2007



Reed mowing with mowing shuffle



Blocking of ditches...

...and the effect: water retention in the open meadow (right side)



After ditch blocking also the breeding pond conditions for *B. calamita* were improved in the meadows south of the lagoon. Salinity measures in 2011 showed that there are suitable reproduction conditions. The site is ready for the re-colonisation from the next population.

In 2011 4 sods (10x10 cm) of *Apium repens* (from Eichholzniederung) were planted in similar conditions as in Eichholzniederung and Fehmarn: 2 at the edges of a new pond and two in wet grassland in a depression. In autumn only the plants at the edge of the new clay pond were still there. At the other place the plant seem to be overgrown by grass.

### 18.2 Remaining challenges and actions:

The Baltcoast meadow management is an example how meadows should be managed in the reserve for birds. It is hoped that the bird community will react positive on the actions. When the birds breeding community reacts positive, it will be tried that similar activities can be implemented also on the public owned land of the village Behrendorf and other private owners. The negotiations will be done during the project. The actions might be -in case of successful negotiations- part of the After-Life-Conservation plan.

The water management of the lagoon is not defined in legal terms. The water from the lagoon is drained by a pipe and sluice through the dike. During periods of strong western winds the Baltic Sea level is low and the draining is increased. When the Baltic sea level is back to normal, the water level in the lagoon is kept low as long as it is not refilled by rain water or water from the a brook. In suitable periods for draining the water level of the lagoon is lowered as much as possible to have some buffer in the system.

With the actual water regime around the lagoon the conditions for toads breeding in depressions next to the sandy habitats along the coastline are not promising. Permission for deepening depression in the public owned area could yet not be gotten from the village community. The creation of one new pond on a plot owned by Stiftung Naturschutz was denied by the nature conservation authority, because N2000 habitat types might be negatively influenced. Maybe new breeding sites for *B. calamita* will not

New water in old stream by ditch blocking achieved in 6/2011



Measuring salinity new created flooding in salt meadows, 6/2011



Newly planted *Apium repens* in 6/2011

be needed if reactivated depressions in meadows south of the lagoon show a further positive development.

### 18.3 Public perception:

The relation between community from the adjacent village Behrendorf and the nature conservation in general was not good in begin of the project. The reason for that was a plan about 20 years ago. At that time nature conservation together with the dike authorities tried a re-diking project for the project site. This caused a strong opposition from the village community.

When the project activities started about the change of the hydrology by closing ditches, the people “seemed to remember” that a strong opposition can inhibit nature conservation. It was feared that blocking of ditches can cause too high water level in road ditches and in the village. So some rounds of negotiations where needed before the permission was donated by the local nature conservation authority.

With a public ground break in August 2010 the ditch blocking project started. The reluctance towards nature conservation activities decreased due to repeated negotiations by the local manager Britta Küper.

