

Annual Report 2011
On the protected landscape area and nature reserve
"Wollmatinger Ried - Untersee - Gnadensee" (Germany)

Period under review:	1. October 2010 to 30 September 2011
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I. GENERAL INFORMATION

1. Natural heritage – conservation status

1.1 Environment

The average temperature during the year under review was 10.4 °C making it 1.3 °C above the long-term mean. Particularly warm conditions were experienced from March to May (3.1 °C up on the average) and August and September (2.3 °C up on the average). Only the months from November (-1.6 °C) and July 2011 (-1.2 °C) were notably colder than the reference value. Total precipitation was 23 mm below the reference value at 826 mm. Particularly heavy precipitation was recorded in December, which at 142 mm was 85 mm higher than the reference value, and July, which was 60 mm over the reference value at 162 mm. The driest month was April, which saw precipitation of only 23 mm instead of the average 68 mm. The weather pattern during the year under review was consequently characterized by a wet and cold December and an extremely dry and warm spring, which was only balanced out by the occurrence of a wet and cold July.

Following water levels well above the reference values in autumn and winter, the end of February this year saw a drop below the reference value. Instead of the customary springtime rise, the water level of Lake Constance remained at its winter level until the beginning of May. It was not until June 17th that the water level in Lake Constance reached the reed bed area with a level of 330 mm measured at the Konstanz harbour water mark. This year's peak level was not reached until July 25th, and measured only 409 cm. The typical level drop in the late summer was in line with the average level (cf. Fig. 1).

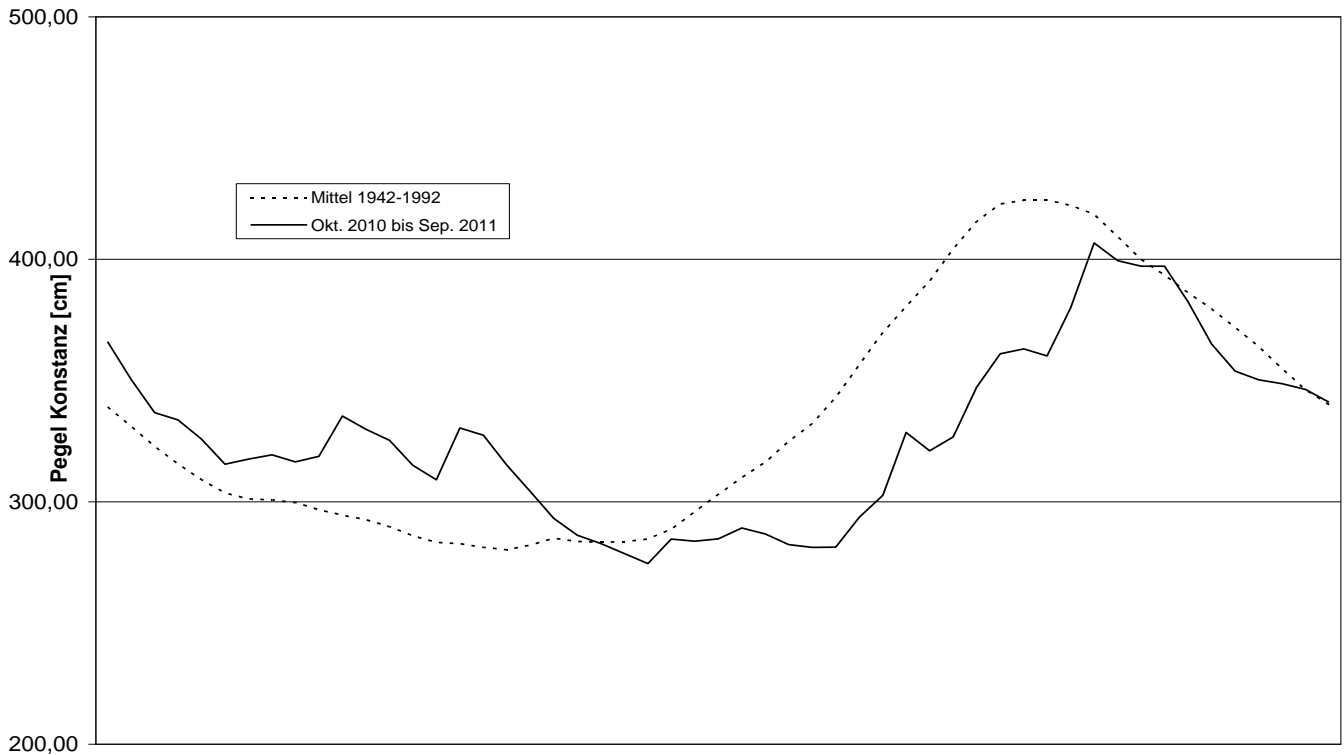


Fig. 1: Lake Constance water level (Konstanz harbour water mark) from October 1 2010 to September 20, 2011 (continuous line) and the mean values from 1942 to 1992 (dotted line)

1.2 Flora and vegetation

This year's flower development was characterized by the dry conditions which persisted from January through to June (cf. point 1.1). In many species, this resulted in drought stress which was frequently reflected in stunted growth and low bloom density per plant, while species in well drained locations were often able to benefit:

With 211 flowering plants (2010=201), the stock of green-winged orchid (*Orchis morio*) continued to grow in size. The **bird's eye primula** (*Primula farinosa*) reached a new peak with a total of 113,324 (2010=60,774) flowering plants. The **bladder gentian** (*Gentiana utriculosa*) achieved its best result since 1997 with a stock of 9,967 (2010=6,116). The **marsh gladioli** (*Gladiolus palustris*) continued its recovery from the hail damage of 2009 with 2,813 (2010=1,475) specimens. With a total count of 816 (1020=589), the stock of **summer ladies tresses** (*Spiranthes aestivalis*) reached the highest level since 1988. The stock of **small meadow rue** (*Thalictrum simplex ssp. galioides*) continued its recovery, returning to the average level with a total of 3,562 (2010=2,138) plants. Following four successive poor years, the **rock cress** *Arabis planisiliqua* returned to above-average values with 582 flowering plants (2010=150).

With just 171 specimens recorded, the **lax-flowered marsh orchid** (*Orchis palustris*) remained well behind the previous peak level of 283. The **marsh dandelion** (*Taraxacum sect. Palustria div. spec.*) only succeeded in reaching average values with 8,373 (2009=11,288) specimens following two very good years. The **Siberian iris** (*Iris sibirica*) returned to its average level in the selected recording areas with 1,739 specimens following a record previous year (2010=2,659). The **marsh gentian** (*Gentiana pneumonanthe*) maintained its previous year's low level with 1,157 (2010=2,154) specimens.

Only 141 specimens of the **globe daisy** (*Globularia punctata*) were counted following two good previous years (2010=341). With 6 specimens counted (2010=1), the **bug orchid** (*Orchis coriophora*) has maintained a marginal population growth. Following the mowing damage inflicted during the previous year, with 53 specimens the stock of **keeled garlic** (*Allium carinatum*) reached only half that of 2009. The **hedge hissop** (*Gratiola officinalis*) was hardly in evidence up until July, and by August only 1,157 shoots had been counted (2010=9,000).

Bibershof beach meadow by Irene Strang

Inspections carried out at the beginning of May 2011 revealed a positive or at least constant development of stocks for all beach meadow species for the first time in years. This applies in particular to the **water forget-me-knot** (*Myosotis rehsteineri*), which only occurred again in 2010 after an absence of many years. The stock of this species had more than doubled within a year and now encompasses just under 160 rosettes. A notable development of **shore weed** (*Littorella uniflora*) stocks was discovered compared to recent years, even though the maximum spread in evidence in 2005 has not been reached by a wide margin. Stocks of the **creeping spearwort** (*Ranunculus reptans*) have at least stabilized. No evidence at all was found in 2011 of the variable-leaf pondweed which was spotted in the previous year. This may be due to the absence of late flooding.

Occurrence of neophytes

While the development of expansive newly arrived plant species gave rise to concern in the previous year, in the year under review this tendency relaxed slightly. Stocks of **Canada golden rod** (*Solidago canadensis*) and **late golden rod** (*S. gigantea*) in particular had reduced significantly in most areas of occurrence. However, in the “Langen Züge“ area a new species **grass leaved golden rod** (*S. graminifolia*) was discovered with a large stock around 30 sq.m. and immediately scythed.

The **red touch-me-not** (*Impatiens glandulifera*), in contrast, demonstrated only a slight reduction, and actually expanded in some cases, predominantly in the edge areas.

The only occurrence of **Jerusalem artichoke** (*Helianthus tuberosus*) at the Recheinau beach barrier had stagnated.

The vigour of the **Japanese knotweed** (*Reynoutria japonica*) which had occurred in the previous year in the conservation area had diminished slightly due to concerted combative measures.

1.3 Fauna

Birds (Aves)

The monthly counts of water fowl were continued in the winter season 2010/2011. The total population was on a par with the previous years: A maximum of 43,000 individuals in February 2011 and 42,000 in January 2011. The daily values counted for several water fowl species returned to national and international significance, with: 6,400 gaswalls (*Anas strepera*) in November, 1,200 pin-tail ducks (*Anas acuta*) in December and 5,700 red-crested pochards (*Netta rufina*) in February. In addition, up to 20 Bewick swans (*Cygnus bewickii*), 167 whooper swans (*Cygnus cygnus*) and 271 Eurasian curlews (*Numenius arquata*) were recorded. In contrast to the previous winters, the high water level permitted visiting water fowl to make better use of the protected zone.

The water fowl counts which have taken place since 2007 also in the summer months were continued on a reduced scale (once a month between June and August). As in previous years, the reserve offered a habitat to >8,000 moulting water fowl individuals using the reserve as a summer resting place. The reserve once again assumed particular significance as a moulting location for >2,000 red-crested pochards (*Netta rufina*) and around 300 gaswalls (*Anas strepera*). In addition, >200 black-necked grebes (*Podiceps nigricollis*) gathered in the Rheinrinne area at the edge of the reserve for their flight feather moult.

The extreme low water level which lasted up until mid June was very detrimental to the water fowl species. In the black-necked grebe (*Podiceps nigricollis*) population, it resulted in a complete failure to breed. The breeding success of other swimming fowl species was also well below the results for previous years. The little grebe (*Podiceps ruficollis*) population counted 13 families with 21 young (despite an extraordinarily high number of 55 breeding territories!), great crested grebes (*Podiceps cristatus*) counted 45 families with 62 young, and red-crested pochards (*Netta rufina*) 9 families with 39 young. In contrast, the stocks of value-determining breeding species in the reed beds remained stable or were slightly up on last year: Little bitterns (*Ixobrychus minutus*) 3 territories (2010=2), great reed warblers (*Acrocephalus arundinaceus*) 28 territories (2010=27), Savi's warblers (*Locustella luscinioides*) 16 territories (2010=8) und bearded tits (*Panurus*

biarmicus) 47 territories (2010=24). The common terns (*Sterna hirundo*) were only able to begin breeding on the rafts in July due to the low water level: there were a total of 13 breeding pairs, but of these late broods only one young is thought to have fully fledged.

Dragonflies (*Odonata*) by Manuel Fiebrich

Counts carried out as part of a diploma thesis research project in the territory during the period under review verified a total of 38 species. Alongside common species such as the **common blue damselfly** (*Enallagma cyathigerum*), the **four-spotted chaser** (*Libellula quadrimaculata*) and **spotted darter** (*Sympetrum depressiusculum*) the first sighting of a **scarce chaser** (*Libellula fulva*) and in the adjacent “Goldern” FFH region the first sighting of a **common hawk** (*Aeshna juncea*) were recorded. It was particularly gratifying that the occurrence of the **Siberian winter damsel** (*Sympetma paedisca*) was confirmed with a greater number of individuals recorded than in 2005 despite the very dry spring. Other verified species worthy of mention include the **red-veined darter** (*Sympetrum fonscolombii*), **vagrant emperor** (*Anax ephippiger*) and **yellow clubtail** (*Gomphus simillimus*).

Butterflies (*Lepidoptera*)

In an incomplete quantitative count, a total of 439 **scarce large blue** (*Maculinea teleius*) moths and 68 **dusky large blue** (*M. nausithous*) moths were recorded. No occurrence of the **alcon large blue** (*Maculinea alcon*) was verified in the year under review.

2. Cultural heritage and socioeconomic context

2.2 Socioeconomic context

Fishing activities in the protected area caused escape reactions of water birds, for instance the red-chested pochard and gadwall ducks.

3. Education and scientific interest

3.1 Visitors – information policy

3.1.1 Information provided

The information trail opened by Government President Julian Würtenberger on June 26, 2010 for the Wollmatinger Ried reserve was intensively used. Regrettably, during the year under review, three of the notice boards were destroyed by vandalism and had to be replaced by the Regierungspräsidium Freiburg.

3.1.2 Frequentation of visitors and behaviour

During the period under review, 201 guided tours were held within the reserve, attended by 3,324 participants. During 20 nature study boat trips, 274 visitors had the opportunity to gain an awareness of the beauty of the area and the need for its preservation. The NABU nature reserve recorded 1,244 visitors to its exhibition.

3.2 Scientific research

3.2.1 Current and completed research

Plant counts were performed by the employees Nature Conservation Centre Wollmatinger Ried (cf. section 1.2). As part of a bachelor thesis, Selina Grohe launched on a systematic evaluation of figures gathered over many years. The development of lakeside vegetation and beach meadows is scientifically studied by the employees of the Lake Constance Shore Working Group (AGBU) bi-annually. The next review is due to take place in the winter of 2011/12.

A survey of Avifauna was carried out by the employees of the NABU Nature Conservation Centre Wollmatinger Ried and the Lake Constance Ornithological Bird Group, which involved regular counts of waterfowl populations and breeding birds, and mapping of breeding territories (cf. section. 1.3).

As part of his diploma thesis, Manuel Fiebrich performed a count of butterflies (Odonata). Ground surveys were continued as part of the compilation of management plans for the NATURA-2000 area no. 8220-341 "Bodanrück and Western Lake Constance". Mapping work was coordinated by the Office for Ecological Landscape Planning, Josef Kiechle.

5. Site management

5.1 Improvements made

5.1.1 Ecological action

In contrast to the previous year, it was once again possible to carry out regular maintenance in full over a total of 153 hectares. In addition, in the area of the bird breeding pond, 4.3 hectares of new maintained areas were created with a view to improving the breeding and resting conditions for ducks, grebes, herons and waders.

Cattle grazing (6 hectares) on the "Lange Züge" common has been continued with a rotational system.

Between May and September, the well-known neophyte occurrences **Canada golden rod**, *Solidago canadensis*, **late golden rod**, *S. gigantea*, **grass-leaved golden rod** (*S. graminifolia*), **Himalayan balsam**, *Impatiens glandulifera*, **Jerusalem artichoke**, *Helianthus tuberosus* and **Japanese knotweed**, *Reynoutria japonica*) were almost completely eradicated.

In order to optimize the adjacent district "Göldern" located outside the reserve area, the planned flower meadow was created using seeds from Wollmatinger Ried.

To increase the genetic variability of the in-situ cultures of the **bug orchid** (*Orchis coriophora*) seed material was harvested once again. The seeds of the **marsh gladioli** (*Gladiolus palustris*) harvested during the previous year were successfully cultivated.

5.1.2 Field equipment

The access bridge to the observation platform at the Ermatingen Basin was severely damaged by a falling silver willow tree. To allow visitor access to be maintained, an emergency repair was carried out of the bridge over the millrace. The observation structure, which is damaged in several places, is due to be fundamentally renovated in the coming autumn. The City of Konstanz has pledged to take on the necessary planning work. The Regierungspräsidium Freiburg has offered the prospect of meeting the costs involved.

5.2 Management

5.2.1 Legal actions against infringements of regulations

Infringements of the regulations are a topic in the current revision of the management plan for the FFH and bird sanctuary. Solutions and actions to be taken will be suggested when the revision will be completed in 2012.

II. INFLUENCE OF THE EUROPEAN DIPLOMA

The European Diploma is an important argument for taking questions of nature protection into account, for instance in exemption decisions.

III. PROGRESS IN COMPLIANCE WITH THE EUROPEAN COUNCIL RECOMMENDATIONS

The European Council has linked extension of the European Diploma to November 28, 2019 to six recommendations. The following progress has been made towards implementation of these recommendations during the year under review:

Recommendations:

Implementation of the individual recommendations:

1. Self-dynamic and natural development of the shallow water zone:
The shallow water zone enjoyed an undisturbed, self-dynamic and natural development in the year under report.
2. Experimental suspension of fishing in very sensitive core areas:
The possibility to suspend fishing in particularly sensitive core areas of the protected area is being examined.
3. Documentation of moulting activity and elimination of potential disturbances:
Through the use of the floating protection and observation station “Netta”, disturbances as a result of leisure activities, in particular boating sports, are being effectively reduced. However, there is still no recourse against disturbance caused by orderly fishing activity. The significance of the protected area as a summer resting and moulting place for water fowl is being documented by extended water fowl monitoring (cf. chap. 1.3).
4. Harmonization of cooperation between Switzerland and Germany:
In the course of the international Lake of Constance Conference, there are talks currently in progress between Germany and Switzerland for harmonization of cross-border cooperation to improve protection of the shallow water zone of the Ermatingen Basin.
5. The construction of the B33 and the Westtangente arterial road is being continued according to the planning permission. At the present time, the completion of the 1st construction stage is under way. Construction-related impacts on the nature reserve are being minimized by the construction of suitable barriers. Possible impacts on the protected area are solved on the lower administration level. Construction of the green bridge has started. To the north of the green bridge, a new floodproof wild meadow is being sown with seed material from Wollmatinger Ried. To the south of the green bridge, a former wild meadow 10 hectares in size is being maintained once again as feeder element.
6. Clarification of the future of Wollmatinger Ried Nature Conservation Centre:
The State of Baden-Württemberg has made available funding of 1 million € for a new nature conservation centre. As a legal condition to construction of the new building, the development plan “Göldern” is currently being made available for public scrutiny.