



October 2004

***Annual Report 2004
on the protected landscape area and nature reserve
"Wollmatinger Ried - Untersee - Gnadensee"
(Germany)***

Period under review:	October 1 2003 to September 30 2004
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I. GENERAL INFORMATION

1. Natural heritage – conservation status

1.1 Environment

The average temperature during the year under review was 9.7 °C, bringing it only to 0.5 °C above the long-term mean. Only October 2003 was noticeably colder than usual by 2.6 °C at 7.1 °C. All other months lay within or exceeded the reference values. The months of April and August were too warm by 1.6 and 1.9 °C respectively.

The year under review was less dry than the previous year, although the annual rainfall of 788 mm was still well below the long-term mean of 849 mm. Despite this, the months of October 2003 and January 2004 produced unusually high rainfall with 115.1 and 117.4 mm respectively. Particularly dry months were April, with 20.6 mm and August with 48.8 mm, both well below the long-term mean for rainfall in these months by 47.5 and 48.8 mm respectively.

A storm which took place on July 08, 2004 must be considered the most influential weather phenomenon for the nature reserve: Hurricane like conditions uprooted trees and left treetops in tatters. In partial areas, up to 90% of the reeds were bent over by heavy hail showers. The hailstones, some of which were as large as five centimetres, destroyed all the blossoms on around one third of the meadows. It is not possible to estimate how many insects and young birds fell victim to the storm.

The level of water in Lake Constance remained almost constant throughout the whole of the period under review at around 10 – 30 cm below the long-term mean. Only the heavy rainfall in October and the warm atmospheric conditions combined with the high rainfall in January caused the water level to rise up to the long-term mean value or slightly above it. The subsequent dry period caused the water level to fall again quickly. This year's water level high was reached initially between June 13 – 16 with 399 cm, to be slightly exceeded from July 11 – 14 at 402 cm.

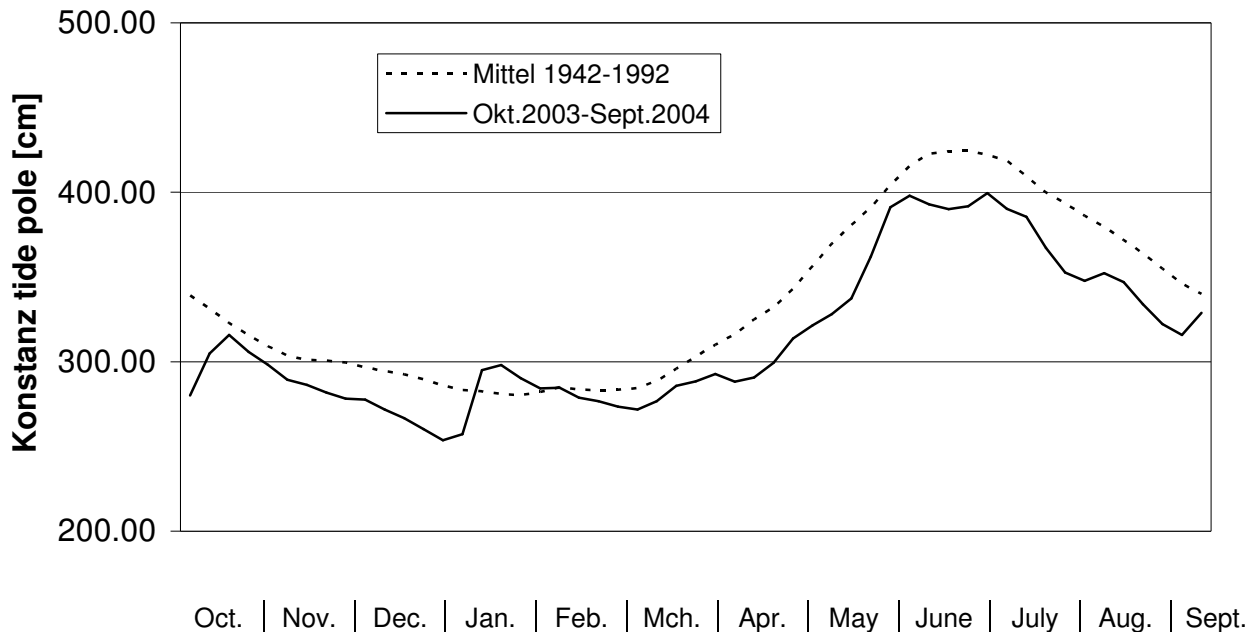


Fig. 1: Lake Constance water level (Konstanz harbour water mark) from October 2003 to September 2004 (continuous line) and mean values from 1943 to 1992 (dotted line)

1.2. Flora and vegetation

The population development of rare plant species on the red list

Apart from isolated negative aspects, the collection of data relating to plant species on the red list during the year under review produced an overall gratifying picture:

Most typical types of moor grass meadows (*Molinion*) have undergone a positive development: Since the floods of 1999, the stock of **marsh gladioli** (*Gladiolus palustris*) has continued to grow to a total of 1,673 and of the **marsh gentian** (*Gentiana pneumoanthe*), which was only counted in selected trial areas, to 3,334 inflorescences. The *Thalictrum simplex ssp.galioides* was once again present in above-average numbers with 3,941 (2003=3,454). The **mouse garlic** (*Allium angulosum*) achieved the greatest ever registered density of blooms with 28,244 flowering plants.

Of the important alkaline fen species (Caricion davallianae) the **bird's eye primula** (*Primula farinosa*) with 47,309 (2003=58,021) and the **bladder gentian** (*Gentiana utriculosa*) with 3,732 (2003=5,129) demonstrated high stock densities despite a slight fall in numbers. The **swamp grass of parnassus** (*Parnassia palustris*) registered another record year following on from 2003 with 71,793 (2003=45,872). The marked reduction in the stocks of **summer ladies tresses** (*Spiranthes aestivalis*) from 364 in the previous year to only 41 can be explained by the destruction of large quantities of blooms by the heavy hail storm (cf. 1.1). The question of whether the disappearance of the **lax-flowered marsh orchid** (*Orchis palustris*) is due to the dry conditions or to coincidence remains unanswered in view of the extremely small population (1997-2003=0-7).

With a total of 81 plants (since 2000= 3-6), for the first time the **burnt-tip orchid** (*Orchis ustulata*) was restored to the stock levels existing prior to the flood of 1999. A record high occurrence of the **globe daisy** (*Globularia punctata*) was recorded with 85 plants. In contrast, stocks of the **green-winged orchid** (*Orchis morio*) with 6 (since 2000=1-4) plants and the **bug orchid** (*Orchis coriophora*) with only 2 (since 1997=0-8) both remain at a low level.

After cutting back the proliferating growth of meadow thicket, the previous population of **hedge hyssop** (*Gratiola officinalis*) was able to recover, with a total population estimated at 6,100 shoots (2003=3,800).

Beach meadow

by Irene Strang

The Bibershof beach meadow continues to thrive. A good population of **shore weed** (*Littorella uniflora*) and **creeping spearwort** (*Ranunculus reptans*) remains. In mid-March 2004, the beach meadow areas and the neighbouring vegetation featuring sedges and ribbon grass were mown and cleared. At the seaward boundary of the meadow, hundreds of willows germinated in the spring of 2004, which survived the 2004 flood in a strip measuring around 3 metres in width (partially on the beach wall). Plans exist to remove these during maintenance work in 2005, as otherwise there is a danger that they could create a permanent population and repress the small growing beach meadow flora.

Occurrence of neophytes

Despite intensive combating measures undertaken during the previous year and in the year under review, during the year under review stocks of **Canada golden rod** (*Solidago canadensis*) and **late golden rod** (*Solidago gigantea*) continued to make expansive inroads. Many of the known occurrences increased, although hardly any new occurrences were discovered.

Thanks to intensive control measures, **red touch-me-not** (*Impatiens glandulifera*) has increased only negligibly: In the traditional growth area along the Mühlegraben ditch, the population increased slightly. In the ditch along the row of poplars between the Dreifuß meadow and Frohnried, attempts to prevent its expansion towards the litter meadow were successful. The number of individual plants in the Frohnried area and along the northerly track has increased. All individual plants found were pulled up immediately, the larger patches were mown from July to August.

Occurrences of the **Jerusalem artichoke** (*Helianthus tuberosus*) to the west of the Reichenauer beach wall dropped slightly.

1.3 Fauna

Birds

The results of the international water fowl counts showed both in terms of total population and species variety, that the nature reserve with the adjacent shallow water zone once again assumed a leading position as a European inland migration stopover and winter shelter.

With overall highly favourable atmospheric conditions, water level and food supplies, the following species in particular reached significant levels during the 2003/2004 winter season: 3,800 **gadwalls** (*Anas strepera*) in October, 1,100 **northern shovellers** (*Anas clypeata*) in November, 7,200 **green-winged teals** (*Anas crecca*) in November, 4,500 **red-crested pochards** (*Netta rufina*) in January and 15,000 **common pochards** (*Aythya ferina*) in October.

Once again this provided clear evidence that for the shallow water areas lying outside the nature reserve which are functionally inseparable from the shallow water areas integrated in the reserve, provide an indispensable seasonal shelter. The overall maximum population of 59,000 individuals in October 2003 and a winter population fluctuating around the 40,000 mark (December to February) testify not only to the outstanding quality of the Eastern section of the lower lake, but also to the urgent necessity of implementing a (cross-border) protection concept.

The breeding success of the water birds was impaired once again by the low water levels, possibly also by the hail storm of July 08, 2004. For the **black necked grebes** (*Podiceps nigricollis*) with 38 families totalling 49 young and the **red crested pochard** (*Netta rufina*) with 28 families totalling 162 young, the breeding result was substantially above the very poor results of the previous years. Three crested duck families with 17 young were discovered. Only the **great crested grebe** (*Podiceps cristatus*) still lay below the 2003 results with 64 families comprising 92 young.

The results of breeding bird mapping in 2004 also lay overall above the very poor values for the previous year. The breeding population of the **great reed warbler** (*Acrocephalus arundinaceus*), which can largely only be recorded by boat, was estimated at 36 territories. The **Savi's warbler** (*Locustella luscinioides*) also reached an above-average density for the area with 25 territories. Of the **lapwing** (*Vanellus vanellus*) one certain and one suspected territory were discovered. Breeding activity was even assumed for the **common snipe** (*Gallinago gallinago*) due to several sightings between April and June. The breeding colony of the **common tern** (*Sterna hirundo*) was well

populated with at least 29 breeding pairs. However, in contrast to previous year, no breeding activity was discovered for the **little bittern** (*Ixobrychus minutus*).

2. Cultural heritage and socioeconomic context

2.2 Socioeconomic context

The presence of intensive anthropogenous utilization (residential and commercial buildings as well as traffic infrastructure) immediately in the vicinity of the protected area poses a high and ever-present potential danger. In particular the buffer and green linking areas adjoining the land side of the reserve are being progressively transformed into industrially used sites, residential settlements and taken up by the transport infrastructure, so isolating the reserve from its hinterland. Isolated claims even to designated reserve territory have so far been successfully averted, largely thanks to the prestigious international accolades such as the European Diploma. However, given the increasing severity of the economic outline conditions in Germany, pressure from this direction is becoming ever more clearly evident.

3. Education and scientific interest

3.1 Visitors – Information policy

3.1.2 Frequentation of visitors and behaviour

During the period under review 142 guided took place in the reservation, attended by a total of 1,382 adults and 483 children. With a total of 5 instructive boat trips run between Radolfzell and Konstanz, a large number of visitors were informed about the Wollmatinger Ried and the Untersee Nature Reserve. 30 solar boat trips with nature guide supervision along the water-bound border of the protected area allowed a total of 29 children and 305 adults to appreciate the beauty of the area and the urgent need for its protection. The NABU nature visitor's centre was visited by 1,217 adults and 166 children.

On the land side, unauthorized trespassers were only discovered very occasionally in the prohibited area. After a brief explanation by the wardens, they generally left the area without delay. Due to the low water level, problems encountered with water sports enthusiasts illegally entering the protected areas of water were limited.

3.1.2 Special visits

On October 02, 2003 the reserve received a visit from representatives of the Swiss “Confederate Finance Control Commission“, which wished to obtain information relating to protection regulations on the German side and to discuss questions of a joint cross-border Ramsar territory in the Ermatingen Basin with Bodo Kraus of the Baden-Württemberg Ministry of Nutrition and Rural Affairs.

A group of business and tourism experts from China, Mongolia and the USA visited the NABU Conservation Centre Wollmatinger Ried from May 14 – 16, 2004 within the framework of a training course in order to gain information about nature reserve management.

A total of 24 tourism experts from Indonesia visited Wollmatinger Ried on June 24, 2004 to research possibilities of visitor guidance in nature reserves.

3.2 Scientific research

3.2.1 Current and completed research

Plant counts and vegetation surveys of the areas under continuous observation were performed by employees of the NABU Conservation Centre Wollmatinger Ried (cf. 1.2).

A survey of avifauna was performed by employees of the NABU Conservation Centre Wollmatinger Ried and the Lake Constance Ornithological Work Group, which involved regular counts of waterfowl populations and mapping of breeding birds (cf. 1.3).

Michael Dienst, Eberhard Klein and Dr. Wolfgang Ostendorp documented the mud flat areas projecting on the water side of the reed beds which have dried out as a result of the stages of succession caused by the dry conditions during the previous year.

4. Site description, legal status

No change during the period under review

5. Site management

5.1 Improvements made

5.1.1 Ecological action

During the year under review, complete maintenance of 120 hectares of litter and flood meadow by order of the Administrative District Office of Konstanz was successfully undertaken by farmers using large-scale equipment. The NABU took charge of maintaining, largely manually, the sensitive areas of the sea wall and zones containing highly endangered species totalling around 28 hectares of litter and low-fertility meadow and sedge areas. In addition, this winter once again a mowing caterpillar was used on a total of 2 hectares of land.

The high-fertility common "Zügwiesen" (18.5 hectares) was mown at the beginning of June and the end of August 2004. In the green bridge areas and on other meadows rich in nutrients, and litter meadows showing symptoms of eutrophication, NABU thinned the vegetation by mowing over an area of 10 hectares.

Cattle grazing (6 hectares) on the "Lange Züge" common was continued with 9 Highland breeding heifers. A monitoring program traced changes in vegetation and fauna.

From the beginning of June to mid-September, steps were taken to combat all neophyte occurrences (**Canadian golden rod**, *Solidago canadensis*, **late golden rod**, *S. gigantea*, **policeman's helmet**, *Impatiens glandulifera* and **Jerusalem artichoke** *Helianthus tuberosus*) between one and three times by manual pulling up or limited-area mowing.

5.1.2. Species protection

The two closely positioned growth areas of the **hedge hyssop** (*Gratiola officinalis*) were cleared during the late winter of the invasive willows, which resulted in a slight increase in the population.

To maintain / improve the function of the breeding waterfowl pond on the edge of the Ermatingen basin, a further portion of the occurring thicket was felled.

5.1.4 Field equipment

As the initial stage towards renovation of the dilapidated sections of the observation facilities in the reserve, the partially collapsed access footbridge to the observation platform at the Ermatingen Basin was restored by order of the District Agency for Nature Conservation and Landscape Management. During the coming winter, the observation platform at the Hegne bathing beach and camp site is due for renewal. As a final stage of the renovation program, the observation platform at the Ermatingen Basin still requires repair.

5.2 Site management

5.2.1 Administrative department: changes made

As part of the administrative reform of the State of Baden-Württemberg, the District Agency for Nature Conservation and Landscape Management will be integrated under the Government Administrative Headquarters, so losing its special status as an independent specialist authority.

5.2.4 Infringement of regulations and damage: Legal action

As in 2003 once again during the year under review repeated disturbances occurred from air traffic. On May 19, 2004, for instance, a helicopter slowly circled over the shore coming from the Ermatingen Basin for a period of 45 minutes almost as far as the land side of the nature reserve boundary, and back again. This resulted in panic flight response among many breeding birds (including the **black kite** *Milvus migrans* and **common tern** *Sterna hirundo*). On July 19, 2004 another helicopter flew low over the area, initiating a mass flight primarily among the resting birds. Both cases were reported. The first helicopter held a general low flying permit, the other was prosecuted and received an administrative fine.

In response to an illegal pier built within the protected area on the southern shore of the Reichenau Dam, after being reported by the Lower Lake Water Authorities, a court order was obtained requiring its demolition by October 31, 2004 at the latest.

II. INFLUENCE OF THE AWARD OF THE EUROPEAN DIPLOMA OF PROTECTED AREAS

Primarily in searching for possibilities to reduce disturbance by air traffic and in utilization conflicts in the area surrounding the nature reserve, the European Diploma provides a valuable arguing point in defending the interests of nature conservation.

III. PROGRESS IN COMPLIANCE WITH EUROPEAN COUNCIL RECOMMENDATIONS

No further steps have been undertaken to implement the proposed study zone in the flow area of the "Schläuche".

Funding for the floristic-vegetation-related surveys performed by NABU has been made available until further notice by the State of Baden-Württemberg. The necessary resources are still not available to carry out further-reaching studies in the water exchange zone or for a comprehensive monitoring program. Even for short-term registration of success stages initiated by NABU in the mud flat areas projecting on the water side of the reed beds which have dried out, to date any binding promise of funding exists.

The suggestion by NABU that the most important parts of the buffer zones and interfaces between the protected area and the hinterland be classified as NATURA 2000 areas was only adopted in small part in the official FFH suggestion lists of the State of Baden-Württemberg. Current plans to build a "westerly tangent" road still involve cutting into the periphery of even these narrow, compartmented link bridges already classed as NATURA 2000 areas.

To reduce disturbance by low-flying aircraft over the protected area, NABU has applied for the nature reserve to be included in the ICAO aviation map. This was initially rejected by the responsible German Air Traffic Control Authorities. The extent to which inclusion of the Wollmatinger Ried in the official aviation map is still possible depends decisively upon the commitment of the Freiburg Government Administrative Headquarters, which has appealed again to German Air Traffic Control Authorities.

No conclusive solution has yet been found to the unauthorized car park in the northwest of the protected area. The local council has submitted a car park planning application, which involves filling in a strip of appr. 3 metres of ground in the protected area nature reserve but in return leaving the rest of the meadow unused for parking. Instead of the municipal plan, NABU proposed an alternative scheme in which only the asphalted entrance driveway would have to be extended, which would provide sufficient parking spaces without any further filling in. This proposal is currently being reviewed by the council. As in the previous year, utilization of the car park on the wet meadow is restricted to certain peak periods, and then only to the northern half of the meadow.

District Agency for Nature Conservation and Landscape Management is planning to set up an informative signposting concept during the coming year, provided the relevant budgetary and administrative conditions are in place.

To date, no action has been taken to extend the nature reserve as far as the national border although this necessity became clearly evident during the low water year 2003. The areas in question are, however, part of the FHH territory 8220301 and the bird sanctuary 8220401 registered by the State of Baden-Württemberg.

The extent to which this provides adequate protection depends up on the maintenance and development plan yet to be drawn up.

Fortunately, at least the entire German section of the Ermatingen Base has been excluded from the legalized hunting of cormorants. On the Swiss side, the critical report by the Swiss Finance Supervisory Authorities on the implementation of the Ramsar Convention has so far produced no concrete improvements on site.