



Butterflies in the Benelux

Frits Bink & Rosita Moenen

Based on *Dagvlinders in de Benelux 2013*

Revised and extended
Edited by Sylvain Cuvelier & Peter Russell

Agenda



14u00

Lancering website *Butterflies in the Benelux*
Agenda & Flieflotter 2016

Sylvain Cuvelier

15u00

Pauze

15u30

Belevenissen met de Grote vuurvliinder, 1959-2006
aansluitend Q&A met Frits Bink

Frits Bink

Geëxcuseerd



Jori Degrande

Kurt Jonckheere

Stef Spruytte

Omer Van de Kerckhove

Jacques Vervaeke



Butterflies in the Benelux

Frits Bink & Rosita Moenen

Website



What's new?

Basis *Dagvlinders in de Benelux* (2013) door Frits Bink

Uitgebreid met

1. Observatie gegevens doorheen Europa (oud-recent)
2. Analyses van de reproductie
3. Kweekverslagen

Bredere Europese toegankelijkheid Engelstalig

Vlaamse Vereniging voor Entomologie

[http //www.phegea.org](http://www.phegea.org)



Vlaamse Vereniging voor
Entomologie
Flemish Entomological Society

Werkgroep Dagvlinders

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Welkom bij de VVE Werkgroep Dagvlinders
VVE WG DV

Op 6 februari lanceren we de website: [Butterflies in the Benelux](#)
Een uitgebreide en herziene Engelstalige versie van het boek:
Dagvlinders in de Benelux (2013) van Frits Bink.
Zie: [programma](#)

Welcome to the VVE Workgroup Butterflies
VVE WG DV

On 6th of February we launch the website: [Butterflies in the Benelux](#)
An extended and revised English version of the book:
Dagvlinders in de Benelux (2013) from Frits Bink.
See: [program](#)



Butterflies in the Benelux is based largely on *Dagvlinders in de Benelux* and extended with unpublished old and new data about sites visited for collecting and observation of butterflies in nature throughout Europe. Also data on reproduction analyses and reports on rearing experiments are recorded here in detail.



The well-known distribution maps published in most of the books on butterflies are summarised in figures of heat sums in degree-days and climate window in weeks. In this way the northern, southern, western and eastern limits of the distribution can be interpreted in a glance. The habitat characteristics for each species are presented in a table arranged in macro, meso and micro scale, thus a habitat description in terms of the landscape, biotope or ecotope and essential details of the site. The challenge is to present the information in such a way as to clarify what is known about the ecology of a species and where the current gaps are in our knowledge.

The challenge is to understand the relationship between the occurrence of a species and the features of its environment. This is related not only to the characteristics of its immediate environment, but also those of the landscape as a whole. From its ecological profile it can be seen whether or not a species is thriving in a changing landscape.

This ecological profile can be gathered from four biological characteristics arranged in four sections: behaviour over time, behaviour in space, defence against threats and search for food. This arrangement presents the traits in such a way as to make clear in which aspects a species can be considered as successful and which aspects make it vulnerable.

The aim of *Butterflies in the Benelux* is to gain a better understanding of how the occurrence of the 120 species are linked with the characteristics of the landscape. It is not meant for identification of the species. For identification there are many guides available such as: *Dagvlinders in de Benelux* (Wynhoff *et al.* 1990), *Veldgids Dagvlinders* (Wynhoff *et al.* 1990), *De nieuwe Vlindergids* (Tolman & Lewington 1999), *Dagvlinders van Europa* (Lafranchis 2009) and the *Nieuwe Veldgids Dagvlinders* (Wynhoff *et al.* 2009).

Data about distribution of butterflies in the Benelux can be found in several books. In the case of Luxembourg 'Atlas provisoire des insectes du Grand-Duché de Luxembourg' (Meyer & Pelles 1981), of Wallonia 'Papillons de jour de Wallonie (1985-2007)' (Fichefet *et al.* 2008), of Flanders 'Dagvlinders in Vlaanderen' (Maes & van Dijk 1990), *Dagvlinders in West-Vlaanderen* (Cuvelier *et al.* 2007), *Dagvlinders in Vlaanderen* (Maes, Vanreusel & Van Dyck 2013) and in that of the Netherlands 'De Dagvlinders van Nederland' (Bos *et al.* 2006, reprint 2014).

The results of scientific investigations into biology and ecology of butterflies are reviewed in the 'Ecologische atlas van de dagvlinders in Noord-West Europa' (Bink 1992) and the 'Ecology of Butterflies in Europe' (Settele *et al.* 2009). The intention is to create a compact compilation of data that may be useful in ecological research and management of nature reserves. *Butterflies in the Benelux* is meant as a step in that direction.



Synopsis

Content

Grateful thanks to all persons who contributed to the improvement of our knowledge on the biology and ecology of butterflies. This included dealing with experiences, providing rearing material, guiding to special localities and not at least, growing friendships. The period of research covered a period of twenty years, a period during which the interest in butterflies evolved from just admiring these creatures into promoting them as a subject for nature conservation. In the beginning of conservation practise the environmental requirements of plants and birds were the leading subjects in determining policy and reserve management. The butterflies with their typical requirements of hostplants and space were not integrated. Collaboration with colleagues in conservation research changed this and allowed butterflies to take a more central role as indicators of processes over time and quality of landscape. This resulted in the concept of the four functions, an idea of the late Chris van Leeuwen (Research Institute for Nature Conservation).

The visit to famous butterfly localities in adjacent countries has been made possible by the following persons:

England: Herold Short † (*Esher, Hindhead*), Eric Duffey † (*Monks Wood Experimental Station*).

Sweden: Ole Hammarstedt (*Södra Sandby*), Christer Wiklund (*University of Stockholm*), Niels Anderson (*Nature Centre and Research Station on Öland*).

Germany: Sepp Weidemann † (*Untersiemau*), Wilfried Hasselbach (*Alzey*), Ernst Urbahn † (*Zehdenick*).

France: Ferdinand Borde (*Annecy*).

Special appreciation for Jeroen Voogd for his help in computer q

The following people are thanked for the provision of rearing material:

Jan Burgers (*M. athalia*, *L. megera*).

Peter Cribb (*E. aurinia*).

Nico Elfferich (*M. aurelia*).

Wim Geraedts (*T. action*, *A. agestis*, *T. betulae*, *A. paphia*, *S. sertorius*).

G. Kleinecke (*S. w-album*).

Pim Kuyken (*A. agestis*).

Jan van der Made (*L. tityrus*).

Jan Meerman (*D. plexippus*).

Ingo Nikusch (*P. apollo*, *T. betulae*).

Jan van Oordt (*B. aquilonaris*, *P. optilete*).

Jörg Rüetschi (*C. palaeno*).

Harold Short (*L. dispar*, *A. ilia*, *A. iris*, *L. populi*, *S. pruni*, *F. quercus*).

Piet Sogeler (*B. eunomia*, *L. helle*).

Jos Stevens (*A. daphne*).

Jeroen Voogd (*M. phoebe*).

Sepp Weidemann (*P. apollo*, *A. ilia*, *L. populi*, *S. spini*, *S. w-album*).

Christer Wiklund (*C. palaeno*).

Rob Zwart (*P. brassicae*).

Synopsis

Content

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2. Names of the butterflies

history – changes – chosen principle

3. Species, subspecies, form

difference and likeness – practical manageability

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caterpillar and butterfly – growth and reproduction

5. Behaviour of the butterfly

landmarks – congener – courtship

6. Development, capacity, limitation

differences – growth and warmth – limitation and thresholds

7. Continuous changing environment

adaptations – surviving unpredictability – hereditary changes

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seven traits involved in adjusting the life cycle

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16. Family traits

skippers – swallowtails – whites and yellows – metalmarks – blues, coppers, hairstreaks – brush-footed butterflies

MONOGRAPHS

References to vernacular names:
English: Tolman T & Lewington R (1997). *Butterflies of Britain & Europe*. Collins field guide.
Dutch: Bink F (2013). *Dagvlinders in de Benelux*. Home publication, Bennekom.
French: Lafranchis T, Jutzeler D, Guilloison J-Y, Kan P & B (2015). *La Vie des Papillons*. Diatheo.

Hesperiidae

- 1. *Thymelicus lineola* (Ochsenheimer, 1808)
- 2. *Thymelicus sylvestris* (Poda, 1761)
- 3. *Thymelicus acteon* (Rottemburg, 1775)
- 4. *Hesperia comma* (Linnaeus, 1758)
- 5. *Ochlodes sylvanus* (Esper, 1777)
- 6. *Heteropterus morpheus* (Pallas, 1771)
- 7. *Carterocephalus palaemon* (Pallas, 1771)
- 8. *Erynnis tages* (Linnaeus 1758)
- 9. *Carcharodus alceae* (Esper, 1780)
- 10. *Spialia sertorius* Hoffmannsegg, 1804)
- 11. *Pyrgus alveus* (Hübner, 1803)
- 12. *Pyrgus malvae* (Linnaeus, 1758)
- 13. *Pyrgus serratulae* (Rambur, 1839)
- 14. *Pyrgus armoricanus* (Oberthür, 1910)

Dikkopjes

- Zwartsrietdikkopje
- Geelsrietdikkopje
- Dwergdikkopje
- Kommadikkopje
- Groot dikkopje
- Spiegeldikkopje
- Bont dikkopje
- Bruin dikkopje
- Kaasjeskruidikkopje
- Pimpneldikkopje
- Grote puzzeldikkopje
- Aardbeidikkopje
- Groen dikkopje
- Oogvlekdikkopje

Skippers

- Essex skipper
- Small skipper
- Lulworth skipper
- Silver-spotted skipper
- Large skipper
- Large chequered skipper
- Chequered skipper
- Dingy skipper
- Mallow skipper
- Red Underwing skipper
- Large grizzled skipper
- Grizzled skipper
- Olive skipper
- Oberthür's grizzled skipper

Hespéries

- l'Hespérie du dactyle
- l'Hespérie de la houque
- l'Hespérie du chiendent
- le Comma
- la Sylvaine
- le Miroir
- l'Hespérie échiquier
- le Point-de-Hongrie
- l'Hespérie de l'alcée
- l'Hespérie des sanguisorbes
- Le Plain-chant
- l'Hespérie de la mauve
- l'Hesperie de l'alchémille
- l'Hespérie des potentilles

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- Appendix 2. Common grasses (annex chapter 11)
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- 2. Symbols

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1. Benelux

3. Species, subspecies and form

2. Names of the butterflies

People named plants and animals either because they are useful or dangerous or they are just interesting or beautiful. In this way a single species got a vernacular name in every language or even a different one in a local dialect. A species could be named in many ways. Already in the 18th century the need for an international method of naming became urgent but to this very day the nomenclature system is subject to alteration's.

The Swedish professor, Carl von Linné (1707-1778), better known as Linnaeus, had developed already, two and half centuries ago, a system to name plants and animals in a scientific way. The 10th edition of his *Systema Natura* from 1758 formed the basis for modern nomenclature.

The system of Linnaeus is binary; a name is composed of a genus name followed by its epitheton. The former is written with a capital initial letter, the latter always entirely in lower case, even when the epitheton is the name of a person. The epitheta are declined according to the Latin language rules. It is determined by the gender of the genus name: masculine, feminine or neuter. In the case that the genus name is changed, the epitheton will follow, a very annoying matter for someone who requires to use species names. Linnaeus had also developed a hierarchy in nomenclature: related genera are united into families and families into orders. The ending of a name indicates the position in the hierarchical system. Names of a family end on 'idae', those of a subfamily on 'inae' and those of a tribe on 'ini'. A third name may be added to the binary name indicating a subspecies.

These artificial names, which consist of a mixture of Latin, Greek and newly invented words, are not useful for people who are not familiar with this practice. Such people prefer to use names in the own language. These names are sometimes very characteristic but they can also be very silly. Naming species by appealing vernacular names is a challenge, but in practice it is not easy.

Traditional English names often had a historical basis, which is meaningless outside England, for example the Camberwell beauty (*Nymphalis antiopa*). Nobody outside England knows that Camberwell is a former suburb of London. The collection of this butterfly was a great sensation in 1748 among the Aurelians. It was named after the locality where it was captured. The vernacular name in other countries is 'mourning cloak', named after the dark appearance of the butterfly.

Changes in scientific names

Scientific names may change by advancing insight in the historical background as a result of new biological facts. However, a change to names leads to confusion. To make it clear what name is connected to what species, the name of the author who described it the first time can be added. The name of the describer is placed between brackets in case that alterations were made to the name afterwards. Also the year of description can be added to avoid confusion. This causes more fuss, but in the case of butterflies it may be interesting. It shows that the majority of the species was already described in the 18th century, the period that nomenclature was developed after the rules of Linnaeus. At that time communication and travelling was not easy and so it is to understand that many mistakes were made. To this very day there are changes in scientific names as a fact of improvements.

An example of this is the purple hairstreak that was named by Linnaeus in 1758 as *Papilio quercus* and later by other entomologists placed in a succession of genera: *Thecla*, *Zephyrus*, *Quercusia* and *Neozephyrus*. Finally the present name *Favonius quercus* is now widely accepted.



The genus of the Purple hairstreak (*Favonius quercus*) was for a long-time a subject of discussion.

Photograph: Frits Bink ©.

These changes in nomenclature were brought about by advances in analytical methods. In old times, it was only possible to describe a species by morphological features visible to the naked eye. Later on the microscope opened the way for finer details such as genital structures and chromosomes to be examined. The next step was the development of chemical analysis of the body tissue and currently it is the analysis of DNA, which is adding to our knowledge of a species. At this level of analysis it is possible to distinguish species at molecular level. The results are recorded as barcodes which can be elaborated in a computer.

However, the basis of systematics is a practical purpose. One should be reticent to accept new changes to genera names as long as the existing system works well. At present the blues living in close association with ants and contained within the genus *Maculinea*, is the subject of a proposed change to *Phengaris*, of which type species is *Lycaena atroguttata* (Oberthür, 1876) from the Naga Hills, India, at an altitude of 1800-2400m. I have not adopted this nomenclatural change because the results of the DNA research and application of the systematic rules are still unsatisfactory (Bink, 2010a). A decision by the International Commission of Zoological Nomenclature is awaited.

Vernacular names

Within the area of the Benelux three languages are spoken: Dutch, German and French. The cited vernacular names in the monographs are derived from the atlases in Dutch by Bos *et al.* (2006), in German by Meyer & Pelles (1981) and in French by Fichet *et al.* (2008). In some cases other books in German were consulted: Ebert & Rennwald (1999), Thust *et al.* (2006), Weidemann (1995) and in French, Lafranchis (2000). The Dutch names correspond with Bink (1992), except for the Melitaeini which are here named 'melitae'. In English books the species of the subfamily Heliconiinae are called fritillaries, included the species of the tribe Melitaeini which are ecologically different. The species of this tribe in America are called 'checkerspots and crescents' (Scott 1986) and in Europe: 'Scheckenfalter' in German and 'melitée' or 'damier' in French, names that express the difference between these two groups of taxa.

1. Benelux

Back to general chapters

3. Species, subspecies and form

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* For an easy understanding of Table 1 and the habitat characteristics, first consult: [symbols](#)



Hesperiidae - Hesperinae



1. *Thymelicus lineola* (Ochsenheimer, 1806) / Essex skipper
2. *Thymelicus sylvestris* (Poda 1761) / Small skipper
3. *Thymelicus acteon* (Rottemburg, 1775) / Lulworth skipper
4. *Hesperia comma* (Linnaeus, 1758) / Silver-spotted skipper
5. *Ochlodes sylvanus* (Esper, 1777) / Large skipper
6. *Heteropterus morpheus* (Pallas, 1771) / Large chequered skipper
7. *Carterocephalus palaemon* (Pallas, 1771) / Chequered skipper

Hesperiidae - Pyrginae


8. *Erynnis tages* (Linnaeus, 1758) / Dingy skipper
9. *Carcharodus alceae* (Esper, 1780) / Mallow skipper
10. *Spialia sertorius* (Hoffmannsegg, 1804) / Red underwing skipper
11. *Pyrgus alveus* (Hübner, 1803) / Large grizzled skipper
12. *Pyrgus malvae* (Linnaeus, 1758) / Grizzled skipper
13. *Pyrgus serratulae* (Rambur, 1839) / Olive skipper
14. *Pyrgus armoricanus* (Oberthür, 1910) / Oberthür's grizzled skipper

Symbols

Results of dissections





-  In the row of eggs in the ovariole:
A shrunken yellow egg marking the end of egg production in the ovariole. A sharp change in the normal row of developping eggs into the very small undevelopped eggs, clearly a "final egg".
-  In the column of ages:
The age of the butterfly is unknown, it is captured during egg laying (ovipositing) in the field.

Oviposition sequence

-  Dead
-  Sum

Habitat characteristics

First column: landscape.
The rate of suitability of a landscape for a species.

-  Black: this type of landscape is characteristic for the species
-  Grey: in this type of landscape the species occurs often
-  Light grey: in this type of landscape the species occurs only sometimes
-  Presence possible

75. *Coenonympha hero* (Linnaeus, 1761) / Scarce heath / Nymphalidae – Satyrinae

NL: zilverstreephoibeestje / D: Wald-Wiesenvögelchen / F: mélibée, le fadet de l'élyme



Photographs: Frits Bink ©.

Small, wing length 17 (16-18) mm. previously recorded from all countries in the Benelux, though scarce and local. The last record dates from 1992 from south Wallonia. It inhabited tall grass vegetation in moist places in open forest or forest borders.

Butterfly is on the wing from mid-May until end-June and peaks early-June. The species is known from continental climate, amplitude 9 to 18, required heat sum 600°d and maximum tolerated 1200°d, corresponding climate windows 21 and 26 weeks.

It has disappeared from most of its localities throughout Europe and proved to be very vulnerable. It is restricted to woody landscapes in a continental climate with snow cover in wintertime. In comparison with other *Coenonympha* species the larvae grow slowly, the butterflies produce only a small number of eggs and the young larvae and adults are vulnerable to drought and heat. Though the ecological characteristics show clearly that it is a fragile species; nevertheless, it occurs from the middle of Sweden and East-France, eastwards to Japan.

Ecological characteristics

Behaviour over time

Overwintering: half grown larva in third or fourth instar, 8-10 mm in length, hidden in a tussock of the host-plant.

Reproduction: oviposition starts after 4-5 days when the body contains 23 (20-26), estimated potential 2.4 times as much. Female produces 10-15 eggs per day.

Larval feeding periods: in summer 88 (77-100) days from end-June until mid-October, in next spring 54 (47-60) days from early-April until early-June.

Generations: one.

Spreading of risk: not observed.

Life cycle: egg 14 (11-16) days; larva 44-47 weeks; pupa 17 (14-22) days.

Life span of adult: short, 2 weeks.



Photographs: Frits Bink ©.

Behaviour in space

From stay-at-home to migrant: stay-at-home, spatial requirement modest.

Finding a mate: male patrols.

Orientation in the landscape: in gradient of wood or shrub towards tall grassland.

Oviposition: in a selected place on the host-plant.

Defence

Threats from other organisms: defence by larval camouflage.

Threats from the environment: very vulnerable to drought and heat.

Feeding habits

Adult: nectar and honeydew but little feeding activity.

Larva: in late summer it likes to bask.

Larval foodplants

Plant species accepted in rearing experiment: Poaceae, *Deschampsia cespitosa*.

Journal

Rearing experiment based on specimen from Stockamöller, Skåne, Sweden:

26 June 1984: one female collected.

29/30 June: 23 eggs laid.

9/12 July: eggs hatched.

26 July: larvae in moult L1-2.

2 August: larvae end second instar and were distributed over the whole *Deschampsia cespitosa* plant.

9 August: larvae 7 mm in length, preferred the sunny part of the plant.

13 August: larvae in third instar.

10 September: larvae third instar, 10-12 mm in length.

27 September: little feeding activity observed.

8 October: larvae hidden away deep in the tussock, appeared to be in diapause.

31 October: 14 larvae, 3 in L4, 11 in L3.

23 November: larvae had shrunk a lot, were smaller than those of *C. arcania* (cf.).

Overwintered outdoors.

8 March 1985: more than five larvae were feeding.

11 March: all larvae active, 12 mm in length.

25 March: a fresh moulted larva observed.

17 April: all larvae in L5.

24 April: seven pupae and six larvae.

13 May: first adult appeared, male.

14/15 May: six males hatched.

17/18 May: two females hatched.

19 May: butterflies became lethargic as soon as temperature reached 30°C.

26 May: 10 eggs had been laid.

2 June: one female died. Eggs laid: 36 and 48 per female, average 42, potential 1.3 times as much.

Eggs did not hatch, shrunk a lot, sensitive to drought.

Table 75-1. Results of dissections

75	Coenonympha hero				No. of ova in each size category in single ovariole							
date	Age in days	present egg load	estimated egg production	observed egg production	1.0	.5	.3	.1	.05	.03	.01	.005
17 May 85	1	8	24	-	1	-	1	-	1	1	1	3
26 May 85	5	-	-	10 per day								
29 May 85	8	-	-	4 per day								
30 May 85	9	-	-	10 per day								
2 June 85 †	11	3	-	4 per day	1	1	-	-	-	1	1	1
Total production in 7 days by one female				51								

Table 75-2. Collection and observation localities

B, Luxembourg, Ethe, Ladaireau, 240 m, 49° 36' 25"N – 5° 35' 50"E; 29 May 1966 (c. 30 adults present), by 23 May 1985 the population had disappeared due to the planting of poplar trees in its habitat.

S, Stockamöller, Skåne, 55° 56' 36"N – 13° 23' 55"E; 26 June 1984.

Fig. 75-1. *Coenonympha hero*, **phenogram** adapted from Ebert & Rennwald 1991: 103.

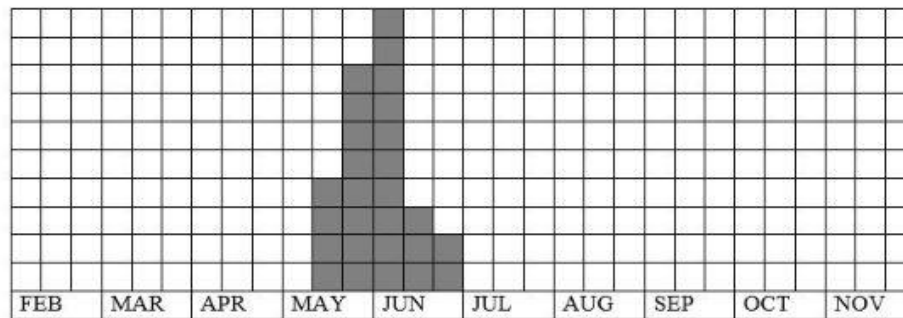
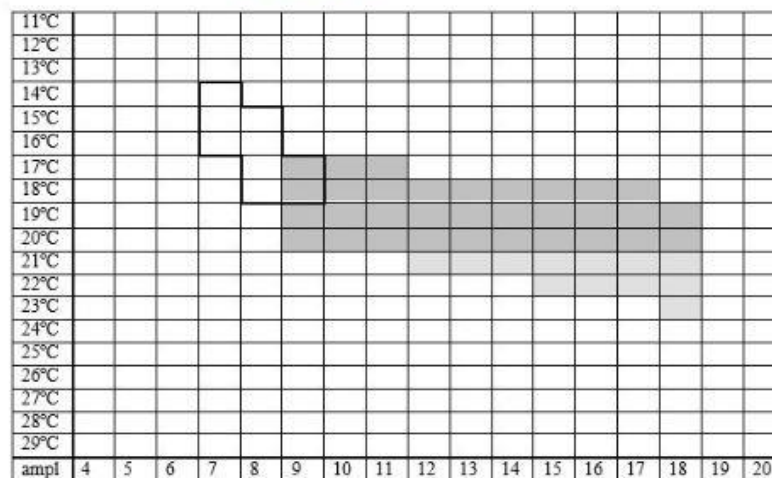


Fig. 75-2. *Coenonympha hero*, habitat characteristics.

Landscape: macro scale	Biotope or ecotope: meso scale	Detail: micro scale
Saltmarshes		
Dunes		
Drift sands		
Heathland		
Raised bog		
Marshes		
Grassland	16, scrubby grassland on wet soil	in proximity of a brook or brooklet
Brushwood		
Broad-leaved woods	43, light wood on wet soil	<i>Deschampsia cespitosa</i> and others
Coniferous woods	41, wood edge near brooklet	tall grass vegetation
Improved grassland		
Arable land		
Country side		
Urban area		

Fig. 75-3. *Coenonympha hero* climate matrix, heat-sums 600 - 1200°d.



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Oefeningen



Soort

Landschap

Fenogram

Klimaat matrix

Kweek van een Kleine vos

Duitstalige naam Kleine vos

Symbolen

Literatuur

Vegetatie eenheden

Woordenboek

Content + Monographs

Content + General Chapters

Content + General Chapters

Content + General Chapters

Monograph

Content, Monograph

Additions, Monographs

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Oefeningen



Naar volgend hoofdstuk
Verwijzingen in tekst

Vergroten rups

Melden foutje in tekst
Melden foute hyperlink

Hyperlinks boven/onder
Hyperlink

Openen tabblad (rechter muisklik)

Klik = nieuw tabblad

Onderaan tabblad ➔ Sylvain

Onderaan tabblad ➔ Sylvain

Benelux website Vanaf nu go live



Evolutie van de website

1. Tik- en lay out-fouten te verbeteren. Melden aan Sylvain aub
2. Invoeging vernieuwende foto's continu mogelijk
Met behoud van link naar de originele start foto's
Vorrang aan leden VVE WG DV
3. Nieuwe soorten in de Benelux in een extra webpagina
4. “New” extra webpagina toe te voegen

VVE WG DV

Voorjaar data



12 iii	BC Molbroek	Hannes Ledegen meetnetproject <i>Leptidea</i> piloot project
1 iv	Wageningen	5 presentaties door leden
15 v	Wachtebeke	<i>A. paphia</i> rupsen
3-6 vi	Doubs	<i>C. hero</i> & <i>L. helle</i>

Durme- Schelde project

Agenda



Zondag 7 ii	Eitjes Eikenpage/Sleedoorpage	Serskampse bossen
Zondag 6 iii	Eitjes Eikenpage/Sleedoorpage	Buggenhout bos
Zaterdag 23 iv	Dagvlinderwandeling	omgeving Kastel
Zondag 15 v	Rupsen Keizersmantel	Puyenbroek Wachtebeke
Zondag 19 vi	Koevinkje	Schelde D'monde - Temse
Zaterdag 25 vi	Koevinkje	Schelde D'monde – Temse
Zondag 17 vii	Grote weerschijnvlinder	bossen van Berlare.
	Kleine ijsvogelvlinder	i.s.m. VZW Durme
	Iepenpage	NP
Zondag 14 viii	Hooibeestje	Schelde D'monde - Temse



VVE WG DV

Najaar data



10 september

2 reisverslagen

8 oktober

project VVE WG DV

Journal Club

12 november

DS project Jurgen

project VVE WG DV

17 December

Jura

Flieflotter2016

VVE WG DV

Flieflotter2016



Behouden van 2 quoteringen informatief (1-10) – creatief (1-10)

- Categorie 1 Creatief (geen invloed informatieve punten)
 - Categorie 2 Informatief (geen invloed creatieve punten)
 - Categorie 3 Eerste stadia (\sum info/creatief)
 - Categorie 4 *A. levana*, Landkaartje. (\sum info/creatief)
 - Categorie 5 Dagvlinders W-Palearctisch gebied (\sum info/creatief)
-
- Geen 2 x dezelfde winnaar én in volgorde (1→2→3→4→5)
 - Jaartal foto niet van tel wanneer foto werd genomen
 - ≥ 9 foto's op website VVE WG DV / inclusie naar "Benelux" mogelijk breder

Pauze



Butterflies in the Benelux

Edited by Sylvain Cuvelier & Peter Russell



Belevenissen met de vuurvliinder

1959 – 2006

Frits Bink

Lycaena dispar batava



Lycaena dispar batava



Lycaena dispar batava





Rottige Meenthe 1965



Rupsen tellen in mei



Eitjes tellen in augustus

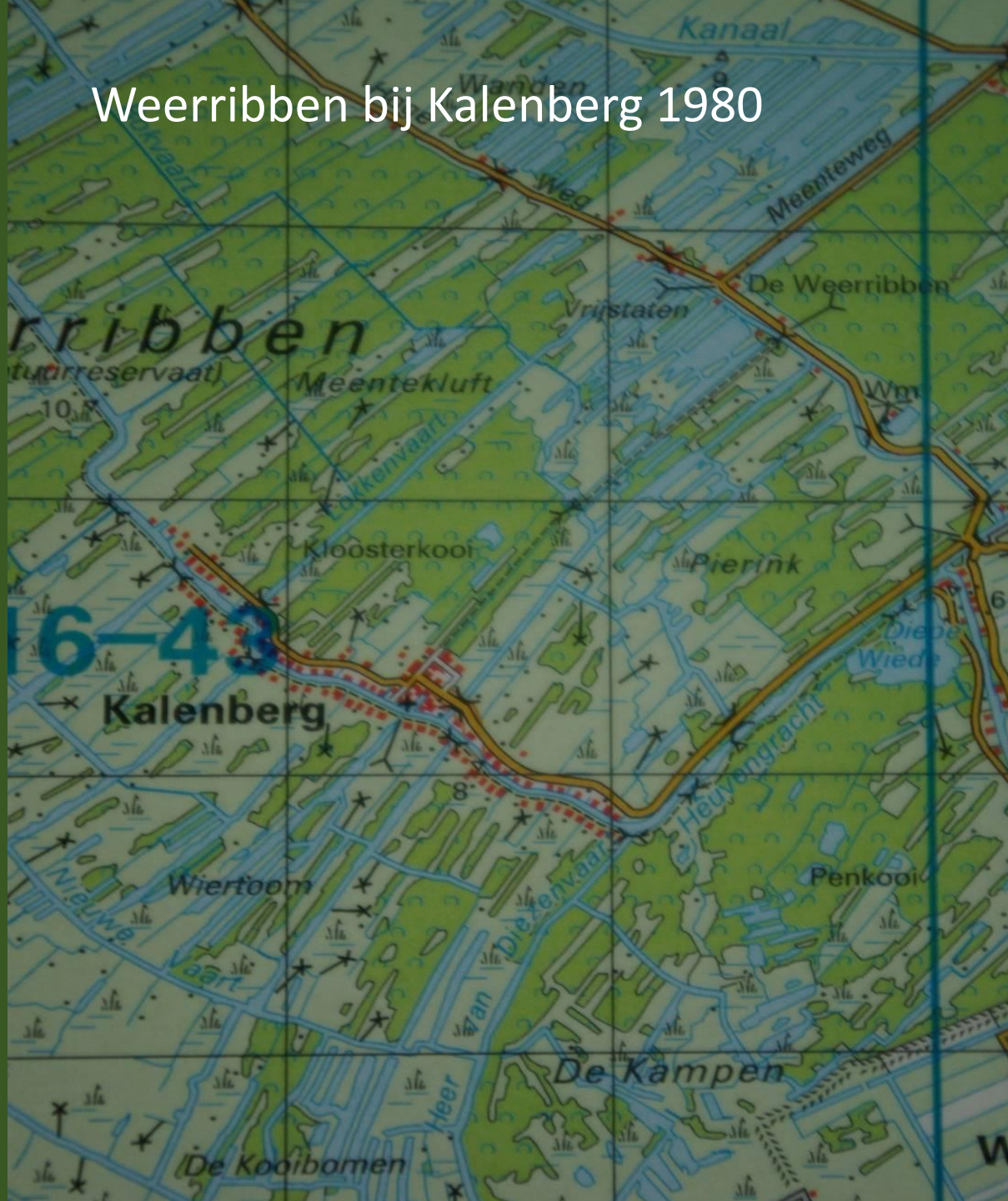


A detailed historical map of the Rottige Meenthe, Weerribben, and Lindevallei region, dated approximately 1930. The map shows a complex network of waterways, including the Oosterveen, Oosterveen, and Oosterveen. Key locations labeled include Rottige Meenthe, Weerribben, Lindevallei, and various smaller settlements and landmarks. The map is characterized by a dense grid of lines representing the waterways and the surrounding land. The color scheme is primarily blue for water and white for land, with some green areas indicating vegetation. The map is oriented with North at the top.

Weerribben omstreeks 1960



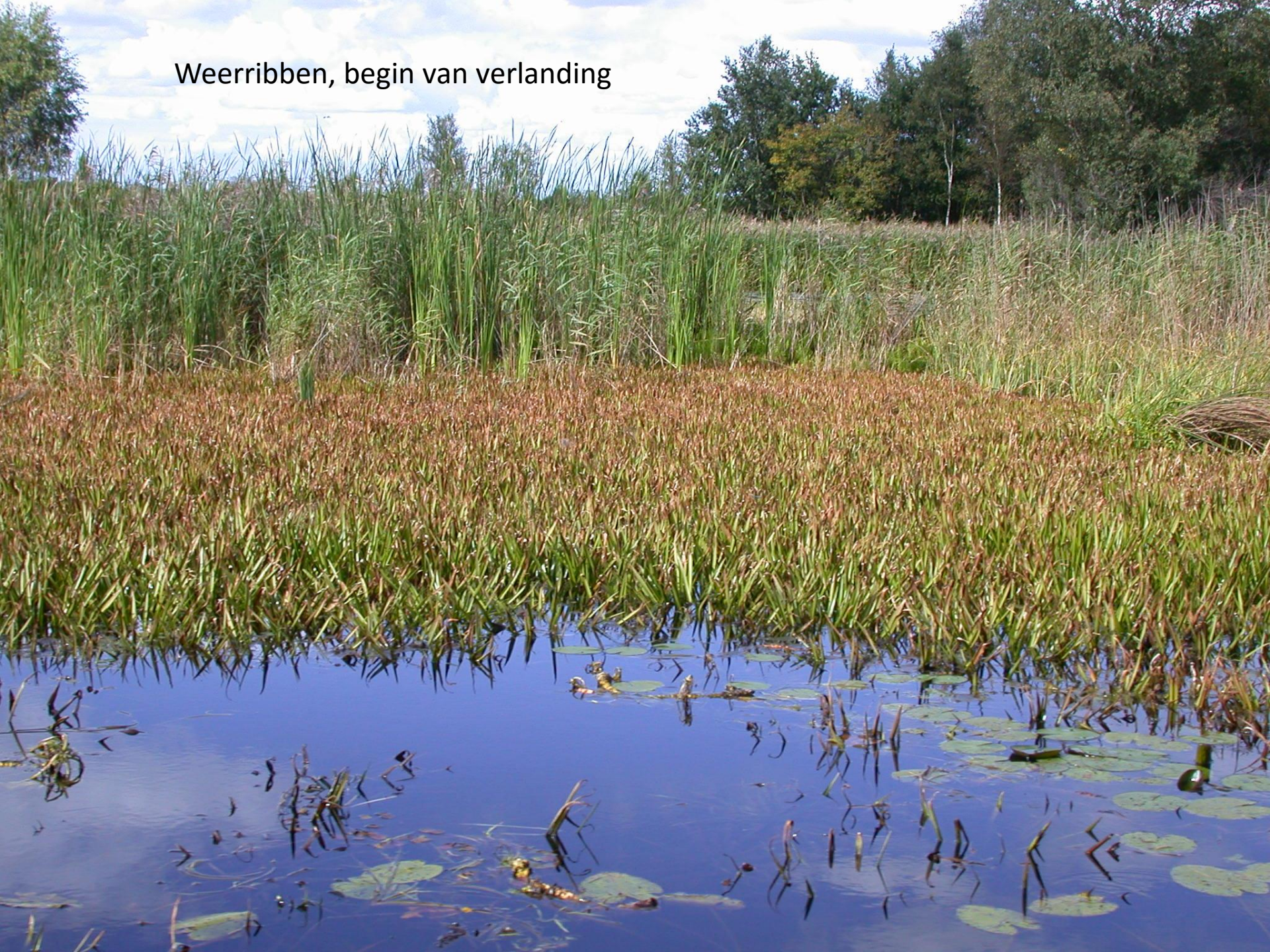
Weerribben bij Kalenberg 1980



Weerribben 1988



Weerribben, begin van verlanding



Weerribben, onderzoek opstelling



Weerribben, overleg deskundigen over proefopzet



Rupsjes begin september



Bancopolder, 1965, aanleg van de weg



Bancopolder, 1965, bodemprofiel



Bancopolder, 1981, bronplek grote
vuurvlinders



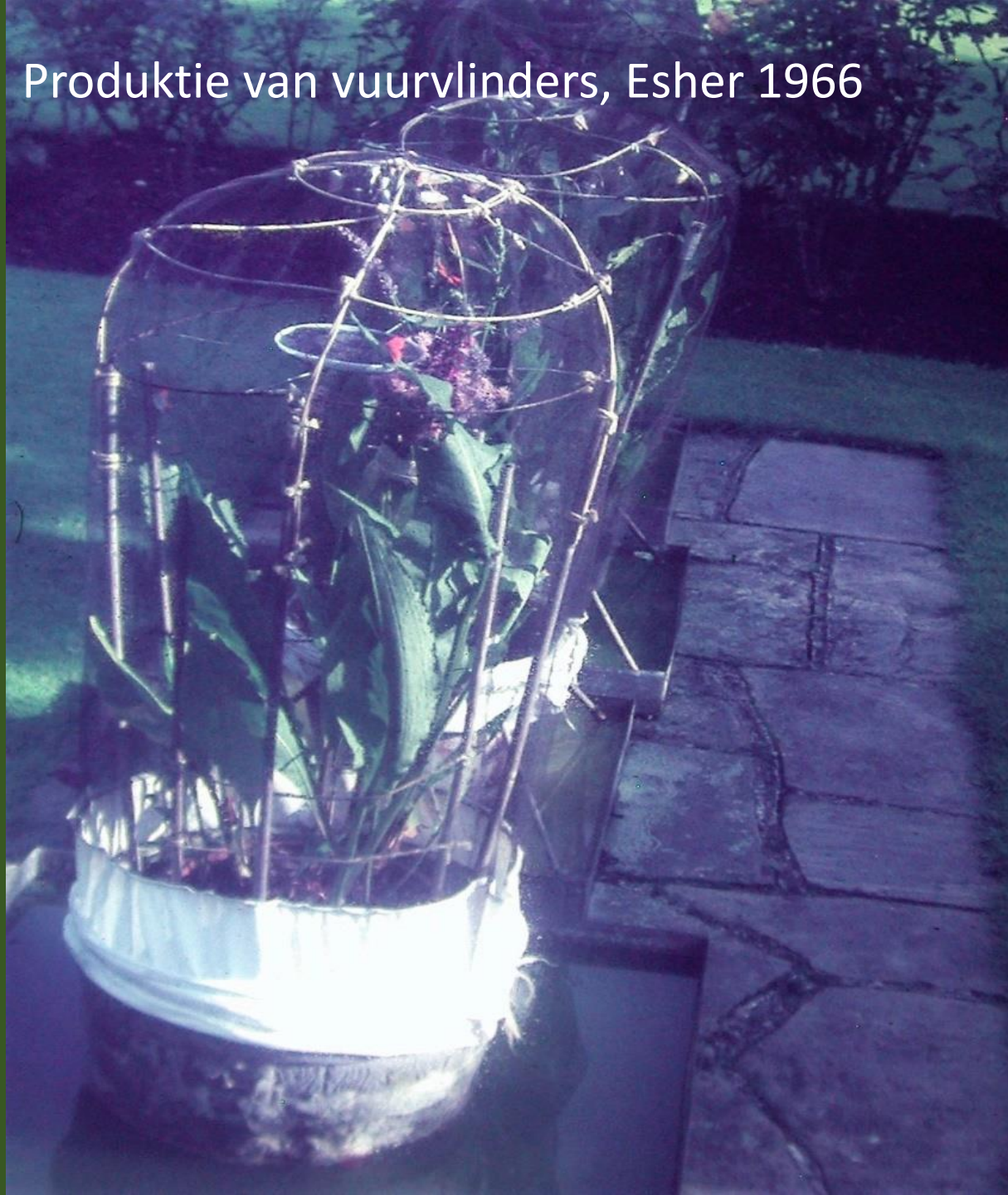
Harold Short, kweker vuurvlinders, Esher , 1966



Productie van vuurvlinders, Esher 1966



Productie van vuurvinders, Esher 1966



Resultaat van 30 jaar kweken, nieuwe vuurvliinder



Woodwalton Fen, vuurvlinderreservaat 1963



Woodwalton Fen, vuurvliinderreservaat, 1966



Woodwalton Fen, vuurvlinderreservaat, 1966



Blanquefort, locatie vuurvlinders, 1964



Blanquefort, locatie vuurvlinders, 1964



La Grande Brière, ook hier vuurvlinders, 2004



Jaulny, 8-7-2006 vlinders en rupsen
tegelijk



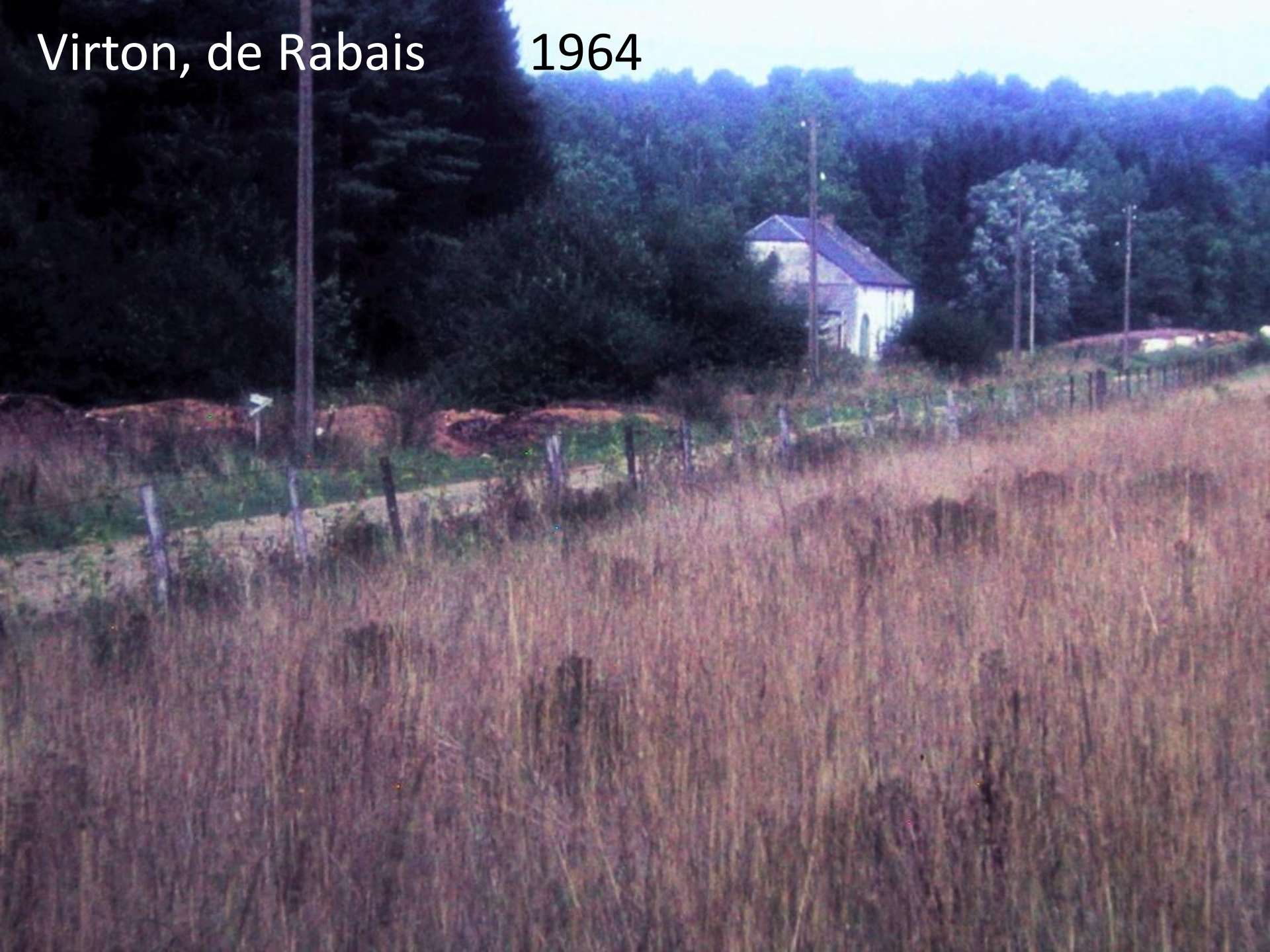
Jaulny, 8-7-2006, vlinders
en rupsen tegelijk



Rupsen te Jaulny, maar in
een berm 8-7-2006



Virton, de Rabais 1964



Virton, de Rabais, 1965



Virton, de Rabais, 1964



Virton, aan de Rabais, 1980



Ethe, la Claireau, 1980



Ethe, la Claireau, 1985



*Inschatten van effecten door veranderingen
in het landschap op de vlinderfauna*

Ken uw vlinder !

1. Wat zoekt het vrouwtje
2. Hoe overleeft de rups