Euchloe bazae (Spanish Greenish Black-tip)

The following pages on <i>Euchloe bazae</i> are an extract from a <i>draft</i> of chapter 4.4 of the publication <i>European Butterflies: A Portrait in Photographs</i> .
This extract will be available as a free download at:
www.butterflyeurope.co.uk
If you have any queries about the publication etc. please contact me personally at
butterflyeurope@btinternet.com
Because chapter 4.4 contains pages on other Pieridae species too, cross-references in the present extract cannot be followed.

Spanish Greenish Black-tip

Dappled White Group

Taxonomy and Systematics

Two subspecies are recognised in Europe:

E. b. bazae; E. b. iberae.



The recognition of two subspecies acknowledges geographical isolation and different foodplants of the taxa, see below.

As described on p. 1, the current view is that *E. bazae* flies in southern and northern Spain and a sibling-species, *E. charlonia*, flies in North Africa. Formerly, the taxa in northern Spain and North Africa were thought to be the same species, *E. charlonia*, and the taxon in southern Spain was regarded by some authors as a different species, *E. bazae*.

Distribution

E. bazae is a Spanish endemic found in two regions: the Hoya de Baza in the south where ssp *bazae* flies, and west of Lérida in the north, where ssp *iberae* flies.

Foodplant and Habitat

The foodplant of ssp *bazae* is *Eruca vesicaria* (a Rocket species) and of ssp *iberae* is *Boleum asperum*. *E. vesicaria* is an annual plant about fifty centimetres tall with white, four-petalled flowers veined in mauve and *B. asperum* is a shrubby species, endemic to the Ebro Valley, about one metre high with yellow flowers. Both are Cruciferae (Cress) species.

The habitat is similar in southern and northern Spain, being semi-desert consisting of stony, eroded hills.

Flight-time

E. bazae in Spain flies from March to early May with an uncertain voltinism.

The sibling-species, *E. charlonia*, has two or more broods in North Africa and may be found throughout the year depending on weather and locality.



Variation, Identification and Similar Species

Broadly, *E. bazae* is a small, bright yellow species with dark markings like other *Euchloe* species and both sexes are similar.

The ups ground-colour is sulphur-yellow and the only dark markings are on the upfw: a prominent black disco-cellular mark and a black apical patch with a row of yellow (ground-colour) marks within it.

The unfw is similar to the upfw, except the apical patch is greygreen and has no pale marks within it.

The unhw has a heavy suffusion of dark scales, which create an overall grey-green effect, among which there are some small white or yellow marks in a reduced version of those on the uns of white *Euchloe* species.



Females have averagely larger fw disco-cellular marks. This is usually obvious and enables the sexes to be distinguished.

E. bazae is very similar to *Euchloe penia* (Eastern Greenish Black-tip), but there is never any possibility of confusion, because the distribution of *E. penia* in southeastern Europe is nowhere close to that of *E. bazae* in Spain.

At rest, *E. bazae* is quite different from other yellow butterflies found in Spain and there should be no likelihood of confusion,

and even in flight, the small size of *E. bazae* gives it a distinctive appearance.

Photography

E. bazae males are very active and seemingly may fly without rest for much of the day. However, early in the morning or shortly after a spell of poor weather they will alight on the ground to warm up. Their inclination to hilltop is also evident. Thus a good rule is: get up early and get up high!

Females are relatively elusive, but easier to photograph when found.

06 April 1998; semi-desert region, Hoya de Baza, near Benamaurel, S Spain (right) **ssp** *bazae*

This male was resting briefly on the ground after a cloudy period before starting its relentless search for females.

The ups of both sexes is devoid of dark uphw markings.

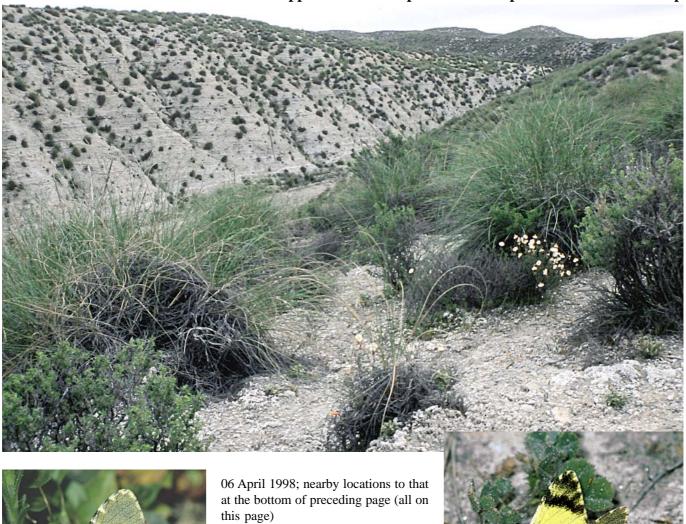
On the upfw, the black apical patch is perforated to show patches of the yellow ground-colour and the disco-cellular mark is prominent, but less so than that generally found on females, see p. 28. Higgins and Riley (1980), and also Tolman (1997), refer to the apical patch as being dark brown, but I think black is probably a better description.

The pictures as a whole of *E. bazae* in southern Spain show its propensity to alight on bare ground, as mentioned before. This particular spot was on the top of a low hill where most of the male activity was observed.



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ssp bazae

A notable feature of the habitat is the almost ordered pattern in which the clumps of *Stipa* grass seem to grow on the bleak, stony hills.

Females are found ovipositing in the eroded valleys where there may be cultivated land and recently disturbed

ground. Males, however, are commonly found flying on the dry hilltops, as in the foreground of the above picture.

The male (left, above and below) was, however, found in relatively sheltered habitat with more vegetation below the exposed, stony hilltop where the other male (right, above and below) was flying.

The unfw resembles the upfw in the boldness of the disco-cellular mark and ground-colour, but the apical patch is dissimilar in



being devoid of pale markings, except along the wing-margin.

The pale unhw markings are small and, compared to most other *Euchloe* species, incomplete.

The pictures on this and the previous page show there is little variation in the appearance of males from southern Spain.

The picture (left) has caught the insect in flight, it seems, as its feet are off the plant.





Dappled White Group

Euchloe bazae



06 April 1998; same region as pictures on preceding two pages, Hoya de Baza, S Spain (left, above and below; right, above and below)

ssp bazae

This female (right and below right) was found flying on waste-ground and searching for foodplants near the edge of a cultivated strip in a valley bottom in the hills pictured on the preceding page. The flight pattern of females looking to oviposit is quite different from males looking for females.

This female is clearly similar to the males on the previous page, except the fw disco-cellular mark is

larger.





reduced magnification

The combined picture (left), shows a basal rosette of the foodplant, Eruca vesicaria, and its flower (upper left).

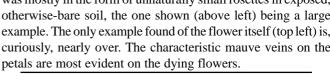
After the first pictures had been taken the insect was seen ovipositing, but then, while it was searching among the Stipa grass for another suitable plant, it flew into a spider's web, from which I released it. De-

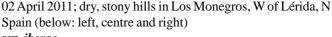
spite this, it contin-



ued searching for foodplants, but as can be seen (left) it had lost many scales.

It was hard to find the foodplant in the area, but when found it was mostly in the form of unnaturally small rosettes in exposed, otherwise-bare soil, the one shown (above left) being a large example. The only example found of the flower itself (top left) is, curiously, nearly over. The characteristic mauve veins on the petals are most evident on the dying flowers.





ssp iberae

This somewhat worn male was photographed early in the day on a hilltop where it flew with hardly any pauses. It is similar to ssp bazae from southern Spain, shown above and on previous

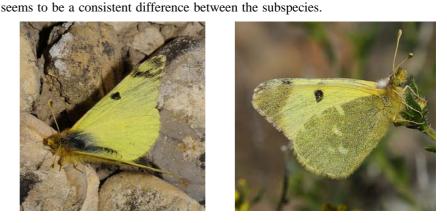
pages, except this individual has smaller fw disco-cellular marks.

The present insect also has a reddish tinge in the subcostal region of the unfw. This



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Butterfly pictures print at 1.8 times life-size on A4

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02 April 2011; same location as bottom of preceding page, N Spain (all on this page)

ssp iberae

The female (right, above and below) is like the males shown previously, except for the larger discocellular mark.

The distinct reddish colouring in the subcostal region of the unfw is confirmed on this female and the other insect (left), assumed to be male.

The reddish colour extends also to the hairs behind the head.

The dry, stony habitat in Los Monegros is similar to the Hoya de Baza in southern Spain. *E. bazae* was found flying over the waste and cultivated land in the foreground of the picture, but was seen more frequently on the hills in the background where *Boleum asperum*, the foodplant of ssp *iberae* (left) was growing.

Although B. asperum looks superfi-

cially very different from *Eruca vesicaria*, the foodplant of ssp *bazae*, both are members of the Cruciferae (Cress) family.

As may be seen comparing the habitat picture on this page with the one on p. 27, the rocks and soil where *E. bazae iberae* flies is more reddish orange than

where E. bazae bazae flies. Possibly this may account for the redder colours on the former subspecies.



