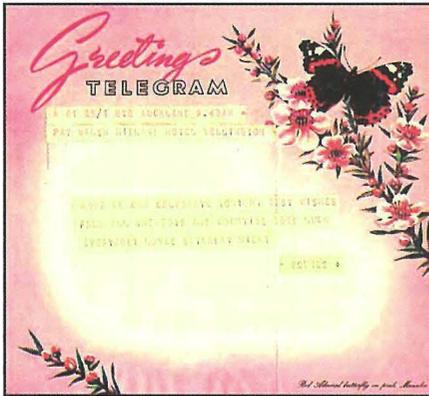
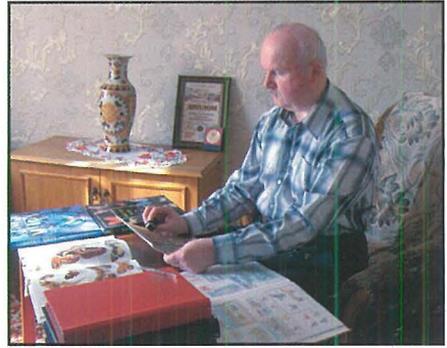


# TRAVELLING OF THE ADMIRAL BUTTERFLY

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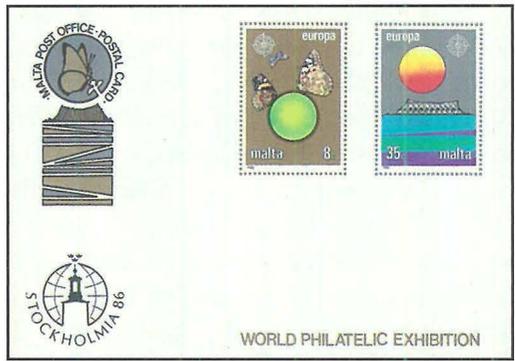
The hundreds of different species of butterflies surprise us with their beauty and a creative peak of perfection. Butterfly Admiral or Red Admiral with scientific name *Vanessa atalanta* is one of the most popular butterflies in Malta (fig. 1). It is spread from the Azores and the Canary Islands and Northern Africa through Europe to Asia Minor and Iran. It can be found in North America as far south as Guatemala. *Vanessa atalanta* has been found



2. Telegram of New Zealand 1961 with butterfly *Vanessa atalanta*



3. Artwork of Cook Islands 1997 with butterfly Admiral



1. Stationery card of Malta 1986 with butterflies and Red Admiral

even on Haiti and New Zealand (fig. 2). The first scientific description of the Red Admiral butterfly was written by the famed naturalist Carl Linnaeus in 1758. The name “admiral” is a corruption of the word “admirable,” a term given to the butterfly by early naturalists because of its striking coloration. The distinctive red-orange band across the wing of the Red Admiral makes this butterfly species easy to distinguish from other species (fig. 3). The common name “Red Admiral” compares this band to the chevrons on a naval uniform.

The red admiral is identified by its striking black, red-orange, and white wing pattern. On the dorsal side, its dark wings possess red-orange

bands on the middle of the forewings and the outer edge of the hindwings. The distal ends of the forewings contain white spots. The ventral side of the wings are brown with patches of red, white, and black. The hindwings have a brown marbled pattern (**fig. 4**). The wingspan ranges from 4.4 cm to 6.4 cm. This butterfly can be found almost anywhere, from the seashore and town gardens, to the tops of the highest mountains.



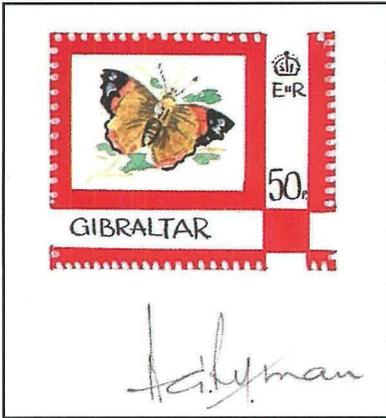
4. Accepted essay of Germany 1984

Red Admirals are one of the few species of butterflies that migrate over long distances (**fig. 5**). Scales on the wings of the butterfly Admiral have a special structure. The wing surface of the butterfly Admiral is covered with millions of tiny movable appendages – scales (30  $\mu\text{m}$  to 200  $\mu\text{m}$  in size). Each butterfly scale is a long and flattened extension of cuticle and generally resembles a gathered sack consisting of lower and upper laminae. These laminae are separated by a hollow region. The lower lamina is a flat plate from which trabeculae rise to join the upper lamina. The upper lamina is a complex structure consisting of ridges (spacing 2  $\mu\text{m}$ )



5. Stamp of St. Pierre & Miquelon 1975 with migrate of Admiral butterflies

with inverted V-profiles and grooves which are discrete openings. The inverted V-profiles of the ridges form the micro channels (1.5  $\mu\text{m}$  to 2  $\mu\text{m}$  in clear lamina spacing), which are disposed between the airpermeable upper lamina and airproof lower lamina. The root edge of the wing scale is closed, and the tip edge is open. In most cases, the scales of butterflies are attached to the wing membrane by a narrow neck around the base of appendages that allows free motion of the high aspect ratio scale normal and parallel to the plate of insect wing. Studies have shown that this cover has a wide range of functionality: it increases the lift of the wing, controls the microflows of air near the wing and stabilizes the flight. In the autumn the Red Admiral butterflies fly from Europe to Africa to lay eggs there, after which she dies. The next year her offspring flies back from Africa to Europe in the spring. Not all butterflies make such long distance flights, but only some species. Butterflies always wander alone and fly low to the surface of the earth. During a long flight butterflies develop a speed of up to 15 km / h. They fly where the wind does not blow so much and the butterflies do not need to spend their energy fighting it. Occasionally, during migration, certain species of butterflies fly across the continent. The wings of butterflies are permeated with blood vessels. Blood contains special chemicals that protect the wings from freezing, if the cold weather finds a butterfly on the road. Wintering butterflies fly to warmer lands (**fig. 6**). Not departing butterflies



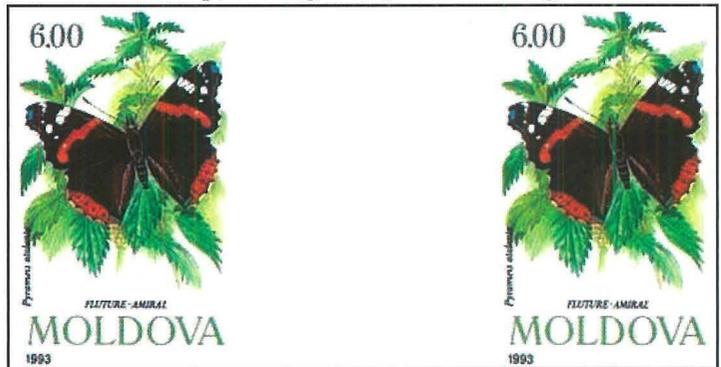
6. Stamp size essay of Gibraltar 1977 with butterfly Admiral

However, red admirals will visit some flowering plants if these primary sources of food aren't available (fig. 8). Butterflies try food, standing on the very food, as the taste sensors of the butterflies are at their feet. Admirals fly fast and randomly. Red Admirals tend to be fidgety and swift insects that rapidly change direction throughout the course of their flight. Red Admirals are considered to be people-friendly butterflies that will approach and perch on human beings. Red admirals in the over-wintering generation can live up to 10 months. The Red Admiral is an admired butterfly, popular in much of North America, Asia, and Europe (fig. 9). This butterfly enjoys many types of environments and has a strong affinity to flowers.

The aesthetic beauty of the Red Admiral is one of the most underrated values of this species. Due to the Red Admirals wide-spread range throughout the Americas,

admiral winter in crevices or under the bark of trees. Adult specimens of butterflies, being in the winter hibernation, retain in their bodies the substances necessary for survival. With the first spring rays of the sun, the butterfly leaves its shelter. In northern Europe, it is one of the last butterflies to be seen before winter sets in, often feeding on the flowers of ivy on sunny days (fig. 7).

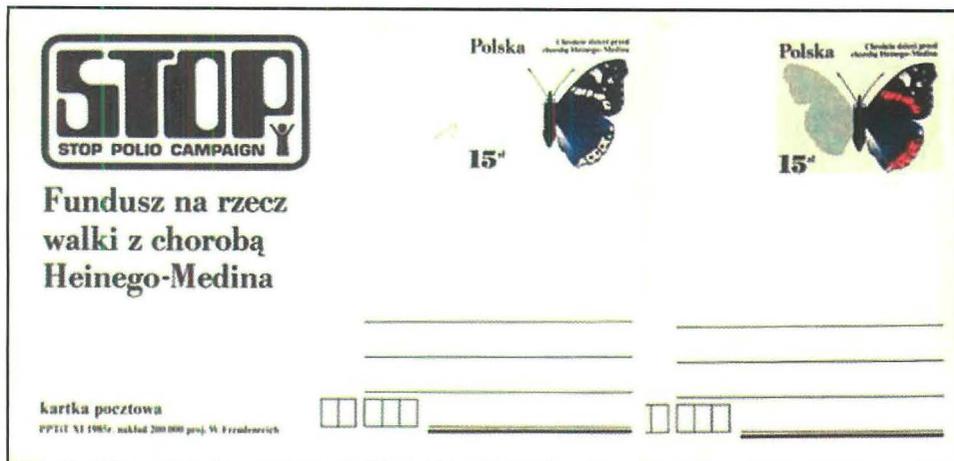
Unlike many species of butterflies, plant nectar is not the main food source for red admiral butterflies. They prefer to feed on tree sap, rotting fruit, animal dung and carrion.



7. Imperforated pair stamps of Moldova 1993 with butterfly Admiral



8. Essay of Hungary 1959 with butterfly Admiral



9. Stationery card of Poland 1985 with butterfly Admiral and color error

Europe, and Asia, their beauty can be enjoyed by many. Red Admirals are often found nectaring at red clover, aster, and Buddleia flowers; this combination of flowers and butterflies further enhances their aesthetic value. The Red Admiral is beautiful species that are the decoration of our nature (fig. 10).

The Author is ready to help for philatelists in creating of philatelic exhibits on butterflies and moths. His address: Vladimir Kachan, street Kulibina 9-49, Minsk-52, BY-220052, Republic of Belarus, E-mail: vladimirkachan@mail.ru



10. Stamp of Malta 1993 with butterfly Admiral

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