Impact on Chios biodiversity of man-made and natural disasters.

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Chios has experienced events, both man-made and natural, over the last millennia which have permanently modified the landscape and have therefore affected the plants and animals living there. Some events have been beneficial to increasing biodiversity in the long term, some have been irreversibly destructive.

To put historic events into perspective it is fair to say that the development of mastic cultivation and the harvesting of pine resin from the *Pinus brutia* trees modified the ancient natural landscape. These human interventions changed the natural landscape of Chios from one of more or less continuous forest cover, with limited biodiversity, to one with increased open spaces with the opportunity for colonisation by diverse plants and animals. These ancient practices lead to improved opportunities for flowering plants including grasses to flourish which in turn allowed the development of agriculture, grazing by herds of goats and bee keeping.

To put more recent events into perspective it is appropriate to assess the relative impact of two particular occurrences on their long term effects on Chios biodiversity.

Event 1. The Great Fire of Chios August 2012.

The presumably naturally started fire of August 2012 consumed about 30,000 Hectares of forest, phryganae and upland areas. Whilst there were some extensive totally fire consumed areas, the fires generally passed quickly over low vegetation and grasslands driven by strong winds, though many large mature pine trees burned for many days afterwards. The pattern of burnt areas was generally patchy with many unaffected areas dispersed within the burnt landscape. This allowed re-colonisation of burnt areas by adjacent surviving plants and animals. Dormant seeds from the natural ‘seedbanks’ in the burnt areas, stimulated by autumn rains took advantage of the newly opened tree canopy to flourish, much to the subsequent advantage of goats and bees.

The main problem after the fire was an aesthetic one caused by the many remnant blackened tree trunks within the landscape. Many burnt trees were conveniently near to roads and tracks and have now been cut down for use as firewood, a process likely to continue for some years to come.

A visitor today can see a glimpse of how the 2012 fired areas will look in ten or fifteen years by looking at the area to the west of Viki which had a similar patchy fire many years ago.

My view is that the overall biodiversity of Chios is maintained and possibly even increased as a result of regular forest fires of a patchy nature, such as occurred in 2012. Nature is quite able to recover in total from such events, as the long term habitat is not altered to the detriment of nature.

Event 2. Marmaro Marsh Solar Panel Farm and Fenced Area.

The recent man-made interventions onto Marmaro Marsh, a protected area under the’ Natura 2000’ Treaty and the Presidential Decree of 5th July 2012, pose the highest level of threat imaginable to Chios biodiversity. This is a unique habitat in Chios once only previously seen at Kontari Marsh prior to the development of the airport. The airport development has resulted in the irrecoverable loss of nearly all of the original Kontari Marsh, many of the plants and animals once abundant there are now lost to Chios forever on that site.

Their last hope for survival on Chios now rests on the fate of Marmaro Marsh, and to a lesser extent Lithi Marsh.

In my view it is important that, to protect Chios biodiversity, development on Marmaro Marsh cease and that steps should be taken to see how the ‘status quo ante’ can be reinstated there. The protection of the marsh is a major requisite for increasing eco-tourism in Chios, particularly for the important bird-watching fraternity.