

Getting our priorities right



The population of the Bedriaga's frog at Ta' Sarraflu in Kerċem has increased. The impacts of such alien species on local biodiversity need further study.

We all have an inkling of roughly when the next general election is due (2013), when works to revamp Valletta's main entrance will be completed (2013), when the world is destined, according to the doom-sayers, to end (2012) and when Malta will assume the rotating presidency of the European Union (2017).

However, few of us are aware that the year we are currently in - 2010 - has been declared by the United Nations as the International Year for Biodiversity. In fact, while the climate change issue hogs the limelight, biodiversity fails to cause the same kind of stir on the local scene.

Few of us are acquainted with three biodiversity-related aspects in particular. Firstly, the population at large is unfamiliar with the actual meaning of the word 'biodiversity'. It incorporates three dimensions - the variety of habitats and ecosystems, the variety of species (the definition most people understand) and the variety of genes within a species (which is being cut down due to the abandonment of traditional farming techniques).

A landmark ad hoc convention - the Convention on Biological Diversity - was signed in Rio de Janeiro by more than 150 contracting parties (including Malta) on June 5, 1992, at the United Nations Conference on Environment and Development (referred to as the 'Earth Summit') defines biodiversity as "the variability among living organisms from all sources, including terrestrial, marine and other aquatic ecosystems, and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems".

The European Commission had, in 2002, set itself the ambitious target of halting biodiversity loss by 2010, only to admit last year that it had failed dismally.

Secondly, we seem blissfully unaware that we are currently experiencing a biodiversity crisis of unprecedented proportions, the so-called 'Sixth Mass Extinction'. A mass extinction is a period during which irrevocable loss of species rates are disproportionately higher than usual, resulting in the loss of a sizeable number of living species.

One might interject that extinction is a natural phenomenon (species tend to have an average lifespan of around two million years, with the exception of living fossils, such as sharks and many reptiles). This implies that there were five previous mass extinctions. However, these took place over a much longer timespan (hence, giving ecosystems time to adapt to the gradual loss of species) unlike the current mass extinction.

Researchers estimate that the current rate of extinction is between 1,000 and 10,000 times the rate before humans started exerting a significant pressure on the environment.

Thirdly, we fail to connect all this to Malta. We may have watched documentaries depicting the dire straits of the Amazon, polar regions and coral reefs, but the tribulations faced by local biodiversity escapes us.

We happen to live in a region - the Mediterranean - which is regarded as a hotspot of biodiversity and of endemism. Endemic species are restricted to one particular country, and the Mediterranean harbours a disproportionately high number of land plant species (circa 20,000) and marine species (circa 12,000), of which 60 and 25 per cent respectively, are considered endemic.

Stunningly, about 20 per cent of all Mediterranean species are considered as threatened. To make matters worse, we live on a small island, and islands are considered as biodiversity hotspots in their own right, due to their long coastlines and the isolation of island populations from mainland ones.

Island biodiversity is also very prone to the introduction of alien species as tourism normally assumes increased importance in islands, exacerbating human impacts.

Malta's biodiversity is mesmerising - we have a total of about 5,000 species (not including marine species), of which about 1,300 are plants and 80 species are endemic. A number of other species, including the wall lizard, are also considered as sub-endemic species, that is they are restricted to our islands and Sicily or north Africa.

What can we do? The current scourge being faced by biodiversity spawns is the result of the 'Hippo' set of human pressures - Habitat destruction and fragmentation, introduction of invasive species, pollution, population (that is, the ever-increasing human population) and over-exploitation of species.

Locally, major threats to biodiversity stem from the destruction of garigue for agriculture, bird-trapping and the construction of new roads, the indiscriminate collection of specimens (for example, the French daffodil (narċis), frogs and other attractive species) and the wilful or accidental introduction of alien species (such as the Bedriaga's frog at Ta' Sarraflu freshwater pool in Kercem, Gozo, the Cape sorrel (Haxixa Ngliza), which carpets fields and rubble walls, and the Hottentot fig, which is planted for ornamental purposes in roundabouts).

Activities that degrade Malta's biodiversity should be publicised in the same way as illegal developments are. The pillaging of garigue should receive the same attention as ODZ developments. Education is obviously instrumental in this regard.

Why should we care? Some people justify the conservation of biodiversity for anthropogenic reasons, citing the fact that biodiversity and products derived from it fuel our material development (for example timber, pulp, cures for cancer, ecotourism products, and so on).

However, there is a deeper, somewhat overlooked rationale for protecting species and habitats, which has to do with man's stewardship role of nature and the responsibilities this brings. We basically have a moral duty to protect life, in all its forms, irrespective of the monetary benefits and employment opportunities it brings about.

As Edward Wilson, author of the masterpiece *The Future of Life*, and revered by *The Times* of London as "the world's greatest living writer on science", concludes: "A civilisation able to envision God and to embark on the civilisation of space will surely find the way to save the integrity of this planet and the magnificent life it harbours."

Hopefully, biodiversity and its conservation will take centre stage at this year's activities to mark World Environment Day, and local authorities will wake up, as they have done with climate change, to a proactive role our country can assume in this regard.

Let us hope that biodiversity issues start grabbing the headlines - the onus is on politicians to ensure that this happens.

End of the Line

In a few days' time, the local premier screening of *The End of the Line* documentary (<http://endoftheline.com>), which chronicles the impacts of overfishing, will be held.

The documentary, branded as 'The Inconvenient Truth of Fishing' by *The Economist* is a shocking testimony to the sheer scale of the problem of overfishing, arguing that most seafood will perish by 2048 if we do not reduce our pressure on fish stocks.

The documentary points its finger at aquaculture, which gobbles up about 70 per cent of the annual production of fish meal (mainly small fish used as feed for farmed fish species), which is threatening such small fish species. Well done to Global Ocean and all those involved in the production of this epic documentary.