The case for increasing protection of mediterranean habitats

Emma C. Underwood, Kirk R. Klausmeyer, Robin L. Cox, Sylvia M. Busby, Scott A. Morrison, and M. Rebecca Shaw. 2009. ***Expanding the global network of protected areas to save the imperiled mediterranean biome.*** *Conservation Biology 23: 43-52. Contact: rcox@tnc.org*

Mediterranean habitats are among the rarest on Earth. Characterized by warm dry summers and cool wet winters, they are restricted to only 2% of the Earth's land surface—portions of southern Australia, Chile, South Africa, California and Baja California, and the Mediterranean Basin. Though small, these five regions of the planet collectively harbor a remarkable 20% of the Earth's vascular plant diversity. This diversity is some of the most imperiled in the world.

An article in the journal *Conservation Biology* analyzes the status of conservation of the "mediterranean biome", based on the amount of habitat formally designated as protected. "Protected areas", such as national parks or wildlife reserves, can be highly effective in preventing land conversion and in buffering natural systems from many human-caused threats. Networks of protected areas are thus an important component of regional strategies to protect biodiversity.

Expanding protected areas to encompass at least 10% of the total land area of each of the world's major habitats is a goal adopted by many governmental and non-governmental entities as part of the global Convention on Biological Diversity. Unfortunately, the global network of protected areas across mediterranean regions is far below that 10% threshold: globally, only 4.3% of the mediterranean biome has such protection. This low number is especially alarming considering that for every acre that has been protected, eight acres have been converted to human land uses.

Clearly, the world's mediterranean regions warrant increased conservation investment—but where? Are some habitats less protected, and so perhaps higher priority, than others? To help inform where future conservation investment might best be directed, the authors evaluated how existing protected areas are distributed globally and how well they capture the full range of mediterranean ecological systems. They found that many ecological systems—for example, the habitats of lowlands—were extremely under-represented in the global portfolio of protected areas. Indeed, some entire *regions* of the mediterranean biome—namely, those in Chile and the Mediterranean Basin—were conspicuously under-protected. This study suggests where investment must be increased if the pronounced diversity and endemism of the mediterranean biome is to be conserved.

Key points

- Protected areas are an essential conservation tool and provide a key measure of conservation success.
- Protected area coverage in mediterranean regions of the world amounts to 4.3%–well below internationally-adopted minimum goals.
- Protected areas in the mediterranean habitats of Chile and the Mediterranean Basin encompass less than 1% of the land area.
- The study suggests where to focus future conservation investment, to increase and more evenly distribute protected areas across the diversity of mediterranean ecological systems.
- This work joins a growing body of literature that helps practitioners enhance biodiversity return on protected area investments.