PHOTO: NEIL BOWMAN VIA MINDEN PICTURES

The endangered great knot depends on habitats along the shores of the Yellow Sea, a stop on the East Asian–Australasian Flyway migration route.

South Korea's wind energy threatens flyway

South Korea is rapidly expanding offshore wind energy to meet carbon neutrality targets (*1*, *2*). Although decarbonization is imperative, the energy infrastructure now underway threatens the Yellow Sea segment of the East Asian–Australasian Flyway. South Korea should avoid siting offshore wind projects in internationally important tidal flats and migratory bottlenecks and should require flyway-scale cumulative impact assessments before further construction proceeds.

The East Asian–Australasian Flyway supports more than 50 million migratory waterbirds annually, including numerous globally threatened species (*3*, *4*). Decades of coastal reclamation have eliminated vast areas of Yellow Sea tidal flats, sharply reducing staging habitat (*5*, *6*). As habitat has contracted, shorebirds have become increasingly concentrated at the few remaining intertidal systems along Korea's west coast.

South Korea is now deploying large offshore wind complexes within this corridor. Turbine arrays in the Southwest Offshore Wind Demonstration Complex lie about 22 km from the United Nations Educational, Scientific and Cultural Organization (UNESCO)–listed Gochang tidal flats (*7*), squarely within the primary staging band used by migratory shorebirds (*8*). In systems where substantial fractions of global populations aggregate at a small number of sites, localized disturbances can propagate across continental scales.

Migratory connectivity—the geographic linkage among breeding, staging, and nonbreeding populations—determines how impacts at single nodes of the flyway reverberate throughout annual migration cycles (*9*, *10*). Population declines of species such as the great knot have already been linked to Yellow Sea habitat loss (*6*). Additional displacement, barrier effects, or cumulative disturbance from extensive wind-energy infrastructure may therefore carry disproportionate demographic consequences.

As offshore wind development accelerates worldwide to meet climate targets, spatial conflicts between decarbonization and migratory connectivity are likely to intensify in other coastal regions as well. Renewable energy expansion is essential, but turbines should not be built in key migratory bottlenecks, major staging and wintering sites, or consistently used movement corridors. Rather than evaluating each project in isolation, planners should integrate bird tracking, long-term census data, and cumulative impact assessment across the full migratory route. Without flyway-scale planning, infrastructure could compound habitat loss with corridor-level fragmentation in the world's most irreplaceable migratory systems.

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The EU's cryosphere biodiversity blind spot

The Decade of Action for Cryospheric Sciences (2025–2034) has begun (*1*), but international and regional guidelines for managing glacier ecosystems are lacking. In the European Union (EU), the only legislative tool that acknowledges glaciers as a protected habitat is the EU Habitats Directive (*2*), but even that does not fully take into account glacier biodiversity and its complexity (*3*). The absence of legally mandated biodiversity monitoring in these environments is unacceptable in the face of irreversible loss.

The Earth's cryosphere, which includes glaciers, permafrost, and snow, is rapidly melting (*4*, *5*). Glacial ecosystems host highly specialized, and often endemic, biodiversity such as the Apennines glacier flea (*Desoria calderonis*) and the Patagonian stonefly (*Andiperla morenensis*) (*3*, *6*–*8*). However, international assessments of the cryosphere crisis largely overlook glacier biodiversity, focusing instead on glacial

melting, hydrological or climatic impacts, and cultural importance (*4*, *5*). As a result, biodiversity remains peripheral in policies and strategies designed to address glacier loss.

To confront this failure, the EU and its member countries should implement integrated and enforceable frameworks to document and preserve glacial biodiversity. Italy, home of several glaciers of the European Alps, provided a promising precedent by recognizing glaciers as a "common good" in 2024 (*9*), but the commitment is hollow without a concrete policy that enforces protection. The EU and its member countries should establish multidisciplinary panels in glacierized regions to design and coordinate place-based management strategies, such as limiting skiing activities at the sites where the endangered species occur (*10*). In addition, EU countries that contain glaciers should adopt legally binding guidelines to ensure systematic biodiversity monitoring and to mitigate harm caused by human infrastructure. Finally, even if glaciers disappear, their biodiversity may not be doomed to extinction; some species could survive in cold landforms (*11*) that provide stable microclimatic conditions. Identifying climatic refugia will allow countries to define strictly protected sites, thereby curbing biodiversity loss (*12*).

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France must protect pollinators over pesticides

Pollinating insects, which are essential to biodiversity, plant reproduction, and crop production, are in decline (*1*, *2*). In Europe, pollinator populations have declined markedly over recent decades (*1*–*3*), a trend driven in large part by the use of pesticides (*1*, *2*). To address pollinator loss, France prohibited the use of neonicotinoids in 2018 (*4*). However, in July 2025 (*5*) and again in January 2026 (*6*), French senator Laurent Duplomb proposed laws to reauthorize neonicotinoids. After more than 2 million citizens signed a petition against the first bill (*7*), the French Constitutional Council struck it down (*8*), but the second bill is still under discussion. This law, if approved, would violate the first article of France's charter for the environment, which states that "everyone has the right to live in a balanced environment that is conducive to good health" (*9*). French lawmakers must reject this harmful bill.

Pesticides negatively affect biodiversity, ecosystem functioning, and human health (*1*, *2*, *10*). By affecting nontarget organisms such as pollinators and parasitoids, they threaten ecosystem services such as pollination and pest control (*1*, *2*, *10*). Contamination of soils, water, and food poses risks to human health, including neurodegenerative diseases and cancers (*1*). Yet they remain extensively used in intensive agriculture, with toxicity levels increasing over time (*11*), even though effective agroecological alternatives are available (*12*). The 2026 Duplomb bill would exacerbate these negative effects by reinstating banned systemic insecticides such as acetamiprid and flupyradifurone.

As scientists, pollination ecologists, and concerned citizens, we call on French and European lawmakers to replace this bill with policies that align with the scientific consensus. Legislation should prioritize and scale up sustainable practices and alternatives to pesticides (*12*), evaluate crop-specific solutions, and provide sustained support to farmers committed to agroecological transition. These approaches would support farmers without reintroducing harmful pesticides.

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