

Egregio Signor Presidente [Barak Obama],

noi sottoscritti siamo scienziati del mare, uniti nella nostra preoccupazione per l'introduzione di test sismici per l'esplorazione di gas e petrolio lungo le coste statunitensi del medio e del sud Atlantico. **Questa attività rappresenta un rischio significativo per la vita marina in tutta la regione.**

Per identificare depositi sotto i fondali marini, gli operatori usano una schiera di airgun ad alto volume, che esplodono approssimativamente ogni 10-12 secondi, spesso per settimane o mesi interi, con suoni quasi altrettanto potenti di quelli prodotti da esplosivi chimici sottomarini. Negli scorsi sei mesi sono già state presentate nove richieste, che coprono più volte l'intera superficie della regione e talvolta duplicano le prospezioni nella stessa area. In totale, le attività previste dal Dipartimento dell'Interno (Interior Department - ID) risulterebbero in oltre 20 milioni di spari sismici.

Gli airgun hanno un'enorme impronta ambientale. **Per la balenottera azzurra e per altre specie minacciate di grandi balene, per esempio, è stato dimostrato che queste prospezioni hanno effetti distruttivi rispetto ad attività essenziali come l'alimentazione e la riproduzione, in vaste aree dell'oceano.** Inoltre, le prospezioni potrebbero aumentare il rischi di separare i cuccioli dalle madri, con effetti letali [sui piccoli], e col tempo causare uno stress comportamentale e psicologico cronico. **Lo stesso ID ha stimato che le prospezioni sismiche avrebbero effetti distruttivi sui comportamenti vitali di mammiferi marini con oltre 13 milioni di "effetti" nei primi sei-sette anni, e ci sono buone ragioni per considerare questo numero una sottostima significativa.**

Gli impatti degli airgun si estendono ben oltre i mammiferi marini, a tutta la vita del mare. Molti altri animali marini rispondono ai suoni e la capacità di udire altri animali e segnali acustici ambientali è di importanza critica per la loro sopravvivenza. **Le prospezioni sismiche sono note per far allontanare specie ittiche d'importanza commerciale, con gli effetti – in alcune attività di pesca – di diminuire in modo drammatico i tassi di cattura.** Gli airgun possono causare anche mortalità nelle uova e nelle larve di pesce, possono causare perdita dell'udito e stress psicologico, interferire con i richiami riproduttivi degli adulti e rendere meno efficaci le risposte contro i predatori: tutto ciò solleva la preoccupazione per impatti notevoli sulle popolazioni ittiche. In alcune specie di invertebrati, come la capasanta [in genere: molluschi bivalvi noti anche come "pettini"] gli spari degli airgun e altri rumori a bassa frequenza interferiscono con lo sviluppo embrionale e larvale. E specie minacciate e a rischio come le **tartarughe marine, la cui vulnerabilità agli impatti dei rumori è quasi del tutto inesplorata, hanno le frequenze uditive più sensibili alle stesse basse frequenze in cui si concentra la maggior parte dell'energia degli airgun.**

La decisione del ID di autorizzare le prospezioni sismiche lungo le coste dell'Atlantico è basata sull'ipotesi che queste attività avrebbero solo un impatto trascurabile sulle specie e sulle popolazioni marine. **La nostra valutazione di esperti è che l'ipotesi del Dipartimento non è sostenuta dalla migliore scienza disponibile. Al contrario, la magnitudine dei test sismici proposti è tale da avere verosimilmente impatti significativi, prolungati e diffusi sulla riproduzione di popolazioni di pesci e mammiferi marini nella regione, inclusa la Balena Franca del Nord Atlantico, di cui restano solo 500 esemplari.**

Aprire le coste orientali degli Stati Uniti alle prospezioni sismiche con airgun pone un **rischio inaccettabile di danni seri alla vita del mare a livello di specie e di popolazioni, la cui piena entità sarà pienamente compresa solo molto dopo che il danno sarà stato fatto.** Mitigare tali impatti richiede una comprensione molto migliore degli **effetti cumulativi**, che non sono stati adeguatamente valutati, così come la **definizione di limiti rigorosi, molto precauzionali, sulla quantità di prospezioni che si possono fare annualmente o contemporaneamente**, cosa che non è stata per nulla regolamentata. **Procedere in modo differente semplicemente non è sostenibile.** Conseguentemente, con rispetto noi ci appelliamo a Lei – Signor Presidente – per rigettare l'analisi del ID e la sua decisione di introdurre test sismici per l'esplorazione di gas e petrolio lungo le coste atlantiche statunitensi.

Con rispetto,

<http://news.neaq.org/2015/03/full-text-letter-urging-president-to.html>

Dear Mr. President:

We, the undersigned, are marine scientists united in our concern over the introduction of seismic oil and gas exploration along the U.S. mid-Atlantic and south Atlantic coasts. This activity represents a significant threat to marine life throughout the region.

To identify subsea deposits, operators use arrays of high-volume airguns, which fire approximately every 10–12 seconds, often for weeks or months at a time, with sound almost as powerful as that produced by underwater chemical explosives. Already nine survey applications covering the entirety of the region several times over have been submitted within the past six months, including multiple duplicative efforts in the same areas. In all, the activities contemplated by the Interior Department would result in more than 20 million seismic shots.

Airgun surveys have an enormous environmental footprint. For blue and other endangered great whales, for example, such surveys have been shown to disrupt activities essential to foraging and reproduction over vast ocean areas. Additionally, surveys could increase the risk of calves being separated from their mothers, the effects of which can be lethal, and, over time, cause chronic behavioral and physiological stress, suppressing reproduction and increasing mortality and morbidity. The Interior Department itself has estimated that seismic exploration would disrupt vital marine mammal behavior more than 13 million times over the initial six-to-seven years, and there are good reasons to consider this number a significant underestimate.

The impacts of airguns extend beyond marine mammals to all marine life. Many other marine animals respond to sound, and their ability to hear other animals and acoustic cues in their environment are critical to survival. Seismic surveys have been shown to displace commercial species of fish, with the effect in some fisheries of dramatically depressing catch rates. Airguns can also cause mortality in fish eggs and larvae, induce hearing loss and physiological stress, interfere with adult breeding calls, and degrade anti-predator response: raising concerns about potentially massive impacts on fish populations. In some species of invertebrates, such as scallops, airgun shots and other low-frequency noises have been shown to interfere with larval or embryonic development. And threatened and endangered sea turtles, although almost completely unstudied for their vulnerability to noise impacts, have their most sensitive hearing in the same low frequencies in which most airgun energy is concentrated.

The Interior Department's decision to authorize seismic surveys along the Atlantic coast is based on the premise that these activities would have only a negligible impact on marine species and populations. Our expert assessment is that the Department's premise is not supported by the best available science. On the contrary, the magnitude of the proposed seismic activity is likely to have significant, long-lasting, and widespread impacts on the reproduction and survival of fish and marine mammal populations in the region, including the critically endangered North Atlantic right whale, of which only 500 remain.

Opening the U.S. east coast to seismic airgun exploration poses an unacceptable risk of serious harm to marine life at the species and population levels, the full extent of which will not be understood until long after the harm occurs. Mitigating such impacts requires a much better understanding of cumulative effects, which have not properly been assessed, as well as strict, highly precautionary limits on the amounts of annual and concurrent survey activities, which have not been prescribed. To proceed otherwise is simply not sustainable. Accordingly, we respectfully urge you, Mr. President, to reject the Interior Department's analysis and its decision to introduce seismic oil and gas surveys in the Atlantic.

Sincerely,

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