

Wind Power Development and Pallas's Cat Habitat Conflict in Cailongling, Zhangye, Gansu Province, China

A Detailed Report Based on Conservation Monitoring, Media Coverage, and Official Project Documents
(As of mid-October 2026)

1. Executive Summary

In the Cailongling area of Pingshanhu Mongolian Township, Ganzhou District, Zhangye City, Gansu Province, a 100 MW wind power project is under construction in a region identified by conservation organizations as a high-density core habitat for the Pallas's cat (*Otocolobus manul*, 兔狲), a nationally protected (Class II) species in China. Long-term infrared camera monitoring by the Chinese Felid Conservation Alliance (CFCA, 猫盟) has documented a significant population of this specialized desert carnivore, with densities far exceeding global averages in 2022, followed by a sharp decline coinciding with renewable energy infrastructure development.

The Gansu Heihe Rundian Pingshanhu 100 MW Wind Power Project (甘肃黑河润电平山湖10万千瓦风电项目), developed by Gansu Heihe Rundian New Energy Co., Ltd., received EIA approval in March 2025 and began construction in July 2026. Approximately eight turbine sites overlap with core Pallas's cat activity areas, some within 600 meters of high-frequency records and situated on important movement corridors between denning (bedroom) and foraging (kitchen) habitats. The project's Environmental Impact Assessment (EIA) reported no large terrestrial wildlife or protected species in the area, a claim sharply contradicted by CFCA's multi-year records of 21 mammal species, 113 bird species (including 7 Class I and 28 Class II protected animals), and the Class I protected plant *Nostoc flagelliforme* (发菜).

Official responses have affirmed the project's legal compliance, noting that the site is not within officially designated protected areas or important habitat directories, and that only official data are recognized. Construction has continued despite appeals for re-evaluation, temporary risk controls at overlapping sites, and assessment of ecological impacts. The case highlights broader tensions between China's rapid renewable energy expansion in arid regions and the conservation of fragile desert ecosystems and their specialized fauna.

2. Background: Pallas's Cat and the Northern Zhangye Desert

The Pallas's cat (*Otocolobus manul*), also known as the manul, is a small wild felid adapted to cold, arid steppe and desert environments across Central Asia. In China, it is listed as a national Class II key protected wild animal. While best known from high-altitude plateaus, populations also inhabit the extensive arid deserts of the Hexi Corridor in Gansu.

The northern Zhangye desert, including the Cailongling (彩龙岭) and adjacent Racetrack (赛车场) areas in Pingshanhu Mongolian Township, features wind- and water-eroded hills, soft soil ridges, natural caves, and surrounding semi-shrub flats. These provide essential denning sites and prey (primarily rodents such as gerbils) for Pallas's cats. The area forms part of a connected habitat corridor important for individual movement and genetic exchange, as demonstrated by tracked individuals traveling 40–50 km between sites.

CFCA, in collaboration with the Chinese Academy of Sciences, has conducted systematic camera trapping in the region since around 2021–2022. Early surveys identified one of the highest known densities of Pallas's cats globally.

3. CFCA Monitoring Data and Population Trends

Key findings from infrared camera monitoring (primarily 2022–2025):

- 2022 (May–September, ~20 km² core monitoring area near the Racetrack/Cailongling): 12 identifiable individuals, 351 independent captures. Estimated density ~18 individuals per 100 km² (global average typically 4–6).
- 2023: Decline to approximately 6 identifiable individuals.
- 2024: Only 2 identifiable individuals remaining; independent captures dropped to 5. Relative abundance index fell sharply (from ~3.89 to 0.30 in related metrics).
- 2025 (expanded monitoring to ~50 km², May–September): Only 19 independent captures.
- Continued records into 2025–2026 at specific Cailongling points, including monthly detections through August 2025 at one site and photographic evidence as late as September 2026.

Individual tracking further revealed habitat connectivity. One male (PC-SE2502M) moved at least 50 km between the Racetrack and Cailongling areas (home range >21 km²). Another individual (Desert Traveler No. 1, PC-LZ2402M) migrated ~40 km from Linze County into the area. These movements underscore that the region functions as a continuous habitat rather than isolated patches.

The population crash temporally aligns with the commissioning of earlier wind facilities in the Racetrack area, rodent control campaigns (灭鼠), and severe drought. Academic studies co-authored with the Chinese Academy of Sciences indicate that wind farm presence can alter activity patterns (Pallas's cats become more nocturnal to avoid human disturbance), reduce prey availability, and increase dietary niche overlap with red foxes.

4. Project Details: Gansu Heihe Rundian Pingshanhu 100 MW Wind Power Project

Official project information compiled from government notices, tender documents, and news reports:

Parameter	Details
Project Name	Gansu Heihe Rundian Pingshanhu 100 MW (10万千瓦) Wind Power Project
Developer	Gansu Heihe Rundian New Energy Co., Ltd. (甘肃黑河润电新能源有限公司)
Location	Pingshanhu Mongolian Township, Ganzhou District, Zhangye City, Gansu Province (Cailongling desert hills)
Installed Capacity	100 MW total; 16 turbines × 6.25 MW each
Turbine Specifications (tender)	Rotor diameter ≥220 m, hub height ≥120 m, tip clearance ≥10 m
Supporting Facilities	New 110 kV substation; energy storage 15 MW / 60 MWh (15% of capacity, 4-hour); collector lines
EIA Approval	March 2025 (Zhangye Ecology and Environment Bureau, Ganzhou Branch)
Construction Start	July 16, 2026 (civil works: foundations, collector roads, substation piles)
Progress (as of ~Aug 2026)	~15% complete; targeting full grid connection by December 30, 2026
Expected Annual Output	~198 million kWh (1.98亿 kWh); equivalent to power for ~100,000 Zhangye residents
Environmental Claims (official)	Saves ~60,800 tons standard coal/year; reduces CO ₂ by ~166,200 tons/year; equivalent to planting 1.2 million trees; site on Gobi/low-cover grassland, no basic farmland occupied
Soil & Water Conservation	Approved (June 2025); responsibility area 24.97 ha; Northern Wind-Sand Area Class I standard; compensation fee 349,580 CNY
Turbine Supplier	China Shipbuilding Haizhuang Wind Power Co., Ltd. (中船海装) awarded ~211.2 million CNY contract (2025)
Related Grid	Connects to Pingshanhu 330 kV collection station; short 110 kV outgoing line (~0.67 km) also under separate EIA

The project is part of Zhangye's broader '14th Five-Year Plan' push for million-kilowatt-scale wind and solar bases in the northern desert. Multiple other 100 MW wind projects are also advancing or planned in the Pingshanhu area.

5. Spatial Overlap: Turbine Sites and Habitat

Field surveys by CFCA in September 2026 identified significant spatial conflict:

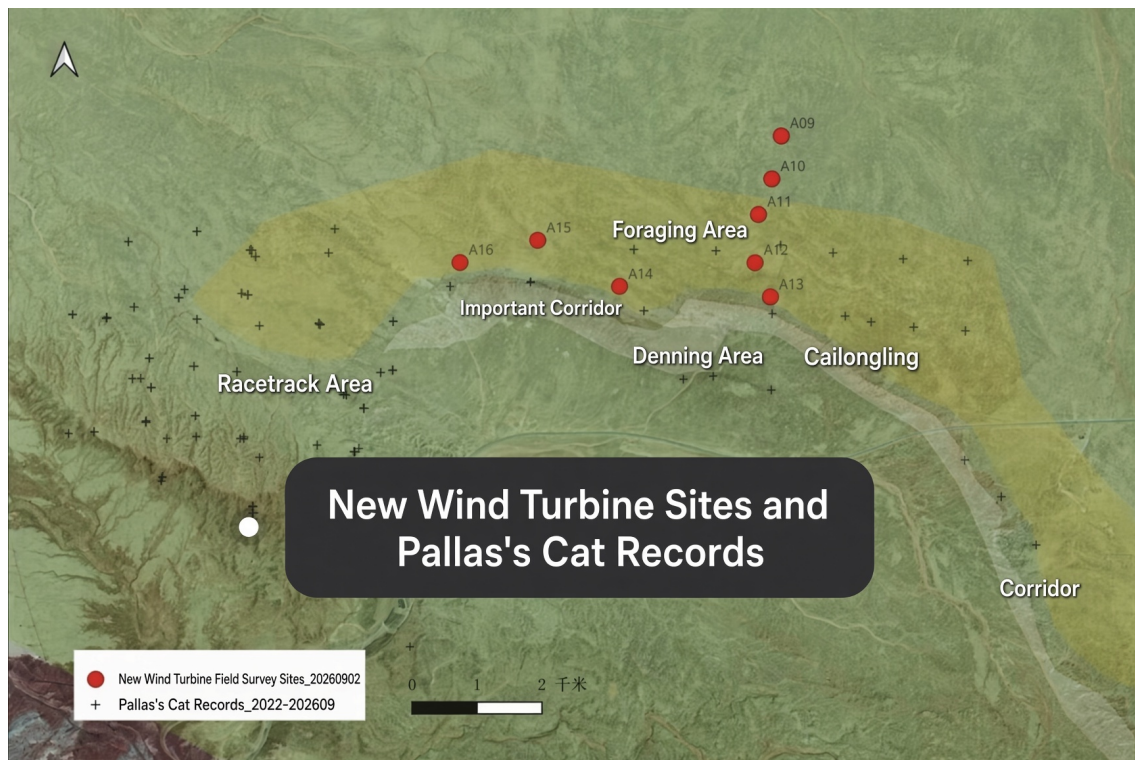


Figure 1. New wind turbine field survey sites (red dots, labeled A09–A16) overlaid on Pallas's cat records (black crosses, 2022–2026) in the Cailongling / Racetrack area. Yellow shading indicates core activity zone. Several turbines (notably A13, A14, A16) lie on the important corridor between denning and foraging areas. (Translated from CFCA map, September 2026 survey.)

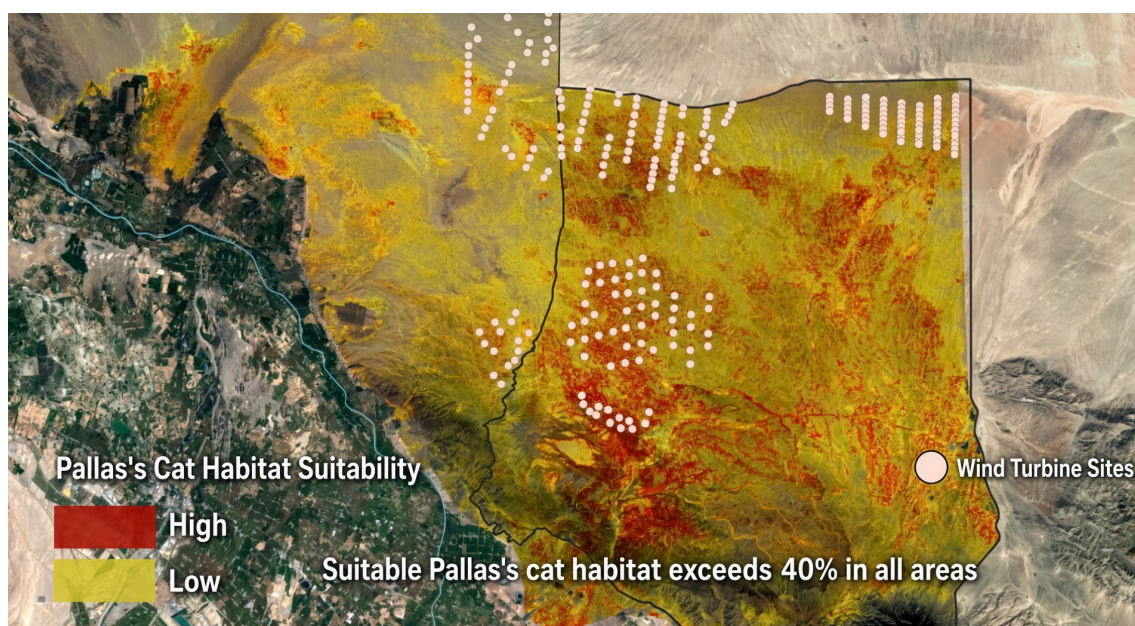


Figure 2. Modeled Pallas's cat habitat suitability across the broader northern Zhangye desert (red = high suitability, yellow = lower). White dots represent existing or planned wind turbine sites. Suitable habitat exceeds 40% of the area within the energy development zone. (Adapted from CFCA / related analyses.)

Eight of the new turbine locations overlap with core Pallas's cat activity. Some are less than 600 m from high-frequency recording sites. Construction roads cut through continuous ridgelines and gullies, fragmenting the habitat. Desert ecosystems recover extremely slowly once natural caves, micro-topography, and prey bases are disturbed.

Wind Power Project EIA Report.pdf

Figure 6: Project Engineering Content Distribution Map

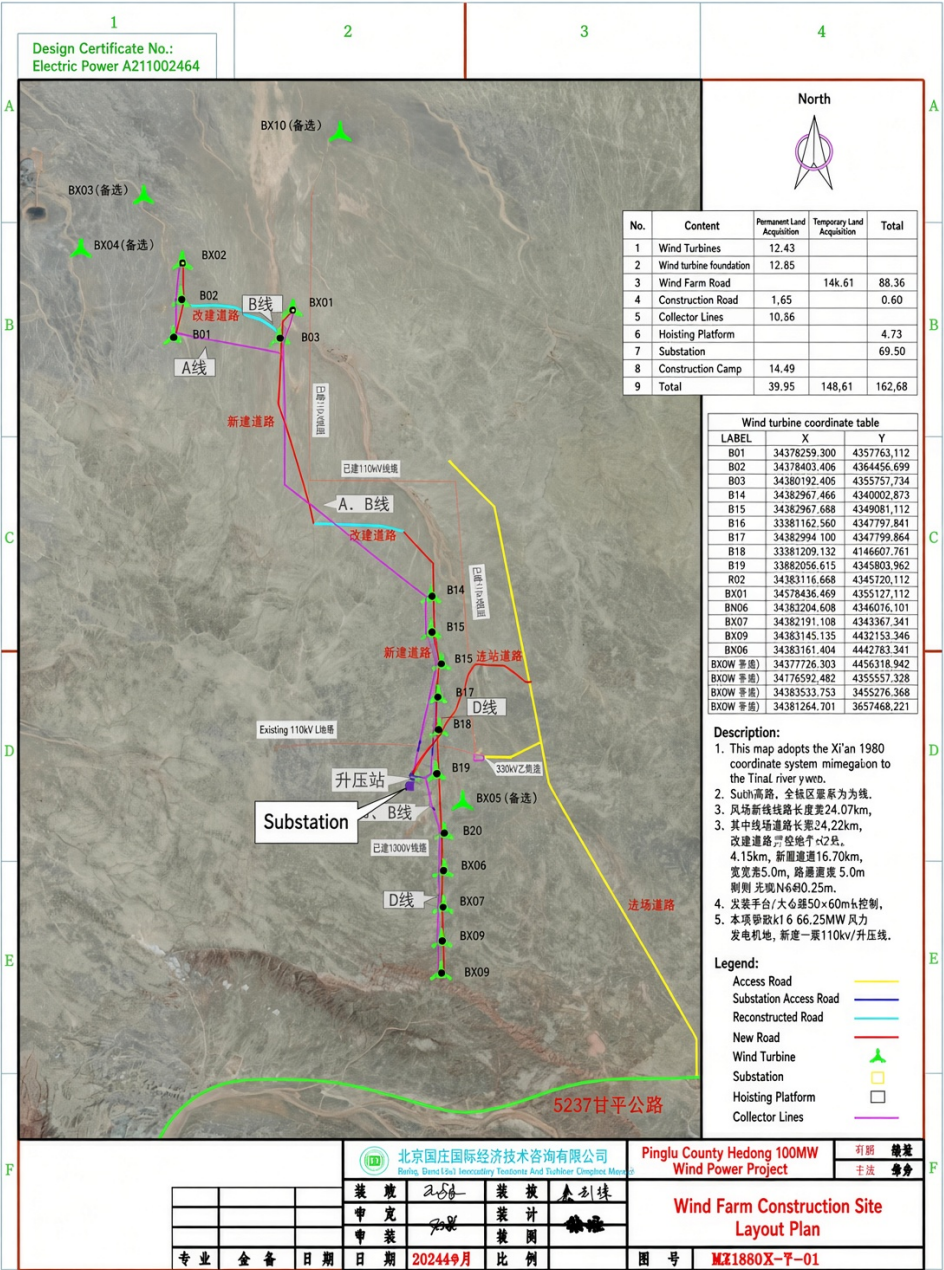


Figure 3. Excerpt from the project's EIA report (Figure 6: Project Engineering Content Distribution Map), showing turbine positions (B01 etc.), access roads (new/reconstructed), substation, collector lines, and construction camp. Coordinates use the Xi'an 1980 system. (Translated version of original Chinese EIA drawing.)

6. Environmental Impact Assessment Controversy

The EIA report (approved March 2025) concluded that the project area has no large terrestrial wild animals, no protected animals, only small rodents such as gray rats and rabbits. Common birds were listed as sparrows, magpies, and crows. Vegetation impacts were described as minimal.

CFCA's multi-year records contradict this baseline:

- 21 mammal species and 113 bird species recorded in the northern Zhangye desert.

- 7 national Class I protected animals (e.g., black stork, steppe eagle, golden eagle, saker falcon, MacQueen's bustard).

- 28 national Class II protected animals, including Pallas's cat, Asian wildcat, goitered gazelle, wolf, red fox, eagle owl, and others.

- National Class I protected plant *Nostoc flagelliforme* (发菜).

Additional issues raised by conservation groups include: (1) some turbine positions appear to have shifted from the originally approved coordinates without clear re-assessment; (2) construction began during the important breeding and growth season (July); and (3) the fragile nature of the desert habitat makes post-construction restoration of caves, corridors, and food webs extremely difficult.

7. Official Responses and Current Status (as of October 2026)

CFCA submitted recommendation letters in early September 2026 (including jointly with Friends of Nature), requesting re-evaluation of the EIA's completeness and accuracy, verification of procedures for any turbine position adjustments, and temporary risk-control measures at sites overlapping important habitat pending assessment.

A discussion meeting was held on 16 September involving the EIA unit, competent authorities, the developer, and CFCA. The developer stated that work stoppage was not possible. Authorities conducted on-site verification on 17–18 September. Subsequent replies via 12345 and government channels (around 10–12 October) affirmed:

- The EIA was prepared and approved in accordance with laws and regulations; no false or major omission is recognized.

- The site is not within officially published terrestrial wildlife important habitats or bird migration corridors (which are largely inside nature reserves).

- Only official data and announcements are recognized; non-official monitoring data from civil society organizations are not adopted.

- Mitigation measures such as concurrent vegetation restoration and ecological compensation funds are already required.

- Confirmed coordinate offsets for some turbines remain within the approved wind farm boundary; further determination of any procedural issues may take additional time.

Construction has continued throughout the review period. As of early October 2026, turbines were being erected and roads built. No stop-work order has been issued.

8. Broader Context and Scientific Perspective

Zhangye is prioritizing large-scale wind and solar development under national and provincial green transition policies. The northern desert is a primary target for million-kilowatt renewable bases. While renewable energy reduces carbon emissions, its footprint in arid ecosystems can cause habitat loss, fragmentation, increased human access (facilitating disturbance or illegal activities), and changes in predator-prey dynamics.

Peer-reviewed research from the region (including a 2025 Biological Conservation paper on wind farm effects on red foxes and Pallas's cats) documents shifts in temporal activity and increased trophic niche overlap. Global literature on wind energy primarily focuses on bird and bat collision; impacts on terrestrial mammals, especially specialized small carnivores, remain under-studied. Desert habitats are particularly vulnerable because recovery times are long and key structural features (caves, ridges) are difficult to recreate.

CFCA and partners have advocated for integrating high-resolution wildlife data into planning, prioritizing avoidance of core habitats, and establishing more robust monitoring and mitigation frameworks for renewable projects in arid zones.

9. Conclusion

The Cailongling case illustrates a concrete conflict between rapid renewable energy deployment and the protection of a high-value, high-density population of a nationally protected species in a fragile desert ecosystem. While the project holds valid approvals and contributes to clean energy goals, the discrepancy between the EIA baseline and long-term independent monitoring raises questions about the adequacy of wildlife surveys and the weight given to non-official data.

Whether the eight overlapping turbine sites will permanently reduce the viability of this core habitat remains to be determined through continued monitoring. The situation underscores the need for more rigorous, transparent ecological baselines, adaptive management, and spatial planning that better reconciles energy transition objectives with biodiversity conservation in China's arid northwest.

10. Principal Sources

CFCA (猫盟) articles and monitoring reports published via Huxiu (虎嗅网), October 2026: "Cailongling: 8 Turbines and a High-Density Pallas's Cat Population" and "In the Pallas's Cat Home of Zhangye, the EIA Says 'There Are No Pallas's Cats Here'."

NetEase and related coverage (October 2026) summarizing CFCA appeals and official replies.

Caixin (财新) special report (March 2025) on the decline of Pallas's cats in the Zhangye desert.

Zhangye Municipal Government and Ecology & Environment Bureau notices: soil & water conservation approval (June 2025); EIA-related public notices for the main project and 110 kV outgoing line; construction progress reports (August 2026).

Tender and award announcements for turbines, EPC, and related works (2025–2026).

Peer-reviewed research: studies on wind farm effects on mesocarnivores in the Hexi Corridor (e.g., Biological Conservation, 2025).

This report is a compilation and English synthesis of publicly available information as of 17 October 2026. It does not constitute legal advice or an official determination of compliance. All figures have been translated for accessibility; original Chinese materials should be consulted for precise technical details.