Department of Environment
Cayman Islands Government

Sister Islands Rock Iguana — Little Cayman Population Survey

2026 Results Summary · *Cyclura nubila caymanensis*

Terrestrial Resources Unit, Department of Environment | Survey dates: *16 – 31 March 2026*|
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Key findings

- The 2026 population is estimated at **3,515 iguanas** (95% CI 2,662 – 4,557) — a second consecutive year at the highest levels recorded, statistically unchanged from 2025 (3,501) and from the 2014 baseline (3,487).
- The estimate is **significantly higher than every survey from 2019–2023**, including roughly a 3.5× increase over the 2022 low of 1,000 — the point immediately before feral cat control began.
- Younger age classes still dominate: **sub-adults rose to 31.9%** (their highest share since 2014) and hatchlings held at 22.9% — both far above pre-cat-control lows — as the strong 2023 and 2025 hatchling cohorts mature.
- Road mortality (2025 sample, n = 126) was **not age-selective**: no age class was killed on roads out of proportion to its share of the population (all binomial tests P > 0.05).

Population size and trend

The 2026 survey estimated **3,515 iguanas** (95% CI 2,662 – 4,557; CV 0.14) — essentially unchanged from 2025 (3,501; two-sample test P = 0.99) and statistically indistinguishable from the 2014 baseline (3,487; P = 0.98). The estimate was significantly higher than 2019 (P = 0.02), 2023 (P = 0.006) and the 2022 low of 1,000 (P < 0.001; a 252% increase). Two consecutive years near 3,500 indicate the population has stabilised at its highest recorded level and that the rebound reported in 2025 has held (Figure 1).

Table 1. Population estimates, Little Cayman SIRI surveys 2014–2026 (distance sampling with availability correction).

Year	Mean	Std. error	CV	95% CI
2014	3,487	757	0.22	2,153 – 5,123
2015	2,915	576	0.20	1,966 – 4,135
2019	1,928	437	0.23	1,127 – 2,865
2022	1,000	257	0.26	550 – 1,578
2023	1,834	372	0.21	1,168 – 2,583
2025	3,501	572	0.16	2,472 – 4,708
2026	**3,515**	**492**	**0.14**	**2,662 – 4,557**

Age-class distribution

In 2026 the population comprised **45.1% adults, 31.9% sub-adults and 22.9% hatchlings** (Table 2; Figure 2). Sub-adults reached their highest share since 2014, significantly above the 2019–2023 period (vs 2022: 8.0%, t = 5.6, P = 0.001) and statistically similar to 2025 (26.1%; P = 0.21) — consistent with the strong 2023 and 2025 hatchling cohorts maturing into sub-adults. Hatchlings eased from the 2025 peak (34.2%) to 22.9% (t = −2.98, P = 0.02) but remained far above pre-control levels (vs 2022: 5.0%, P < 0.001) and similar to the 2014 baseline (21.9%; P = 0.76). The adult share is well below the adult-dominated 2019–2023 years (vs 2022: 87.1%, P < 0.001); this reflects the relative rebalancing toward younger classes, not a decline in adult numbers.

Table 2. Average proportion (± SD) of each age class, Little Cayman SIRI surveys 2014–2026.

Year	Hatchling (%)	Sub-adult (%)	Adult (%)
2014	21.9 ± 4.9	38.7 ± 8.3	39.4 ± 3.4
2015	18.6 ± 10.0	25.1 ± 0.7	56.3 ± 10.8

Year	Hatchling (%)	Sub-adult (%)	Adult (%)
2019	4.5 ± 1.8	6.1 ± 2.9	89.4 ± 4.4
2022	5.0 ± 1.3	8.0 ± 2.8	87.1 ± 3.3
2023	26.0 ± 7.9	8.7 ± 1.6	65.3 ± 8.3
2025	34.2 ± 6.5	26.1 ± 1.9	39.8 ± 4.9
2026	**22.9 ± 3.9**	**31.9 ± 8.0**	**45.1 ± 6.4**

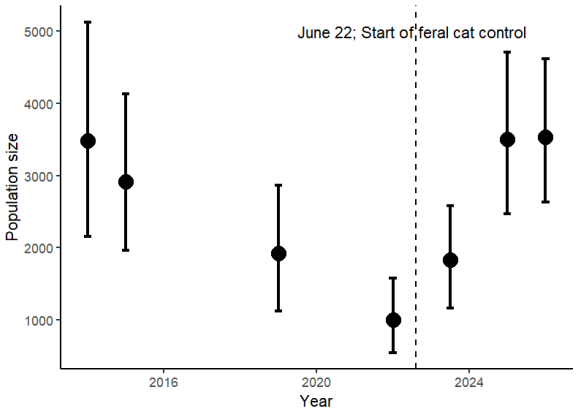

Figure 1. Population estimates 2014–2026 (mean ± 95% CI). Dashed line: June 2022 start of feral cat control.

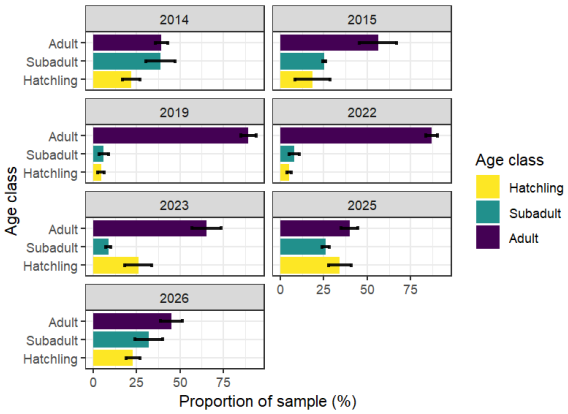

Figure 2. Age-class composition by year (mean proportion ± SD).

Road mortality vs population age structure

This year's summary adds recent roadkill records and compares the age composition of road-killed iguanas with that of the surveyed population. For the 2025 roadkill sample — the largest to date (n = 126) — **no age class was over- or under-represented among road mortalities relative to its share of the population** (binomial tests, all P > 0.05; bootstrapped selectivity indices all overlapped 1.0). Road mortality therefore appears broadly proportional across age classes rather than selectively removing any one group. Roadkill records continue into 2026 with 89 road-deaths as of 21 July 2026 – on track for another record year.

Table 3. Age-class road mortality test, 2025 (binomial: roadkill share vs population share, n = 126).

Age class	Road-killed (n)	Roadkill (%)	Population (%)	P-value	Result
Adult	46	36.5	39.8	0.468	Not selective
Sub-adult	30	23.8	26.1	0.613	Not selective
Hatchling	50	39.7	34.2	0.190	Not selective

Methods in brief

Population size is estimated by distance sampling with a repeated-count availability correction; age-class composition is summarised as the mean proportion of each class across repeat visits. Surveys cover 118 200-m line transects across Little Cayman, each repeated three to four times, now conducted annually in February–March. Roadkill data is collected opportunistically from the Little Cayman community via reports to the Little Cayman National Trust and DoE staff based in Little Cayman. Annual population estimates were compared using two-sample tests on each year's mean and standard error; age-class proportions were compared with two-sample t-tests (n = 4 repeat rounds per year). Road-mortality selectivity was assessed with binomial tests comparing each age class's share of roadkill against its share of the surveyed population. Analyses were run in R (Distance, unmarked). Full field and statistical methods follow the DoE SIRI population assessment protocol (Bodden et al., 2025).

References

1) Bodden, V., Haakonsson J., Oyog, T., Williams, S., Rousseau, A., Ebanks., N. 2025. Population assessment of the Sister Islands Rock Iguana (Cyclura nubila caymanensis) in Little Cayman – March 2025 Survey update. https://doe.ky/wp-content/uploads/2025/05/DoE_SIRI-population-assessment-2025_-Little-Cayman_FINAL.pdf
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3) Fiske, I. J., and R. B. Chandler. 2011. UNMARKED: An R package for fitting hierarchical models in wildlife occurrence and abundance. Journal of Statistical Software 43:1−23. pp.1614-1625.