



Figure S1: Sequential FISH with Y-linked probe set and (AGAT)₈ probe in low elevation (GSD+EE) population of *C. ocellatus*. (a) DAPI stained metaphase spread of male *C. ocellatus*; (b) FISH with Y-linked probe set (Pseudocoloured image) on same metaphase; (c) FISH with (AGAT)₈ microsatellite probe on same metaphase; (d) superimposed image of all layers (DAPI, signals from Y-linked probe set and signals from (AGAT)₈).

Table 1. Custom Y-linked probe set sequences for *Carinascincus ocellatus* GSD and GSD+EE populations and homologs of our markers with publicly available sequences from vertebrates from NCBI BLAST [66].

Locus ID	Sequence	homology	E value
15694756	TGCAGTCATGTGGCCGGTATGCCACATATATGCCAAGGTGAACAAAACGCTG TTGCCTTCCAACCAAAG	<i>Elaphe dione</i> clone ela2 Squam-1 SINE repeat sequence.	2.34 × 10 ⁻⁴
15694756	TGCAGTCATGTGGCCGGTATGCCACATATATGCCAAGGTGAACAAAACGCTG TTGCCTTCCAACCAAAG	<i>Azemiops feae</i> clone AFE-4 SINE, complete sequence	8.17 × 10 ⁻⁴
15705269	TGCAGGACACTGGCAGGGCCAGAGGGTGCCCCAGCATCCCTCACCTGGG	NA	NA
15698539	TGCAGAAAAAGGGTTGTGGCTATCAATTAATTTTTACCTATATAAATTGCT TACCCACTTTG	NA	NA
15701508	TGCAGGTAAGTCTCACAGTGGGTGGCAGAGCTAGAGGGGGACACAGTAGAG AACGTTGGAGAGGGG	NA	NA
15727479	TGCAGCCGCTACAGGGAGACTGAGGGGGGATCATTTCAGCCAGG	NA	NA
15704137	TGCAGGAACTTATGTCAACTCTACAGGAAATGGAAGGCGAGACCACAGTT GATTGG	NA	NA
15694656	TGCAGCTGTTACTGTTGTGCAGGGACTCCAGGCACCTCAGCTGTTTAGTGTGA TCTGAGGCAGGTCTC	NA	NA
15698519	TGCAGTTATGCAGGAAGCAGCCATTCTGTGTCTGGCTCTGGTTCACCAGGC CCACTTTGTCTGCACT	NA	NA
15704111	TGCAGCATTTCTGAGCCCAGCTCTGGGCGTGCGCACTGGGGACAATGAACGC GCCAGTGCTGAGTGCA	NA	NA
15712147	TGCAGCAAAGCCTCAAACCTGTGCTGGATATAGCGCAAGCGG	NA	NA
15694951	TGCAGGCTGCTCTGGAAATGGCTCTTCTCGGTGTGCAGAGCTCCTGTG	NA	NA
15706148	TGCAGAAAGGGTGAACAGTTCCTTTATCCATTGAGT	NA	NA
15694660	TGCAGTTCCTTCTCCCCATTGCTGAAGATCAAGGGATGCTCTGTAGCATCAT CCCATGCAGCACAGAG	NA	NA
15694518	TGCAGCTTCAAATCTCCAGGCCACTTGGCCTAGTTTTTTTAAACAGCTTCCAGC TGCATCTAAAAGGGGA	NA	NA
15694646	TGCAGCTCAAGAACTCTGCCAGTTTTCCCCCTTAAACAGTGCGGTCTGAGC ATAGTTTCCCCTTTAG	NA	NA
15694818	TGCAGTTTTGGACTGTTGCGAGGAGGGGTTTACAATAGTGAAGAACTTCT GCTATTGTAAATTGGCT	NA	NA
15700798	TGCAGGACTTAAAAGCTGCATATGAAGTGTGCATCTTAGGAAGTAAATTTG CTGAACCTCAGCAGGG	NA	NA
15704112	TGCAGCCAAGGCTGTAGCCATGAGGTGGGGGAGGGACTTCGTCCTAGTCCCC CCTCCATGTAGATTCC	NA	NA
15725981	TGCAGGGAGGGAACAGGGATTGGGCTGCAATCCTGTTGTAAGAGAGCACTA TGAACACAATCCTAAG	NA	NA
15694991	TGCAGTACTTTCCTGGAAGAAGCCCTATGTCTAAGTGCATAGT	NA	NA

15694717	TGCAGGGTTTGGCTCTACTGGGGTGAATGGCAAGTGGGGCTCTAGAGTGATG AAAGGAAGTTCTTTGTA	NA	NA
15694757	TGCAGTCCAGATGAAAGCTGGGCAGGCAATGGAAGAGCCTTATCCTCTAGG CCAGGTG	NA	NA
15694779	TGCAGTGACCAGCAGTGGCGTAGCTAGATGAGGGTGCAAAGCACTGTTTTGC AGGAAACTTCACCGCAG	NA	NA
15694858	TGCAGATCTAAAAACACCTAACCTTAAAGACGGTCTTTCTAATTTAGCCACAT CGG	NA	NA
15694872	TGCAGCAATCTAGGAACTCTGTTAAGAACGATTGGCAGCGTG	NA	NA
15694881	TGCAGCAGCCATTGTAATTTGAATGTGCGCCGTCCGGATTACATAGCGCGCA TG	NA	NA
15694946	TGCAGGCCTCCCAGGATCTGGAGCAGGCATACTAGCAAGAGGAATTTCTGCC GG	NA	NA
15698495	TGCAGGTATATCTCATTAAAAATGCCAGCCATAATATTGATTGTATGCCTGT CAGTCAAATGAGTAAG	NA	NA
15701619	TGCAGGTGCACGAAGTCCTTTGGGGAGAGTCATTATTAGTATTGAATGACT GGATTGACCTTCCACA	NA	NA
15704127	TGCAGCGTGTCAACCCCTCTGGCGCGTCACCCTACCCGTGCCAGTGGAGA GGACTGCTCCTCAACTG	NA	NA
15717728	TGCAGGGCTTGGGCTGCAATCCTGTGTAAGAGAGCACTATGAACACAATCC TAAG	NA	NA