**SUPPLEMENTARY MATERIAL S1.** Diagnostic sites of *cox2* sequence alignments from Iberian *Picnakeria* species.

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|  | 42 | 45 | 72 | 75 | 78 | 108 | 110 | 114 | 129 | 136 | 141 | 146 | 147 | 163 | 168 | 192 | 198 | 201 | 210 | 211 |
| *P. recondita* PV000025 | T | A | T | T | C | T | A | A | C | G | T | A | C | C | T | T | A | T | A | A |
| *P. recondita* PV000024 | T | A | T | T | C | T | A | A | C | G | T | A | T | C | T | T | A | T | A | A |
| *P. recondita* PV000001 | T | A | T | T | C | T | A | A | C | G | T | A | T | C | T | T | A | T | A | A |
| *P. recondita* PV000002 | T | A | T | T | C | T | A | A | C | G | T | A | T | C | T | T | A | T | A | A |
| *P. recondita* PV000028 | T | A | T | T | C | T | A | A | C | G | T | A | T | C | T | T | A | T | A | A |
| *P. recondita* PV000027 | T | A | T | T | C | T | A | A | C | G | T | A | T | C | T | T | A | T | A | A |
| *P. lucianae* AF241445 | A | C | T | C | T | C | A | A | T | A | T | A | T | C | A | C | T | A | T | T |
| *P. lelongi* AF241449 | A | T | C | T | T | C | C | T | T | A | C | T | T | T | A | A | T | A | A | A |
| *P. masettii* AF241453 | A | T | C | T | T | C | C | T | T | A | C | T | T | T | A | A | T | A | A | A |
| *P. barbarae* AF241448 | A | T | T | T | T | C | C | A | T | A | A | T | T | T | A | C | T | A | A | A |
| *P. hispánica* AF241460 | A | T | T | T | T | C | C | A | T | A | C | T | T | T | A | C | T | A | A | A |
| *P. originis* EF507840 | A | T | T | T | T | C | C | A | T | A | C | T | T | T | A | C | T | A | A | A |

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|  | 216 | 222 | 231 | 240 | 241 | 247 | 249 | 250 | 255 | 256 | 261 | 279 | 288 | 291 | 297 | 300 | 303 | 339 | 343 | 363 | 369 |
| *P. recondita* PV000025 | A | C | T | A | T | T | G | T | T | T | A | C | A | T | A | T | A | T | A | T | T |
| *P. recondita* PV000024 | A | C | T | A | T | T | G | T | T | T | A | C | A | T | A | T | A | T | A | T | T |
| *P. recondita* PV000001 | A | C | T | A | T | T | G | T | T | T | A | C | A | T | A | T | A | T | A | T | T |
| *P. recondita* PV000002 | A | C | T | A | T | T | G | T | T | T | A | C | A | T | A | T | A | T | A | T | T |
| *P. recondita* PV000028 | A | C | T | A | T | T | G | T | T | T | A | C | A | T | A | T | A | T | A | T | T |
| *P. recondita* PV000027 | A | C | T | A | T | T | A | T | T | T | A | C | A | T | A | T | A | T | A | T | T |
| *P. lucianae* AF241445 | T | T | A | T | C | C | A | C | C | T | A | T | C | A | T | A | T | C | A | C | C |
| *P. lelongi* AF241449 | T | T | A | C | C | T | A | T | T | C | A | T | C | A | A | A | C | T | G | T | T |
| *P. masettii* AF241453 | T | T | A | C | C | T | A | T | T | C | A | T | C | A | A | A | C | T | G | T | T |
| *P. barbarae* AF241448 | T | T | A | C | C | C | A | T | C | C | A | T | T | A | A | A | T | T | G | T | T |
| *P. hispánica* AF241460 | T | T | A | C | A | T | A | T | C | C | G | T | C | A | A | A | T | T | G | T | T |
| *P. originis* EF507840 | T | T | A | C | C | T | A | T | C | C | A | T | C | A | A | A | T | T | G | T | T |

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|  | 379 | 380 | 381 | 393 | 400 | 408 | 417 | 421 | 423 | 424 | 426 | 429 | 459 | 462 | 468 | 471 | 474 | 487 | 489 |
| *P. recondita* PV000025 | - | - | - | T | T | A | A | G | T | A | A | T | A | T | C | A | T | T | A |
| *P. recondita* PV000024 | A | A | T | T | T | A | A | G | T | A | A | T | A | T | C | A | T | T | A |
| *P. recondita* PV000001 | A | A | T | T | T | A | A | G | T | A | A | T | A | T | C | A | T | T | A |
| *P. recondita* PV000002 | A | A | T | T | T | A | A | G | T | A | A | T | A | T | C | A | T | T | A |
| *P. recondita* PV000028 | A | A | T | T | T | A | A | G | T | A | A | T | A | T | C | A | T | T | A |
| *P. recondita* PV000027 | A | A | T | T | T | A | A | A | T | A | A | T | A | T | C | A | T | T | A |
| *P. lucianae* AF241445 | A | A | T | T | T | T | A | G | A | T | A | T | A | A | T | C | C | C | T |
| *P. lelongi* AF241449 | G | A | G | C | C | T | A | G | A | T | G | T | G | A | T | A | T | C | T |
| *P. masettii* AF241453 | G | A | G | C | C | T | A | G | A | T | G | T | G | A | T | A | T | C | T |
| *P. barbarae* AF241448 | G | A | G | C | A | T | T | G | A | T | A | T | G | A | T | A | T | C | T |
| *P. hispánica* AF241460 | G | A | G | C | C | T | A | G | A | T | A | C | G | A | T | A | T | C | T |
| *P. originis* EF507840 | G | A | G | C | C | T | A | G | A | T | A | C | G | A | T | A | T | C | T |

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|  | 492 | 495 | 516 | 525 | 534 | 543 | 550 | 558 | 565 | 570 | 582 | 594 | 597 | 606 | 612 | 625 | 627 | 632 | 633 |
| *P. recondita* PV000025 | A | A | A | A | C | T | T | C | T | T | T | T | T | T | T | A | T | G | A |
| *P. recondita* PV000024 | A | A | A | A | C | T | T | C | T | T | T | C | T | T | T | A | T | G | A |
| *P. recondita* PV000001 | A | A | A | A | C | T | T | C | T | T | T | C | T | T | T | A | T | G | A |
| *P. recondita* PV000002 | A | A | A | A | C | T | T | C | T | T | T | C | T | T | T | A | T | G | A |
| *P. recondita* PV000028 | A | A | A | A | C | T | T | C | T | T | T | C | T | T | T | A | T | G | A |
| *P. recondita* PV000027 | A | A | A | A | C | T | T | C | T | T | T | C | T | T | T | A | T | G | A |
| *P. lucianae* AF241445 | T | A | C | T | T | A | A | A | C | T | T | T | A | C | T | G | A | G | T |
| *P. lelongi* AF241449 | C | T | A | T | T | A | A | T | C | T | T | T | A | T | T | G | A | G | T |
| *P. masettii* AF241453 | C | T | A | T | T | A | A | T | C | T | T | T | A | T | T | G | A | G | T |
| *P. barbarae* AF241448 | C | T | A | T | T | A | A | T | C | T | T | T | A | T | C | G | A | G | T |
| *P. hispánica* AF241460 | C | T | A | T | T | A | A | T | C | T | T | T | A | T | T | G | A | A | T |
| *P. originis* EF507840 | C | T | A | T | T | A | A | T | C | C | G | T | A | T | T | G | A | G | T |