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Permanent Genetic Resources added to Molecular Ecology Resources Database 1 October 2011 – 30 November 2011

Molecular Ecology Resources Primer Development Consortium¹, ALUANA G. ABREU², A. ALBAINA³, TILMAN J. ALPERMANN^{4,5}, VANESSA E. APKENAS⁶, S. BANKHEAD-DRONNET⁷, SARA BERGEK⁸, MICHAEL L. BERUMEN^{9,10}, CHANG-HUNG CHO¹¹, JEAN CLOBERT¹², AURÉLIE COULON¹³, D. DE FERAUDY⁷, A. ESTONBA³, THOMAS HANKELN¹⁴, AXEL HOCHKIRCH¹⁵, TSAI-WEN HSU¹¹, TSURNG-JUHN HUANG¹¹, X. IRIGOEN¹⁶, M. IRIONDO³, KATHLEEN M. KAY⁶, TIM KINITZ¹⁵, LINDA KOTHERA¹⁷, MAXIME LE HÉNANFF^{18,19}, F. LIEUTIER⁷, OLIVIER LOURDAIS¹⁸, CAMILA M. T. MACRINI²⁰, C. MANZANO³, C. MARTIN⁷, VERONICA R. F. MORRIS^{21,22}, GERRIT NANNINGA⁹, M. A. PARDO²³, JÖRG PLIESKE²⁴, S. POINTEAU⁷, TORE PRESTEGAARD²⁵, MARKUS QUACK¹⁵, MURIELLE RICHARD²⁶, HARRY M. SAVAGE¹⁷, KAISER D. SCHWARCZ^{20,2}, JESSICA SHADE²¹, ELLEN L. SIMMS²¹, VERA N. SOLFERINI²⁰, VIRGINIE M. STEVENS¹², MICHAEL VEITH¹⁵, MEI-JUAN WEN¹¹, FLORIAN WICKER⁵, JENNIFER M. YOST⁶, and I. ZARRAONAINDIA³

¹Molecular Ecology Resources Editorial Office, 6270 University Blvd, Vancouver, BC V6T1Z4, Canada

²APTA Pólo Centro2Sul, Rodovia SP 127, km30, CP28, Piracicaba, SP 134002970, Brazil

³Laboratory of Genetics, Department of Genetics, Physical Anthropology and Animal Physiology, Basque Country University (UPV / EHU), Leioa 48940, Spain

⁴LOEWE Biodiversity and Climate Research Centre (BiK-F), Tropical Marine Ecosystems Group, Senckenbergenlage 25, 60325 Frankfurt a. M., Germany

⁵Senckenberg Research Institute and Natural History Museum, Ichthyology Section, Senckenbergenlage 25, 60325 Frankfurt a. M., Germany

⁶Department of Ecology and Evolutionary Biology, University of California Santa Cruz, 1156 High Street, Santa Cruz, CA 95064, USA

⁷UPRESEA1207, Laboratoire de Biologie des Ligneux et des Grandes Cultures, Université d'Orléans, Rue de Chartres, BP 6759, FR-45067 Orléans Cedex 2, France

⁸Department of Aquatic Resources, Institute of Coastal Research, Swedish University of Agricultural Sciences, 74242 Öregrund, Sweden

⁹Red Sea Research Center, King Abdullah University of Science and Technology, Thuwal 23955-6900, Saudi Arabia

¹⁰Department of Biology, Woods Hole Oceanographic Institution, Woods Hole, 02543, USA

¹¹Research Center for Biodiversity and Graduate Institute of Ecology and Evolutionary Biology, China Medical University, Taichung 404, Taiwan

¹²CNRSUSR2936, Station d'Ecologie Expérimentale du CNRS, 09200 Moulis, France

¹³MNHN-CNRS-UPMCUMR 7204 Département Ecologie et Gestion de la Biodiversité, 4 avenue du Petit Château, 91800 Brunoy, France

¹⁴GENterprise Genomics, J.-J.-Becherweg 30a, 55128 Mainz, Germany

¹⁵Department of Biogeography, Trier University, 54286 Trier, Germany

¹⁶AZTI-Tecnalia, Marine Research Division, Herrera Kaia Portualde, z/g 20110, Pasaia (Gipuzkoa), Spain

¹⁷Division of Vector-Borne Diseases, Centers for Disease Control and Prevention, 3150 Rampart Road, Fort Collins, CO80521, USA

¹⁸CNRS, Centre d'Études Biologiques de Chizé, UPR1934, 79360 Villiers-en-Bois, France

¹⁹Université de Poitiers, 40 avenue du Recteur Pineau, 86022 Poitiers, France

²⁰Departamento de Genética, Evolução e Bioagentes, Universidade de Campinas, Cidade Universitária Zeferino Vaz, Campinas, SP13083297, Brazil

²¹Department of Integrative Biology, University of California Berkeley, 3060 Valley Life Sciences Bldg #3140, Berkeley, CA94720, USA

²²Department of Environmental Science, Policy, and Management, University of California Berkeley, 137 Mulford Hall #3114, Berkeley, CA94720USA

²³AZTI-Tecnalia, Food Research Unit, AZTI-Tecnalia, Parque Tecnológico de Bizkaia, Astondo Bidea- Edificio 609- 48160, Derio, Spain

²⁴TraitGenetics, Am Schwabeplan 1b, 06466 Stadt Seeland OT Gatersleben, Germany

²⁵Department of Aquatic Resources, Institute of Freshwater Research, Swedish University of Agricultural Sciences, Drottningholm 17893, Sweden

²⁶CNRS-UPMC-ENS, UMR7625, Laboratoire Ecologie and Evolution, 7Quai St Bernard, F-75005, Paris, France

Abstract

This article documents the addition of 139 microsatellite marker loci and 90 pairs of single-nucleotide polymorphism sequencing primers to the Molecular Ecology Resources Database. Loci were developed for the following species: *Aglaoctenus lagotis*, *Costus pulverulentus*, *Costus scaber*, *Culex pipiens*, *Dascyllus marginatus*, *Lupinus nanus* Benth, *Phloeomyzus passerini*, *Podarcis muralis*, *Rhododendron rubropilosum* Hayata var. *taiwanalpinum* and *Zoarces viviparus*. These loci were cross-tested on the following species: *Culex quinquefasciatus*, *Rhododendron pseudochrysanthum* Hay. ssp. *mori* (Hay.) Yamazaki and *R. pseudochrysanthum* Hayata. This article also documents the addition of 48 sequencing primer pairs and 90 allele-specific primers for *Engraulis encrasicolus*.

This article documents the addition of 139 microsatellite marker loci and 90 single-nucleotide polymorphism (SNP) genotyping primers to the Molecular Ecology Resources Database. Table 1 contains information on the focal species, the number of loci developed, any other species the loci were tested in and the accession numbers for the loci in both the Molecular Ecology Resources Database and GenBank. The authors responsible for each set of loci are listed in the final column. Table 2 presents information on SNP genotyping resources added to the MER database and presents data on the focal species, the number of sequencing primer pairs, the number of SNPs genotyped, other species the loci were tested in and the number of SNP genotyping assays, which include a primer pair for each SNP amplification and reporters/probes for each allele detection. The MER database and GenBank accession numbers and the authors responsible are also listed. A full description of the development protocol for the loci presented here can be found on the Molecular Ecology Resources Database (<http://tomato.biol.trinity.edu/>).

Table 1

Information on the focal species, the number of loci developed, any other species the loci were tested in and the accession numbers for the loci in both the Molecular Ecology Resources Database and GenBank. The authors responsible for each set of loci are listed in the final column.

Species	No. primers developed	Other species tested	MER database no.	GenBank accession no.	Authors
<i>Aglaoctenus lagotis</i>	8	n/a	47472-47479	JF436856-JF436863	Macrini, Camila M. T.; Schwartz, Kaiser D.; Abreu, Alana G.; Solferini, Véra N.
<i>Costus scaber</i> and <i>Costus pulvrellensis</i>	30	n/a	47498-47527	JK216161, JK216242, JK216253, JK216305, JK216330, JK216336, JK216382, JK216440, JK216441, JK216473, JK216680, JK216871, JK216985, JK217056, JK217202	Kay, Kathleen M.; Aphenaas, Vanessa E.; Yost, Jennifer M.
<i>Culex pipiens</i>	11	<i>Culex quinquefasciatus</i>	47270-47291	JN571581-JN571602	Kothera, Linda; Savage, Harry M.
<i>Dasyphyllus marginatus</i>	27	n/a	47636-47662	JN816405-JN816423, JN816425-JN816429, JN816431-JN816433	Alpermann, Tilman J.; Wicker, Florian; Nanninga, Gerrit; Phieske, Jörg; Brennen, Michael L.
<i>Lupinus nanus</i> Benth	15	n/a	47223-47237	GU232510-GU232515, GU232517, GU232518, GU232521, GU232522, GU232524-GU232527, GU232529	Morris, Veronica R. F.; Shade, Jessica; Simms, Ellen L.
<i>Phloeomyzus passerini</i>	12	n/a	47624-47635	JN230544-JN230555	Poinneau, S.; Martin, C.; De Feraudy, D.; Lieutier, F.; Bankhead-Dronnet, S.
<i>Podarcis muralis</i>	14	n/a	47409-47422	JN634493-JN634506	Richard, Murielle; Stevens, Virginie M.; Le Hénaff, Maxime; Coulon, Aurélie; Lourdais, Olivier; Clobett, Jean
<i>Rhododendron</i> <i>rubropilosum</i> Hayata var. <i>taiwanalpinum</i>	12	<i>Rhododendron</i> <i>pseudochrysanthum</i> Hay. ssp. <i>mori</i> (Hay.) Yamazaki, R. <i>pseudochrysanthum</i> Hayata	47481-47492	HQ700914-HQ700925	Huang, Tsung- Juhn; Wen, Mei- Juan; Hsu, Tsai- Wen; Cho, Chang- Hung
<i>Zoarcis viviparus</i>	10	n/a	47238-47247	JN033776-JN033781, JN033783, JN033784, JN033786, JN033787	Kinitz, Tim; Quack, Markus; Hochkirch, Axel; Hankein, Thomas; Bergek,

Species	No. primers developed	Other species tested	MER database no.	GenBank accession no.
Authors	Star; Pelegaud, Dre, Velt, Mwalel			
Authors	Star; Pelegaud, Dre, Velt, Mwalel			

Table 2

Information on the focal species, the sequencing primer pairs developed, the number of single-nucleotide polymorphisms genotyped and any other species the loci were tested in. The next columns contain the number of SNP genotyping assays developed, and the Molecular Ecology Resources database and GenBank accession numbers, respectively. The authors responsible for each set of loci are listed in the final column.

Species	No. of SNP amplification primer pairs	No. of SNPs genotyped	Other species tested	No. of SNP genotyping assays	Target gene(s)	MER database numbers	GenBank accession no	Authors
<i>Engraulis encrasicolus</i>	41	90	n/a	90	See ms for details	47423, 47424, 47429–47433, 47436–47440, 47442, 47443, 47445, 47447–47451, 47454–47460, 47462, 47466, 47468–47471, 47741–47769, 47776, 47778, 47780, 47783, 47789–47812, 47814	AP009137, AY486342, 1–AY486345, 1–AY486346, 1–AY486347, 1, EU224151–EU224152, 1, EU264033, 1–EU264034, JF726335–JF726383, JF747354–JF747362	Zarraonaindia, I.; Albaina, A.; Iriondo, M.; Manzano, C.; Pardo, M. A.; Irigoién, X.; Estomba, A.