Permanent genetic resources added to molecular ecology resources database 1 august 2011-30 september 2011

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PERMANENT GENETIC RESOURCES NOTE

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Abstract

This article documents the addition of 299 microsatellite marker loci and nine pairs of single-nucleotide polymorphism (SNP) EPIC primers to the Molecular Ecology Resources (MER) Database. Loci were developed for the following species: *Alosa pseudoharengus, Alosa aestivalis, Aphis spiraecola, Argopecten purpuratus, Coreoleuciscus splendidus, Garra gotyla, Hippodamia convergens, Linnaea borealis, Menippe mercenaria, Menippe adina, Parus major, Pinus densiflora, Portunus trituberculatus, Procontarinia mangiferae, Rhynchophorus ferrugineus, Schizothorax richardsonii, Scophthalmus rhombus, Tetraponera aethiops, Thaumetopoea pityocampa, Tuta absoluta* and *Ugni molinae*. These loci were cross-tested on the following species: *Barilius bendelisis, Chiromantes haematocheir, Eriocheir sinensis, Eucalyptus camaldulensis, Eucalyptus cladocalix, Eucalyptus globulus, Garra litaninsis vishwanath, Garra para lissorhynchus, Guindilla trinervis, Hemigrapsus sanguineus, Luma chequen. Guayaba, Myrceugenia colchagüensis, Myrceugenia correifolia, Myrceugenia exsucca, Parasesarma plicatum, Parus major, Portunus pelagicus, Psidium guayaba, Schizothorax richardsonii, Scophthalmus maximus, Tetraponera latifrons, Thaumetopoea bonjeani, Thaumetopoea ispartensis, Thaumetopoea libanotica, Thaumetopoea pinivora, Thaumetopoea pityocampa ena clade, Thaumetopoea solitaria, Thaumetopoea wilkinsoni* and *Tor putitora*. This article also documents the addition of nine EPIC primer pairs for *Euphaea decorata, Euphaea formosa, Euphaea ornata* and *Euphaea yayeyamana*.

This article documents the addition of 299 microsatellite marker loci and nine pairs of 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 observed number of SNPs, other species the loci were tested in, and the number of allele specific primers or probes. The MER database and GenBank accession numbers and the authors responsible are also listed. Table 3 outlines additional permanent genetic resources that have been uploaded to the MER program wiki (http://tomato.biol.trinity.edu/programs/). A full description of the development protocol for the loci presented in Tables 1 & 2 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 (MER) 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
Alosa pseudoharengus, Alosa aestivalis	18	n/a	47166–47201	JN383992–JN384009	Labbe, Ellen M.; Argo, Emily E.; Schultz, Thomas F.; Palkovacs, Eric P.;Willis, Theodore V.

Correspondence: Molecular Ecology Resources Primer Development Consortium, E-mail: editorial.office@molecol.com

Table 1 (Continued)

Species	No. primers developed	Other species tested	MER database no.	GenBank accession no.	Authors
Aphis spiraecola	9	n/a	47081–47089	HM854169–HM854171, JN214382–JN214384, JN214386–JN214388	Mezghani-Khemakhem, M.; Kharrat, I.; Casse, N.; Bouktila, D.; Makni, M.; Makni H.
Argopecten purpuratus	8	n/a	47373–47380	JN674552–JN674559	Haye, P. A.; Segovia, N. I.; Gallardo-Escárate, C.
Coreoleuciscus splendidus	13	n/a	47143–47155	JF972368–JF972380	Kwan, Ye-Seul; Lee, Wan-Ok; Won, Yong-Jin
Garra gotyla	28	*G. para lissorhynchus*, *G. litaninsis vishwanath*, *Barilius bendelisis*, *Schizothorax richardsonii*, *Tor putitora*	47345–47372	HQ288484, HQ288485, HQ288489–HQ288499, HQ288501, HQ288502, HQ288504, HQ288506, HQ288507, HQ288510, HQ288511, HQ288517, HQ288526, HQ288661, JF268657, JF268662, JF268664, JF268665	Matura, Rakesh; Chandra, Suresh; Barat, Ashoktaru; Pande, Veena; Mahanta, Prabin Chandra
Hippodamia convergens	12	n/a	47397–47408	JN565049–JN565060	Michel, Andy P.; Zhang, W.; Gardiner, Mary M.
Linnaea borealis	10	n/a	47156–47165	JN674504–JN674512	A'Hara, S. W.; Scobie, A. R.; Broome, A.; Long, D.; Cottrell, J. E.
Menippe mercenaria, *M. adina*	22	n/a	46925–46968	GU970048–GU970069	Seyoum, Seifu; Bert, Theresa M.; Puchulutegui, Cecilia; Davis, Michelle C.; Muriel-Cunha, Janice; Crawford, Charles R.; Mcmillen-Jackson, Anne L.; Barbieri, Luiz
Parus major	15	n/a	47128–47142	HQ263118–HQ263132	Saladin, Verena; Richner, Heinz
Pinus densiflora	16	n/a	47381–47396	JN634766–JN634781	Lee, Kyung Mi; Kim, Yong Yul; Kim, Ki Hwan; Jeon, Ji Hyun; Cho, Kyung Jin
Portunus trituberculatus	11	*P. pelagicus*, *Eriocheir sinensis*, *Hemigrapsus sanguineus*, *Chiromantes haematocheir*, *Parasesarma plicatum*	46914–46924	JF505633–JF505643	Li, H.; Ye, N. H.; Liu, Y. G.; Zhang, Y. X.; Liu, S. S.

Table 1 (Continued)

Species	No. primers developed	Other species tested	MER database no.	GenBank accession no.	Authors
Procontarinia mangiferae	11	n/a	47057–47067	JF746879–JF746889	Amouroux, P.; Normand, F.; Nibouche, S.; Delatte H.
Rhynchophorus ferrugineus	15	n/a	47113–47127	JN374673–JN374687	Capdevielle-Dulac, C.; El-Mergawy, R. A. A. M.; Avand-Faghih, A.; Rochat, D.; Silvain, J.-F.
Schizothorax richardsonii	34	n/a	47292–47325	HM591233–HM591236, HM591238, HM591240–HM591242, HM591244, HM591246–HM591256, HM591258, HM591260, HM591264–HM591266, HM591270–HM591272, HM591276, HM591278, HM591279, HM591281, HM591283	Barat, Ashoktaru; Chandra, Suresh; Matura, Rakesh
Scophthalmus rhombus	15	*S. maximus*	47090–47104	JF900344–JF900358	Vandamme, S. G.; Maes, G. E.; Van Houdt, J. K. J.; Hellemans, B.; Robbens, J.; Parmentier, K.; Volckaert, F. A. M.
Tetraponera aethiops	14	*T. latifrons*	46982–47009	JN190035–JN190048	Piatscheck, F.; Djieto-Lordon, C.; Garcia, M.; Sauve, M.; Peccoud, J.; Dubois, M. P.; McKey, D.; Blatrix, R.
Thaumetopoea pityocampa	13	*T. p. ena clade, T. wilkinsoni, T. pinivora, T. libanotica, T. bonjeani, T. ispartensis, T. solitaria*	46969–46981	JN400258–JN400270	Burban, C.; Magnoux, E.; Rousselet, J.; Kerdelhué, C.
Tuta absoluta	19	n/a	47326–47344	JN680765–JN680783	Guillemaud, Thomas; Legoff, Isabelle; Blin, Aurélie; Tabone, Elisabeth; Desneux, Nicolas; Malausa, Thibaut

Table 1 (Continued)

Species	No. primers developed	Other species tested	MER database no.	GenBank accession no.	Authors
Ugni molinae	16	*Myrceugenia correifolia*, *M. colchagüensis*, *M. exsucca*, *Guindilla trinervis*, *Luma chequen*. *Guayaba*, *Psidium guayaba*, *Eucalyptus cladocalix*, *E. camaldulensis*, *E. globulus*	46809–46824	HQ917086–HQ917101	Ramos, R.; Ravest, G.; Méndez, M.A.; Hinrichsen, P.

Table 2 Information on the focal species, the sequencing primer pairs developed, the number of single-nucleotide polymorphisms (SNPs) observed and any other species the loci were tested in. The next columns contain the number of allele specific primers and probes developed and the Molecular Ecology Resources (MER) database and GenBank accession numbers, respectively. The authors responsible for each set of loci are listed in the final column

Species	No. primer pairs	No. SNPs in sequence	Other species tested	No. Allele specific primers/ probe	Target gene(s)	MER database numbers	Genbank Accession no.	Authors
Euphaea formosa, *E. yayeyamana*, *E. ornata*, *E. decorata*	9	See Table 2 in text for details.	n/a	n/a	See Table 1 in text for details.	47048–47056	JN246927–JN247002, JN389796–JN390424	Lee, Yat-Hung; Lin, Chung-Ping

Table 3 Information on other resources recently uploaded to the Molecular Ecology Resources program wiki (http://tomato.biol.trinity.edu/programs/). The authors are listed in the final column

Species	Category	Type of resource	Authors
Oncorhynchus tshawytscha	Technique	Microsatellite allele ladder-based standardization	LaHood, Eric; Schlei, Ora; Wenburg, John; Moran, Paul