

PERMANENT GENETIC RESOURCES NOTE

Permanent Genetic Resources added to Molecular Ecology Resources Database 1 August 2009–30 September 2009

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Abstract

This article documents the addition of 238 microsatellite marker loci and 72 pairs of Single Nucleotide Polymorphism (SNP) sequencing primers to the Molecular Ecology Resources Database. Loci were developed for the following species: *Adelges tsugae*, *Artemisia tridentata*, *Astroides calycularis*, *Azorella selago*, *Botryllus schlosseri*, *Botrylloides violaceus*, *Cardiocrinum cordatum* var. *glehnii*, *Campylopterus curvipennis*, *Colocasia esculenta*, *Cynomys ludovicianus*, *Cynomys leucurus*, *Cynomys gunnisoni*, *Epinephelus coioides*, *Eunicella singularis*, *Gammarus pulex*, *Homoeosoma nebulella*, *Hyla squirella*, *Lateolabrax japonicus*, *Mastomys erythroleucus*, *Pararge aegeria*, *Pardosa sierra*, *Phoenicopterus ruber ruber* and *Silene latifolia*. These loci were cross-tested on the following species: *Adelges abietis*, *Adelges cooleyi*, *Adelges piceae*, *Pineus pini*, *Pineus strobi*, *Tubastrea micrantha*, three other *Tubastrea* species, *Botrylloides fuscus*, *Botrylloides simodensis*, *Campylopterus hemileucurus*, *Campylopterus rufus*, *Campylopterus largipennis*, *Campylopterus villaviscensio*, *Phaethornis longuemareus*, *Florisuga mellivora*, *Lampornis amethystinus*, *Amazilia cyanocephala*, *Archilochus colubris*, *Epinephelus lanceolatus*, *Epinephelus fuscoguttatus*, *Symbiodinium temperate-A* clade, *Gammarus fossarum*, *Gammarus roeselii*, *Dikerogammarus villosus* and *Limnomysis benedeni*. This article also documents the addition of 72 sequencing primer pairs and 52 allele specific primers for *Neophocaena phocaenoides*.

This article documents the addition of 238 microsatellite marker loci and 72 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. 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. of primers developed	Other species tested	MER database no.	GenBank Accession no.	Authors
<i>Adelges tsugae</i>	16	<i>A. abietis</i> , <i>A. cooleyi</i> , <i>A. piceae</i> , <i>Pineus pini</i> , <i>P. strobi</i>	37980–37995	GQ368549– GQ368564	Nathan P. Havil Adalgisa Caccone
<i>Artemisia tridentata</i>	8	n/a	41279–41286	AB488553– AB488560	S. Ishizaki S. Kubota K. Shiojiri R. Karban M. Ohara
<i>Astroides calycularis</i>	13	<i>Tubastrea micrantha</i> , <i>Tubastrea sp. 1</i> , <i>Tubastrea sp. 2</i> , <i>Tubastrea sp. 3</i>	41292–41304	GQ292717– GQ292725, GQ496302– GQ496305	P. Casado-Amezúa I. Acevedo R. García-Jiménez A. Machordom
<i>Azorella selago</i>	8	n/a	42478–42485	GQ3651674– GQ3651681	Céline Born Mélodie A. McGeoch Bettine Jansen van Vuuren
<i>Botryllus schlosseri</i> , <i>Botrylloides violaceus</i>	28	<i>Botrylloides fuscus</i> , <i>Botrylloides simodensis</i>	38070–38097	GQ272527– GQ272554	Dan G. Bock Abisola A. Adebayo Emmanuel E. Egbosimba Melania E. Cristescu
<i>Cardiocrinum cordatum var. glehnii</i>	13	n/a	41315–41327	AB512096– AB512108	M. Nishizawa S. Kubota M. Ohara
<i>Campylopterus curvipennis</i>	10	<i>C. hemileucus</i> , <i>C. rufus</i> , <i>C. largipennis</i> , <i>C. villaviscensio</i> , <i>Phaethornis longuemareus</i> , <i>Florisuga mellivora</i> , <i>Lampornis amethystinus</i> , <i>Amazilia cyanocephala</i> , <i>Archilochus colubris</i>	41305–41314	GQ294539– GQ294550	Clementina Gonzalez Carla Gutierrez-Rodriguez Juan Francisco Ornelas
<i>Colocasia esculenta</i>	19	n/a	38144–38162	FJ895330– FJ895348	Wansha Li Yan Zhou Yongping Yang Xiangyang Hu
<i>Cynomys ludovicianus</i> , <i>C. leucurus</i> , <i>C. gunnisoni</i>	9	n/a	38175–38184	FJ971631– FJ971639, FJ997263, FJ980459– FJ980464	Loren C. Sackett Lianna K. Etchberger Maxwell N. Mazzella Douglas D. Lim Andrew P. Martin
<i>Epinephelus coioides</i>	14	<i>Epinephelus lanceolatus</i> , <i>Epinephelus fuscoguttatus</i>	37966–37979	GQ267993– GQ267993 GQ381271, GQ429007– GQ429009	Le Wang Zining Meng Bin Fan Qing Sang Yayan Luo Yong Zhang Xiaochun Liu Haoran Lin

Table 1 (Continued).

Species	No. of primers developed	Other species tested	MER database no.	GenBank Accession no.	Authors
<i>Eunicella singularis</i>	12	<i>Symbiodinium</i> temperate-A clade	41272–41291	FJ917540–FJ917550, FJ919777	J. Cataneo M. F. Ortu P. Furla D. Forcioli
<i>Gammarus pulex</i>	8	<i>Gammarus fossarum</i> , <i>Gammarus roeselii</i> , <i>Dikerogammarus villosus</i> , <i>Limnomysis benedeni</i>	41336–41343	EH268406, EH269344, EH271322, EH271465, EH271889, EH272785, EH274528, EH275159	René Gergs Karl-Otto Rothhaupt Jasminca Behrmann-Godel
<i>Homoeosoma nebulella</i>	9	n/a	38098–38106	GQ150803– GQ150811	Ling-Zhen Cao Qin Ren Xiang-Li Xu Qing-Wen Zhang
<i>Hyla squirella</i>	11	n/a	42486–42496	GQ438807– GQ438817	Tyler D. Hether Eric A. Hoffman
<i>Lateolabrax japonicus</i>	11	n/a	42459–42469	GQ455996 GQ455997 GQ456002 GQ456006 GQ456007 GQ456013 GQ456018 GQ456019 GQ456022 GQ456032 GQ456037	Y. Zhao X. S. Ji H. Wang Y. Q. Zeng J. T. Wang
<i>Mastomys erythroleucus</i>	12	n/a	38163–38174	GQ406216– GQ406227	Philippe Gauthier Patricia O'Brien Laurent Granjon Doukary Abdoullaye Carine Brouat Gauthier Dobigny
<i>Pararge aegeria</i>	10	n/a	41344–41353	FJ899644–FJ899647, FJ899649–FJ899651, GQ847528– GQ847530	P. Helsen S. Vandewoestijne S. Van Dongen E. Matthysen
<i>Pardosa sierra</i>	10	n/a	37996–38005	EU580603– EU580608, FJ975139– FJ975142	M. M. Correa-Ramirez F. J. Garcia de Leon M. L. Jimenez
<i>Phoenicopterus ruber ruber</i>	9	n/a	38108–38116	GQ219786– GQ219790, GQ379053– GQ379055, GQ221667	R. Kapil G. M. Sawyer L. Preston R. C. Benjamin
<i>Silene latifolia</i>	8	n/a	41328–41335	FJ573199, FJ573200, FJ573202– FJ573204, FJ573206, FJ573207, FJ573209	Peter D. Fields Stephen R. Keller Pär K. Ingvarsson Amy B. Pedersen Douglas R. Taylor

Table 2 Information on the focal species, the sequencing primer pairs developed, the number of single nucleotide polymorphisms 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 database and GenBank accession numbers, respectively. The authors responsible for each set of loci are listed in the final column

Species	No. of primer pairs	No. of SNPs in sequence	No. of allele specific primers/probe	MER database no.	Genbank Accession no.	Authors
<i>Neophocaena phocaenoides</i>	72	137	52	38006–38040	FI592654, FI592658–FI592662, FI592665, FI592667, FI592668, FI592670, FI592671, FI592673, FI592678, FI592680–FI592688, FI592690, FI592691, FI592693–FI592697, FI592699–FI592704, FI592706–FI592711, FI592713, FI592714, FI592717	Shuzhen Li Heyi Ji Guang Yang