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Table S1. *Hox* genes identified to date in Mollusca.

[illegible]

	<i>Lymnaea stagnalis</i>	√	√	√		√		√*	√	√	√	√	[5]
	<i>Patella vulgata</i>			√		√	√	√	√	√	√		[23,24]
Scaphopoda	<i>Dentalium octangulatum</i>	√	√	√	√	√*			√	√	√	√	[5]
	<i>Euprymna scolopes</i>	√		√		√	√	√		√	√	√	[14,25]
	<i>Nautilus macromphalus</i>				√	√	√	√	√				[26]
Cephalopoda	<i>Nautilus pompilius</i>	√	√	√		√*		√*	√	√	√	√	[5,26]
	<i>Octopus bimaculoides</i>	√				√	√	√	√	√	√	√	[27]
	<i>Sepia officinalis</i>	√		√		√				√		√	[26]
	<i>Acanthochitona crinita</i>	√	√	√	√	√		√				√	[28]
Polyplacophora	<i>Acanthopleura japonica</i>	√				√*		√	√			√	[5]
	<i>Nuttallochiton mirandus</i>	√	√			√	√	√	√		√	√	[29]
Caudofoveata	<i>Chaetoderma japonica</i>			√		√*			√	√			[5]
Solenogastres	<i>Unidentified sp.</i>	√	√	√		√*	√		√		√	√	[5]

* indicates duplicated genes probably due to erroneous attribution [30].

Table S2. *Hox* genes identified to date in Annelida.

Annelida													
<i>Hox</i> Genes													
Species	PG-1	PG-2	PG-3	PG-4	PG-5	Lox5	Antp	Lox2	Lox4	Post-1	Post-2	References	
<i>Capitella teleta</i>	√	√	√	√	√	√	√	√	√	√	√	[22,31]	
<i>Ctenodrilus serratus</i>	√	√	√	√	√	√	√	√	√			[32]	
<i>Eisenia andrei</i>	√		√	√	√	√	√	√	√	√	√	[33]	
<i>Eisenia fetida</i>	√*		√*	√	√*	√	√	√*	√*	√*	√*	[34]	
<i>Helobdella robusta</i>	√*		√	√*	√*	√	√	√	√*		√*	[22]	
<i>Helobdella triserialis</i>	√			√	√							[35]	
<i>Hirudo medicinalis</i>				√	√			√	√			[36–39]	
<i>Lombricus sp.</i>			√									[14]	

	<i>Perionyx excavatus</i>	√ *	√	√ *	√ *	√	√	√	√	√	√	√ *	[40]
	<i>Pristina longiseta</i>	√ *		√									[41]
	<i>Stylaria lacustris</i>	√ *		√									[42]
	<i>Tubifex tubifex</i>	√		√	√	√ *	√		√ *	√			[43]
Errantia	<i>Nereis virens</i>	√	√	√	√	√	√	√	√	√	√	√	[23,44]
	<i>Platynereis dumerilii</i>	√	√	√	√	√	√		√		√	√	[45]
	<i>Myzostoma cirriferum</i>	√	√		√		√	√		√		√	[46]
	<i>Urechis caupo</i>			√									[14]
	<i>Urechis unicinetus</i>	√ *		√	√	√		√	√	√		√	[47]
	<i>Chaetopterus variopedatus</i>	√		√	√	√	√	√	√	√			[48]

* indicates duplicated genes.

Table S3. *Hox* genes identified to date in Platyhelminthes.

Platyhelminthes													
<i>Hox</i> Genes													
Class/Order	Species	PG-1	PG-2	PG-3	PG-4	PG-5	Lox5	Antp	Lox2	Lox4	Post-1	Post-2	References
Cestoda	<i>Echinococcus granulosus</i>	√		√	√		√					√	[49]
	<i>Echinococcus multilocularis</i>	√		√	√		√			√		√ *	[50,51]
	<i>Echinococcus vogeli</i>	√											[52]
	<i>Hymenolepis microstoma</i>	√			√		√			√		√ *	[51,53]
	<i>Mesocestoides corti</i>	√								√			[50]
	<i>Mesocestoides vogae</i>	√					√			√			[54]
	<i>Taenia asiatica</i>	√ *		√ *	√					√ *			[55]
	<i>Taenia solium</i>	√		√	√		√			√		√ *	[51]
Trematoda	<i>Echinostoma trivolvis</i>	√		√	√					√			[53,56]
	<i>Fasciola hepatica</i>	√			√								[52]
	<i>Schistosoma haematobium</i>	√			√								[57]
	<i>Schistosoma japonicum</i>	√	√	√	√		√			√		√ *	[58]
	<i>Schistosoma mansoni</i>	√	√	√	√		√ *			√		√ *	[50,59,60]
Monogenea	<i>Concinnocotyla australensis</i>	√		√						√			[61]
	<i>Diclidophora luscae</i>			√	√					√			[61]
	<i>Gyrodactylus salaris</i>	√	√ *		√		√			√		√ *	[62]
	<i>Polystoma gallieni</i>									√ *			[61]
	<i>Polystomoides malayi</i>			√ *									[61]
	<i>Polystomoides coronatum</i>	√		√	√								[61]
	<i>Protopolystoma xenopodis</i>	√			√								[61]

	<i>Pseudodiplorchis americanus</i>				√		√	[61]
	<i>Pseudopolystoma dendriticum</i>	√		√	√		√ *	[61]
	<i>Sphyrnura oligorchis</i>			√			√	[61]
	<i>Dendrocoelum lacteum</i>	√		√			√	[63]
	<i>Dugesia japonica</i>			√	√	√ *		[50,64–66]
	<i>Dugesia ryukyuensis</i>						√	[67]
	<i>Girardia tigrina</i>		√	√	√	√ *	√	[50,66,68–70]
Tricladida	<i>Phagocata woodworthi</i>	√ *		√			√ *	[56]
	<i>Polycelis felina</i>	√ *					√	[63]
	<i>Polycelis nigra</i>	√ *		√ *	√	√	√ *	[63,71]
	<i>Schmidtea mediterranea</i>					√	√	[72]
	<i>Schmidtea polychroa</i>					√		[73]
Polycladida	<i>Discocelis tigrina</i>	√			√		√	[66]
Macrostomida	<i>Macrostoma lignano</i>	√ *		√		√	√	[74]

* indicates duplicated genes. The duplication reported for PG-2 gene in *Gyrodactylus salaris* might be due to an erroneous attribution of PG.

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