

### Primers used most frequently by the Smithsonian Institution's DNA barcoding group

Primer Name	Dir.	Sequence	Author	Uses	Complementary Primers
LCO1490	forward	GGTCAACAAATCATAAAGATATTGG	Folmer et al. 1994	various	
HCO2198	reverse	TAAACTTCAGGGTGACCAAAAAATCA	Folmer et al. 1994	various	
dgLCO-1490	forward	GGTCAACAAATCATAAAGAYATYGG	Meyer 2003	various	
dgHCO-2198	reverse	TAAACTTCAGGGTGACCAARAAYCA	Meyer 2003	various	
Fish-BCL	forward	TCAACYAATCAYAAAGATATYGGCAC	Baldwin et al. 2008	Fish	Fish-BCH
Fish-BCH	reverse	ACTTCYGGGTGRCCRAARAATCA	Baldwin et al. 2008	Fish	Fish-BCL
BirdF1	forward	TTCTCCAACCACAAAGACATTGGCAC	Hebert et al. 2004	Birds	CO1birdR1
CO1birdR1	reverse	ACTTCTGGGTGGCCAAAGAATCAGAA	Hebert et al. 2004	Birds	BirdF1
OphiF1	forward	ATAATGATAGGAGGATTTGGAAA	Driskell, unpub.	Echinoderms	dgHCO-2198
VF1d	forward	TCTCAACCAACCACAARGAYATYGG	Ivanova et al. 2006	Mammals	VR1d
VR1d	reverse	TAGACTTCTGGGTGGCCRAARAAYCA	Ivanova et al. 2006	Mammals	VF1d
C1-J-1718F (aka ubc6)	forward	ggaggatttgaaattgattagtgcc	Simon et al. 1994	Insects	C1-N-2191R
C1-N-2191R (aka ubc9/Nancy)	reverse	cccggtaaattaaatataaacttc	Simon et al. 1994	Insects, crustaceans	C1-J-1718F LCO1490
Chelicerate-F1	forward	TACTCTACTAATCATAAAGACATTGG	Barrett & Hebert 2005	Spiders	Chelicerate-R1 HCO2198
Chelicerate-R1	reverse	CCTCCTCCTGAAGGGTCAAAAAATGA	Barrett & Hebert 2005	Spiders	Chelicerate-F1 LCO1490
ROTcox1R1	reverse	TGTTGRGGGAAAAARGTTAAATT	Rot et al. 2004	Sponges	
diplocox1F1	forward	GGTGCWCCRGATATGGCNTTTC	Lavrov et al. 2008	Sponges	
diplocox1F2	forward	ggtacsgcaatsatcatngtsgc	Lavrov et al. 2008	Sponges	
diplocox1R1	reverse	ggaaangccatcatcyggsgcacc	Lavrov et al. 2008	Sponges	
diplocox1R2	reverse	GGTACWGCAATWATCATNGTWGC	Lavrov et al. 2008	Sponges	
CO1f-5'	forward	CCTGCAGGAGGAGGAGAYCC	Palumbi 1996, in Hillis and Moritz	Sponges	
coxF3	forward	GGTCAACAAATCATAAAGATATTGG	Raleigh et al. 2007	Sponges	
coxR3	reverse	TAAACTTCAGGGTGACCAAAAAATCA	Raleigh et al. 2007	Sponges	
coxF4	forward	TGATTTTTTGGTCAACCCTGAAGTTTA	Raleigh et al. 2007	Sponges	
coxR4	reverse	TCAGAATATCGCTAGGTAGC	Raleigh et al. 2007	Sponges	
C1-J2165		GAAGTTTATATTTTAAATTTACCDGG	Erpenbeck et al. 2002	Sponges	
C1-NPOR2760		TCTAGGTAATCCAGCTAAACC	Misof et al. 2000	Sponges	