

		***** ;***** *****.*****.***** ****;*****.*****:*.:. :;***** *. * *. *. * : : . * ***** *. * * : : * : : * : * . * * *	
	Atrn001197	MALLPPDPPIYTIIRNVNDVPVYSLAFSFLPGGLERLLAGSKNGYVYAYNLQTNRVQOKIQVGQAPILHLIHTDSRLITQEKGGKKHVFILFNSGYKEDAVIIDIDYPGFCRFEANTKLETLFVDPKESKICINYSFGEKMGSLQPD-DSS-P	150
	Pint007858	MALLPPDPKYTIIRNVNDVPVYSLAFSFLPGGLERLLAGSKNGYVYAYNLQTNRVQOKIQVGQAPILHLIHSDSHLITQEKGGKKIFALTNSGYQEDAVIETDYPGFCRFEANTKLETLFVDPKESKIVHSFGEKICSLELD-NSSEL	150
	Tbat018273	MALLPPDPVYTIIRNVNDVPVYSLAFSFLPGGLERLLAGSKNGYVYAYNLQTNRVQOKIQVGQAPILHLIHTSSQLITQEKGGKKFVFLTNSGYKEDAVIETDYPGFCRFEANTKLEILYVDPKDSKIQIYNFSGELQCLEPP-TTP--	150
	Csup014221	MALLPPDPVYTIIRNVNDVPVYSLAFSFLPGGLERLLAGSKNGYVYAYNLQTNRVQOKIQVGQAPILHLIHTDSHLITQEKGGKKIFKLTNSGYKEDALIEDYDYPGFCRFEANTKLETLYVDPKESKIHINFSGEEKETLIPDTNDSPP	150
Moths	Bmor011430	MALLPPDPVYTIIRNVNDVPVYSLAFSFLPGGLERLLAGSKNGYVYAYNLQTNRVQOKIQVGQAPILHLIHTDSHLITQEKGGKKLVFELTNSGYEEDAVIEVDYLGFCRFEANTKLASLYVPEKDYKINIYNFNGEKLGSLGYDDASV--	150
	Bman002533	MALLPPDPVYTIIRNVNDVPVYSLAFSFLPGGLERLLAGSKNGYVYAYNLQTNRVQOKIQVGQAPILHLIHTDSHLITQEKGGKKLVFELTNSGYEEDAVIEVDYDYPGFCRFEANTKLASLYVPEKDYKINIYNFNGEKLGSLGYDDASV--	150
	Msex001283	MALLPPDPVYTIIRNVNDVPVYSLAFNFLPGGLERLLAGSKNGYVYAFNLQTNRVQOKIQVGQAPILHLIHTDTQLITQEKGGKKIFELTNRGYEEDVVINIDYDYPGFCRFEANTKLETLYVDPNDSKIHINFSGEKLGCLEMDDKTL--	150
	Hfuc024652	MALLPPDPVYTIIRNVNDVPVYSLAFNFLPGGLERLLAGSKNGYVYAFNLQTNRVQOKIQVGQAPILHLIHTDTQLITQEKGGKKIFELTNRGYEEDVVINIDYDYPGFCRFEANTKLETLYVDPNDSKIHINFSGEKLGCLEMDDKTL--	150
	Sfru014272	MALLPPDPVYTIIRNVNDVPVYSLAFSFLPGGLERLLAGSKNGYVYAYNLQTNRVQOKIQVGQAPILHLIHTDNHLITQEKGGKKFVFSLTNSGYEEDALIDIDYPGFCRFDANTKLEALYVDPKDSKIHINFSGERGGCLE-PDASL--	150
	Sfru014536	MALLPPDPVYTIIRNVNDVPVYSLAFSFLPGGLERLLAGSKNGYVYAYNLQTNRVQOKIQVGQAPILHLIHTDNHLITQEKGGKKFVFSLTNSGYEEDALIDIDYPGFCRFDANTKLEALYVDPKDSKIHINFSGEKAGCLE-PDASL--	150
	Slit015496	MALLPPDPVYTIIRNVNDVPVYSLAFSFLPGGLERLLAGSKNGYVYAYNLQTNRVQOKIQVGQAPILHLIHTDNHLITQEKGGKKFVFSLTNSGYEEDALIDIDYPGFCRFDANTKLEALYVDPKDSKIHINFSGEKGGCLE-PDASL--	150
	Sexi021658	MALLPPDPVYTIIRNVNDVPVYSLAFSFLPGGLERLLAGSKNGYVYAYNLQTNRVQOKIQVGQAPILHLIHTDNHLITQEKGGKKFVFSLTNSGYEEDALIDIDYPGFCRFDANTKLEALYVDPKDSKIHINFSGEKVGCLE-PDSSL--	150
	Aips015788	MALLPPDPVYTIIRNVNDIPVYSLAFSFLPGGLERLLAGSKNGYVYAYNLQTNRVQOKIQVGQAPILHLIHTDNHLITQEKGGKKFVFSLTNSGYEEDALIDIDYPGFCRFAANTKLETLYVDPKDSNIHINFSGEKVGGL-PDSSL--	150
	Pgno013081	MALLPPDPVYTIIRNVNDVPVYSLAFSFLPGGLERLLAGSKNGYVYAYNLQTNRVQOKIKVGQAPILHLIHTNEHLITQEKGGKKVFSLTNSGYEEDAFINIDYDYPGFCRFEASTKLKTLYVDPKESKIHTYNFSGEKVHGLE-PDASL--	150
	Ptre016887	MALLPPDPVYTIIRNVNDVPVYSLAFSFLPGGLERLLAGSKNGYVYAYNLQTNRVQOKIKVGQAPILHLIHTNEHLITQEKGGKKVFSLTNTGYEEDAFINIDYDYPGFCRFEASTKLKTLYVDPKESKIHTYNFSGEKVHGLE-PDAAL--	150
	Lacc016196	MALLPPDPVYTIIRNVNDSPVYSLAFSFLPGGLERLLAGSKNGYVYAYNLQTNRVQOKIQVGQAPILHLIHTNQLITQEKGGKKIFNLTNTGYKEDTINIDYSGFCRFEANTKLETLYVDPDQSKISTYNFSGEKIGSLQPENGLP--	150
	Dchr001656	MALLPPDPVFTIIRNVNDSPVYSLAFSFLPGGLERLLAGSKNGYVYAYNLQTNRVQOKIKVGQAPILHLIHTDNQLITQEKGGKKFIFNLTNSGYKEEQIIDIDYPGFCRFVANTELETLYVDPGDARIQIYNFSGEKLGILKPEDDSP--	150
	Dple005216	MALLPPDPVFTIIRNVNDSPVYSLAFSFLPGGLERLLAGSKNGYVYAYNLQTNRVQOKIKVGQAPILHLIHTDNQLITQEKGGKKFIFNLTNSGYKEEQIIDIDYPGFCRFVANTELETLYVDPGDARIQIYNFSGEKLGILKPEDDSP--	150
	Hher016556	MALLPPDPVYTIIRNVNDSPVYSLAFSFLPGGLERLLAGSKNGYVYAYNLQTNRVQOKIKVGQAPILHLIHTSSQMITQEKGGKKFIFNLTNSGYQEEHTIDIDYPGFCRFDANTKLETLYVDPSESKIYYINFSGEKLDCLKPEN--P--	150
	Hhim016824	MALLPPDPVYTIIRNVNDSPVYSLAFSFLPGGLERLLAGSKNGYVYAYNLQTNRVQOKIKVGQAPILHLIHTSSQMITQEKGGKKFIFNLTNSGYQEEHTIDIDYPGFCRFDANTKLETLYVDPSESKIYYINFSGEKLDCLKPEN--P--	150
	Hera008411	MALLPPDPVYTIIRNVNDSPVYSLAFSFLPGGLERLLAGSKNGYVYAYNLQTNRVQOKIKVGQAPILHLIHTSSQMITQEKGGKKFIFNLTNSGYQEEHTIDIDYPGFCRFDANTKLETLYVDPSESKIYYINFSGEKLDCLKPEN--P--	150
Butterflies	Hmel011113	MALLPPDPVYTIIRNVNDSPVYSLAFSFLPGGLERLLAGSKNGYVYAYNLQTNRVQOKIKVGQAPILHLIHTSSQMITQEKGGKKFIFNLTNSGYQEEHTIDIDYPGFCRFDANTKLETLYVDPDESKIYYINFSGEKLDCLKPEN--P--	150
	Hnat011184	MALLPPDPVYTIIRNVNDSPVYSLAFSFLPGGLERLLAGSKNGYVYAYNLQTNRVQOKIKVGQAPILHLIHTSSQMITQEKGGKKFIFNLTNSGYQEEHTIDIDYPGFCRFDANTKLETLYVDPDESKIYYINFSGEKLDCLKPEN--P--	150
	Paeg003961	MALLPPDPVYTIIRNVNDSPVYSLAFSFLPGGLERLLVGSKNGYVYAYNLQTNRVQOKIKVGQAPILHLIHTDSQMLTQEKGGIYKIFNLTNGYKEGTIDIDYPGFCRFDANTKLETLYVDPRESTIYYINFNGEKIGSLKPDNDLP--	150
	Pdar015885	MALLPPDPVYTIIRNVNDSPVYSLAFSFLPGGLERLLAGSKNGYVYAYNLQTNRVQOKIKVGQAPILHLIHTDNQLITQEKGGKKFIFNLTNSGYKEETLIDLDYDYPGFCRFEANTKLETLYVDPRESSVTIYNFSGEKTGSLTP-NTSP--	150
	Pxut006373	MALLPPDPVYTIIRNVNDSPVYSLAFSFLPGGLERLLAGSKNGYVYAYNLQTNRVQOKIKVGQAPILHLIHTNDQLITQEKGGKKFIFNLTNSGYKEETLIDLDYDYPGFCRFEANTKLETLYVDPRESSITIYNFSGEKTGSLTPVNTSP--	150
	Pmac007984	MALLPPDPVYTIIRNVNDSPVYSLAFSFLPGGLERLLAGSKNGYVYAYNLQTNRVQOKIKVGQAPILHLIHTNNQLITQEKGGKKFIFNLTNSGYKEETLIDLDYDYPGFCRFEANTKLETLYVDPRESSITIYNFSGEKMGSLLVPNTSP--	150
	Phia012816	MALLPPDPVYTIIRNVNDSPVYSLAFSFLPGGLERLLAGSKNGYVYAYNLQTNRVQOKIKVGQAPILHLIHTNNQLITQEKGGKKFIFDLTNSGYKEETLIDIDYPGFCRFEANTKLETLYVDPGESITIYNFSGEKMGSLLTPVNTSP--	150
	Pmem001318	MALLPPDPVYTIIRNVNDSPVYSLAFSFLPGGLERLLAGSKNGYVYAYNLQTNRVQOKIKVGQAPILHLIHTDNQLITQEKGGKKFIFDLTNSGYKEEVLIDLDYDYPGFCRFEANTKLETLYVDPRESSCVTIYNFSGEKVGLSLTP-NTSP--	150
	Ppol010712	MALLPPDPVYTIIRNVNDSPVYSLAFSFLPGGLERLLAGSKNGYVYAYNLQTNRVQOKIKVGQAPILHLIHTDNQLITQEKGGKKFIFDLTNSGYKEEVLIDLDYDYPGFCRFEANTKLETLYVDPRESSCVTIYNFSGEKVGLSLTP-NTSP--	150
	Pgla013622	MALLPPDPVYTIIRNVNDSPVYSLAFSFLPGGLERLLAGSKNGYVYAYNLQTNRVQOKIKVGQAPILHLIHTNNQLITQEKGGKKFIFNLTNSGYKEETLIDFDYPGFCRFEANTKLETLYVDPRESSITIYNFSGEKMGSLLTPAKTSP--	150
	Papo000977	MALLPPDPVYTIIRNVNDSPVYSLAFSFLPGGLERLLAGSKNGYVYAYNLQTNRVQOKIQVGQAPILHLIHTDQLITQEKGGKKFIFSLTNSGYKEEHIIDMDYDYPGFCRFEANTKLEMLYVDPRESSIAIYNFSGEKMGSLLKPENASP--	150
	Ccro015840	MALLPPDPVYTIIRNVNDVPVYSLAFNFLPGGLERLLAGSKNGYVYAYNLQTNRVQOKIQVGQAPILHLIHTDQLITQEKGGKKFIFNLTNTGYKVANIDIDYPGFCRFEANTKLKVLVYVPMESKINIYNFSGEKIGYLLKPTQEP--	150
	Psen011474	MALLPPDPVYTIIRNVNDTPVYSLAFSFLPGGLERLLAGSKNGYVYAYNLQTNRVQOKIQVGQAPILHLIHTEDQLITQEKGGKKFIFNLTAGYKEECSDIDIDYPGFCRFEANTKLKVLVYVPMESKINIYNFSGENIACLKPTQEP--	150
		1.....10.....20.....30.....40.....50.....60.....70.....80.....90.....100.....110.....120.....130.....140.....150	
			

Symbol(!) stands for the variable site of GNB11 gene between butterflies and moths.

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Moths

Atrn001197	NANLMAAGGLDGAITLWDLYNAKN--	326
Pint007858	NANIMAAGGLDGAITLWDLYNTKN--	326
That018273	NAYIMAAGGLDGAITLWNLYNTKH--	326
Csup014221	KAHIMAAGGLDGAITLWDLYNNKN--	326
Bmor011430	KAYIMAAGGLDGAITLWDLYNSKQ--	326
Bman002533	KAYIMAAGGLDGAITLWDLYNSKQ--	326
Msex001283	NAHIMAAGGLDGAITLWDLYNNKQ--	326
Hfuc024652	NAHIMAAGGLDGAITLWDLYNNKQ--	326
Sfru014272	NAKIMAAGGLDGAITLWDLYNAKQ--	326
Sfru014536	NAKIMAAGGLDGAITLWDLYNAKQ--	326
Slit015496	NAKIMAAGGLDGAITLWDLYNAKQ--	326
Sexi021658	NAKIMAAGGLDGAITLWDLYNTKQ--	326
Aips015788	KAHIMAAGGLDGAITLWDLYNNKQQ--	326
Pgno013081	KANIMAAGGLDGAITLWDLYNNKQ--	326
Ptre016887	KANIMAAGGLDGAITLWDLYNSKQ--	326
Lacc016196	NAHIMAAGGLDGAITLWDLYNTKQ--	326
Dchr001656	NANIMAAGGLDGAITLWDLYNTKK--	326
Dple005216	NANIMAAGGLDGAITLWDLYNTKK--	326
Hher016556	NANIMAAGGLDGAITLWDLYNTKK--	326
Hhim016824	NANIMAAGGLDGAITLWDLYNTKK--	326
Hera008411	NANIMAAGGLDGAITLWDLYNTKK--	326
Hmel011113	NANIMAAGGLDGAITLWDLYNTKK--	326
Hnat011184	NANIMAAGGLDGAITLWDLYNTKK--	326
Paeg003961	NANILAAGGLDGAITLWDLYNNKK--	326
Pdar015885	KAHIMAAGGLDGAITLWDLYNNKQ--	326
Pxut006373	NAHIMAAGGLDGAITLWDLYNNKQ--	326
Pmac007984	NAHIMAAGGLDGAITLWDLYNNKK--	326
Phia012816	KAHIMAAGGLDGAITLWDLYNNKQ--	326
Pmem001318	KAHIMAAGGLDGAITLWDLYNNKQ--	326
Ppol010712	NAHIMAAGGLDGAITLWDLYNNKQ--	326
Pgla013622	NANIMAAGGLDGAITLWDLYNNHKQ--	326
Papo000977	NANIMAAGGLDGAITLWDLYNNKQ--	326
Ccro015840	NANIMAAGGLDGVITLWDLYNNKNK	326
Psen011474	NANIMAAGGLDGVITLWDLYNNHKQ	326

.....310.....320.....

Butterflies

