Schedule of the Summer Course

"Hydrobiology and inland environmental science in Poland"

by the Faculty of Fisheries Sciences, Hokkaido University (HU), Japan and the Department of Zoology, Faculty of Biology and Biotechnology, the University of Warmia and Mazury in Olsztyn (UWM), Poland

12-24 September 2016

Lectures (each 45') for all Students/Participants given by Professors: 3 from HU, 1 from PAN in Olsztyn, 4 from UWM in Olsztyn

Prof. Yasuaki TAKAGI, Prof. Takafumi FUJIMOTO - Coordinators from HU;

Prof. Alicja BORON - Coordinator from UWM

Lectures and practical training for all Students/Participants

Who	From	When	Title/activities		
Yasuaki Takagi	HU	15.09.2016	Lecture (2 hours): "Bridging the gap between basic		
		9:30-11:00	research and industry - Studies on efficient use of		
			aquaculture wastes"		
Takafumi Fujimoto	HU	19.09.2016	Lecture (2 hours): "Chromosome set manipulation		
		9:30-11:00	and embryo manipulation"		
Hisae Kasai	HU	16.09.2016	Lecture (2 hours): "Salmonid viral diseases and		
		9:30-11:00	disease control strategies in Japan"		
Andrzej Ciereszko	PAN	20.09.2016	Lecture (2 hours): "Cryopreservation of the fish		
		9:30-11:00	sperm"		
		11:00-13:15	Practical training (3 hours): "Cryopreservation of the		
			fish sperm"		
Alicja Boron	UWM	12.09.2016	Lecture (2 hours): "Hydrobiology as the science		
		10:30-12:00	of life processes in water - field of research		
			interests and inland water bodies in Poland"		
Dorota Fopp-Bayat	UWM	16.09.2016	Lecture (2 hours): "Application of genetic analysis in		
		11:00-12:30	aquaculture and conservation of sturgeons" -		
		13:30-16:30	Practical training (4 hours) by prof. Dorota Fopp-		
			Bayat and Marcin Kuciński, PhD student		
			"Analysis of the basic parameters of water quality"		
Stanisław	UWM	13.09.2016	Lecture (2 hours): "Animals living in Polish inland		
Czachorowski		9:30-11:00	water bodies; characteristic of the most typical		
			taxa, their adaptations and limitations"		
		11:00-13:15	Practical training (3 hours): "Identification of main		
			typical invertebrates taxa inhabiting Polish lakes		
			and rivers"		
Lech Kirtiklis, Olga	UWM	14.09.2016	Lecture (2 hours): "Taxonomical identification – a		
Jablonska		9:30-11:00	review of the genetic methods"		
		11:00-12:30	Practical training (4 hours): "Molecular techniques		
		13:30-15:00	in freshwater animals' taxonomy"		
total: 30 hours			16 hours of lectures		
			14 hours of practical training		

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12-24 September 2016

Prof. Yasuaki TAKAGI, Prof. Takafumi FUJIMOTO - Coordinators from HU;

Prof. Alicja BORON - Coordinator from UWM

Each Group (#1 and #2) contains: 4 students (two from HU and two from UMW), assistant professor or PhD student (UWM) - supervisors of Participants and professor (UWM or HU).

Most of activities will be held in The Molecular Diagnostics Laboratory

Day	Activities			
	Group #1	Group #2		
10.09 Saturday	Arrive at Poland (stay one night at Warszawa, because of arrival at night (20:45))			
11.09 Sunday	Move to Olsztyn (Yasuaki TAKAGI, Hisae KASAI, HU students)			
	Alicja BORON, Yasuaki TAKAGI			
	Orientation; 15:15-17:00 Welcome party/Ice breaking (coffee/tea with sweets)			
12. 09. (Monday)				
10:00-10:20	Prof. Tadeusz Kaminski, Dean of the Faculty of Biology and Biotechnology			
	Welcome address			
	Start of the summer course – Yasuaki TAK			
10:30-12:00 (2hrs)	Lecture by Alicja Boron "Hydrobiology as the science of life processes in water -			
	field of research interests and inland water bodies in Poland"			
12:15-13:00 (1hrs)	Four Mini-projects (MP) - 2 for each Group - short seminar - introduction into the			
	topics by Yasuaki TAKAGI, Alicja BORON;			
	1. MP (14hrs) by Dorota Juchno, PhD	3. MP (14hrs) by PhD student -		
	"Gonad histology of the Prussian carp	Aleksandra Szabelska, Lech Kitiklis, PhD		
	Carassius gibelio (Teleostei, Cyprinidae)	"The length and chromosomal mapping		
	males from bisexual population in	of 5S rDNA sequence of <i>Carassius</i>		
	Poland"	gibelio of different ploidy level"		
	2. MP (20hrs) by PhD student - Anna	4. MP (20hrs) by PhD student - Karolina		
	Przybyl and Anna Leska, PhD	Kowalewska, dr Olga Jabłońska, PhD		
	"Testosterone concentration in males	"Analysis of DNMT1, DNMT3a, DNMT3b		
	and females of the Prussian carp	gene expression during embryonic		
	Carassius gibelio (Bloch, 1782) from	development of the spined loach <i>Cobitis</i>		
42.00.44.00	bisexual population in Poland" taenia"			
13:00-14:00	Lunch	0.000/441) 1.010		
14:15-17:15 (4hrs)	1. MP (14hrs) by Dorota Juchno, PhD	3. MP (14hrs) by PhD student -		
	"Gonad histology of the Prussian carp	Aleksandra Szabelska, Lech Kitiklis, PhD		
	Carassius gibelio (Teleostei, Cyprinidae) "The length and chromosoma			
	males from bisexual population in	of 5S rDNA sequence of <i>Carassius</i>		
	Poland"	gibelio of different ploidy level"		

13. 09. (Tuesday)				
9:30-11:00 (2hrs)	Lecture by prof. Stanisław Czachorowski "A	Animals living in Polish inland water		
	bodies; characteristic of the most typical taxa, adaptations and limitations"			
11:00-13:15 (3hrs)	Practical training by prof. Stanisław Czacho	•		
11.00 13.13 (31113)	invertebrates taxa inhabiting Polish lakes			
	collecting samples)	and rivers (trip to the Kortowskie Lake,		
13:15-14:15	Lunch			
14:15-17:15 (4hrs)	1. MP (14hrs) by Dorota Juchno, PhD 3. MP (14hrs) by PhD student -			
14.13-17.13 (41113)	"Gonad histology of the Prussian carp			
	Carassius gibelio (Teleostei, Cyprinidae)	Aleksandra Szabelska, Lech Kitiklis, PhD "The length and chromosomal mapping		
	1	of 5S rDNA sequence of <i>Carassius</i>		
	males from bisexual population in Poland"	-		
	Polatiu	gibelio of different ploidy level"		
44.00 (14/2 due 2 de 14				
14. 09. (Wednesday)	Land on hall and Warth's PhD and Obsalable	and a DED IIT and a selection of the self and a		
9:30-11:00 (2hrs)	Lecture by Lech Kirtiklis, PhD and Olga Jabl	onska, PhD "Taxonomical identification -		
44.00.42.20.(25)	a review of the genetic methods"	Oles Jahlanda DhD III a la la la		
11:00-12:30 (2hrs)	Practical training by Lech Kirtiklis, PhD and	_		
12 22 12 22	techniques in freshwater animals' taxonomy"			
12:30-13:30	Lunch			
13:30-15:00 (2hrs)	(continuation) Practical training "Molecular techniques in freshwater animals'			
15:00-17:15 (3hrs)	1. MP (14hrs) by Dorota Juchno, PhD	3. MP (14hrs) by PhD student -		
15.00-17.15 (51115)	"Gonad histology of the Prussian carp	• •		
		Aleksandra Szabelska, Lech Kitiklis, PhD		
	Carassius gibelio (Teleostei, Cyprinidae)	"The length and chromosomal mapping		
	males from bisexual population in	of 5S rDNA sequence of <i>Carassius</i>		
	Poland"	gibelio of different ploidy level"		
15. 09. (Thursday)	Lacture by prof Vacuaki Takagi HILI"Dridgi	ing the gap between basis research and		
9:30-11:00 (2hrs)	Lecture by prof. Yasuaki Takagi, HU "Bridging the gap between basic research and			
, ,	industry - Studies on efficient use of aquaculture wastes"			
11:00-12:30 (2hrs)	Tour to Inland Fisheries Institute or <i>Danio reiro</i> Laboratory by prof. Alicja BORON and prof. Yasuaki TAKAGI			
12:30-13:30	 	INAGI		
	Lunch	2 BAD (1 Abra) by DbD atridant		
13:30-15:45 (3hrs)	1. MP (14hrs) by Dorota Juchno, PhD	3. MP (14hrs) by PhD student -		
	"Gonad histology of the Prussian carp	Aleksandra Szabelska, Lech Kitiklis, PhD		
	Carassius gibelio (Teleostei, Cyprinidae)	"The length and chromosomal mapping		
	males from bisexual population in	of 5S rDNA sequence of <i>Carassius</i>		
	Poland" - final analysis	gibelio of different ploidy level"- final analysis		
15:45-16:30 (1hrs)	All students work together to improve/finish presentation "The language and			
15.45-10.50 (11113)	15:45-16:30 (1hrs) All students work together to improve/finish presentation "The language and culture of Japan" - by HU students during the Olsztyn's Days of Science and			
	by 110 students during	the disztyn s bays of science and Art		
16.00 (Eriday)				
16.09. (Friday)	Locture by prof. Hisso Vasai HII "Salmoni	d viral diseases and diseases control		
9:30:11:00 (2hrs)	Lecture by prof. Hisae Kasai, HU "Salmonid viral diseases and disease control			
	strategies in Japan" Lecture by prof. Dereta Fond Bayat, DhD student, Marsin Kusiáski "Application of			
11,00 12,20 /25	·	tudant Marcin Kusiński (Annliestian of		
11:00-12:30 (2hrs)	Lecture by prof. Dorota Fopp-Bayat, PhD s			
11:00-12:30 (2hrs) 12:30-13:30	·			

13:30-16:30 (4hrs)	Practical training by prof. Dorota Fopp-Bayat, Marcin Kuciński, PhD student "Analysis of the basic parameters of water quality"				
17:00-19:00	UWM students will take HU students on tour of Olsztyn				
	,				
17. 09. (Saturday)	(Students)				
	Trip to Krakow and Wieliczka Salt Mine; to know the culture and tradition of Poland				
	(Professors)				
18. 09. (Sunday)	Professor Takagi and Kasai leaves for Japan (Move to Warszaw, Departure time: 14:25)				
	Arrival of Prof. Takafumi Fujimoto, HU from Prague (Warszaw: Arrival time: 13:55, Move to Olsztyn)				
19. 09 (Monday)					
9:30-11:00 (2hrs)	Lecture by prof. Takafumi Fujimoto, HU "C	hromosome set manipulation and			
	embryo manipulation"				
11:00-13:15 (3hrs)	2. MP (20hrs) by PhD student - Anna 4. MP (20hrs) by PhD student -				
	Przybyl and Anna Leska, PhD	Kowalewska, dr Olga Jabłońska, PhD			
	"Testosterone concentration in males	"Analysis of DNMT1, DNMT3a, DNMT3b			
	and females of the Prussian carp	gene expression during embryonic			
	Carassius gibelio (Bloch, 1782) from	development of the spined loach Cobitis			
	bisexual population in Poland" taenia"				
13:15-14:15	lunch				
14:45-17:00 (3 hrs)	2. MP (20hrs) by PhD student - Anna	4. MP (20hrs) by PhD student - Karolina			
, ,	Przybyl and Anna Leska, PhD	Kowalewska, dr Olga Jabłońska, PhD			
	"Testosterone concentration in males	"Analysis of DNMT1, DNMT3a, DNMT3b			
	and females of the Prussian carp gene expression during embryon				
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	Carassius gibelio (Bloch, 1782) from bisexual population in Poland"	development of the spined loach <i>Cobitis</i>			
	Carassius gibelio (Bloch, 1782) from bisexual population in Poland"	development of the spined loach <i>Cobitis</i> taenia"			
20. 09. (Tuesday)		taenia"			
20. 09. (Tuesday) 9:30-11:00 (2hrs)	bisexual population in Poland"	taenia" tyn (PAN)			
9:30-11:00 (2hrs)	bisexual population in Poland" Tour to the Polish Academy of Sciences in Olsz Lecture by prof. Andrzej Ciereszko, PAN "C	taenia" tyn (PAN) cryopreservation of the fish sperm"			
9:30-11:00 (2hrs) 11:00-13:15 (3hrs)	bisexual population in Poland" Tour to the Polish Academy of Sciences in Olsz Lecture by prof. Andrzej Ciereszko, PAN "C Practical training by prof. Andrzej Ciereszk	taenia" tyn (PAN) cryopreservation of the fish sperm"			
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14:15-17:00 (4hrs)	2. MP (20hrs) by PhD student - Anna	4. MP (20hrs) by PhD student - Karolina		
	Przybyl and Anna Leska, PhD	Kowalewska, dr Olga Jabłońska, PhD		
	"Testosterone concentration in males	"Analysis of DNMT1, DNMT3a, DNMT3b		
	and females of the Prussian carp	gene expression during embryonic		
	Carassius gibelio (Bloch, 1782) from	development of the spined loach <i>Cobitis</i>		
	bisexual population in Poland"	taenia"		
22 22 /=! ! .				
22. 09. (Thursday)	//=! ! !	6		
10:00-11:30 (2hrs)	"The language and culture of Japan" - presentation by Students from the Hokkaido University during The Olsztyn's Days of Science and Art			
11:45-13:15 (2hrs)	2. MP (20hrs) by PhD student - Anna	4. MP (20hrs) by PhD student - Karolina		
	Przybyl and Anna Leska, PhD	Kowalewska, dr Olga Jabłońska, PhD		
	"Testosterone concentration in males	"Analysis of DNMT1, DNMT3a, DNMT3b		
	and females of the Prussian carp	gene expression during embryonic		
	Carassius gibelio (Bloch, 1782) from	development of the spined loach Cobitis		
	bisexual population in Poland"	taenia"		
13:15-14:15	lunch			
14:15-15:45 (2hrs)	2. MP (20hrs) by PhD student - Anna	4. MP (20hrs) by PhD student - Karolina		
	Przybyl and Anna Leska, PhD	Kowalewska, dr Olga Jabłońska, PhD		
	"Testosterone concentration in males	"Analysis of DNMT1, DNMT3a, DNMT3b		
	and females of the Prussian carp	gene expression during embryonic		
	Carassius gibelio (Bloch, 1782) from	development of the spined loach Cobitis		
	bisexual population in Poland" - final	taenia" - final analysis		
45 45 47 00 (2)	analysis	D (()		
15:45-17:00 (2hrs)	Preparation of the final presentation of	Preparation of the final presentation of		
	the results of two realized Mini-Projects	the results of two realized Mini-Projects		
	(#1, #2); (PhD student - A. Przybyl	(#3, #4); PhD student - A. Szabelska, L.		
	and A. Leska, PhD; D. Juchno, PhD)	Kitiklis, PhD; PhD student - K.		
		Kowalewska, dr O. Jabłońska, PhD		
23.09. (Friday)				
10:00-11:30 (2hrs)	Preparation of the final presentation of	Preparation of the final presentation of		
10.00 11.50 (21113)	the results of two realized Mini-Projects	the results of two realized Mini-Projects		
	(#1, #2); (PhD student - A. Przybyl	(#3, #4); PhD student - A. Szabelska, L.		
	and A. Leska, PhD; D. Juchno, PhD)	Kitiklis, PhD; PhD student - K.		
	and A. Ecska, Phib, B. Jacimio, Phib	Kowalewska, dr O. Jabłońska, PhD		
11:30-13:00 (2hrs)	All Students: Seminar by prof. Alicia BORO			
11.50 15.00 (21115)	All Students; Seminar by prof. Alicja BORON and prof. Takafumi FUJIMOTO; Final presentation and discussing of the results of Mini-Projects.			
13:00-14:00	Lunch			
14:00-15:30 (2 hrs)	All Students; Seminar by prof. Alicja BORON and prof. Takafumi FUJIMOTO; Final			
	presentation and discussing of the results of Mini-Projects.			
15:30-15:45	End of the Summer course			
16:00 - ∞	Farewell party;			
24.09. (Saturday)	Move to Warszawa and stay one night, a	nd then leave for Japan (25.09 (Sunday)).		

Running the summer course and excursion for 10 days (excluding weekend) with 7 to 9 hours (in only two days) of lectures/training courses/seminars in each days

1. In total during the Summer Course will be given 118 hours of different activities as following:

- a) 16 hours (16 x 45') of lectures,
- b) 14 hours of practical training (warsztaty),
- c) 68 hours of scientific research realizing as four Mini-Projects (cwiczenia),
- d) 14 hours of seminars and meetings,
- e) 4 hours giving "The language and culture of Japan" presentation during The Olsztyn's Days of Science and Art,
- f) 2 hours of visits.

2. Each Student-Participant will get 4 ECTS points (in UWM) = 2 credits (in HU) and take part in 80 hours of different activities as following:

- a) 16 hours (16 x 45') of lectures,
- b) 14 hours of practical training (warsztaty),
- c) 34 hours of scientific research realizing as two Mini-Projects (cwiczenia),
- d) 10 hours of seminars and meetings,
- e) 4 hours giving "The language and culture of Japan" presentation during The Olsztyn's Days of Science and Art,
- f) 2 hours of visits.

Total number of hours of lectures, training courses, seminars for each of Student-Participant and also in each working day during the Summer Course

Day	lectures	Mini- Projects realization	practical training	seminars, meetings, presentations/ preparation, visit	Total hours
12. 09. (Monday)	2	5	ı	1	8
13. 09. (Tuesday)	2	4	3	-	9
14. 09. (Wednesday)	2	3	4	-	9
15. 09. (Thursday)	2	3	ı	3	8
16.09. (Friday)	4	ı	4	-	8
19. 09 (Monday)	2	6	ı	-	8
20. 09. (Tuesday)	2	3	3	-	8
21. 09. (Wednesday)	-	6	=	2	8
22. 09. (Thursday)	-	4	-	4	8
23.09. (Friday)	-		=	6	6
Total 80	16	34	14	16	80