



COMISION ADMINISTRADORA DEL RIO URUGUAY

Paysandú, 15 de febrero de 2011

NOTICIAS DE CARU

Entre los días 15 y 26 de noviembre del 2010 la CARU llevó a cabo, con la participación de funcionarios de la DINARA (ROU) y de la Subsecretaría de Pesca y Acuicultura (RA), una campaña de relevamiento de los asentamientos pesqueros del río Uruguay medio e inferior correspondiente a la primavera de 2010.

Dentro de las tareas planificadas se desarrollaron las siguientes actividades:

- Muestreo biológico de las especies capturadas por pescadores locales y en cámaras de acopio de pescado.
- Operatividad de las embarcaciones (información aportada por las Prefecturas Navales).
- Se recogieron y entregaron planillas de pesca en ambas márgenes a pescadores previamente seleccionados.
- Obtención de muestras de tejidos para análisis de contaminantes (Pesticidas Organoclorados y Bifenilos Policlorados).

Con respecto al último punto, obtención de muestras para análisis de contaminantes, las mismas se tomaron de ejemplares frescos abarcando especies de diferente nivel trófico así como de localidades que permitieran monitorear un amplio tramo del río. Las muestras obtenidas en su totalidad fueron remitidas para su análisis al laboratorio de la Universidad de Buenos Aires (Cátedra de Toxicología y Química Legal), y **algunas réplicas** fueron enviadas al laboratorio INTERTEK de Alemania para su comparación.

A continuación se presenta la planilla con información de las muestras obtenidas en campo y enviadas al laboratorio Alemán, cuyos resultados se adjuntan al presente documento (Se aclara que el término n.d. implica valor no detectado, es decir por debajo del límite de cuantificación de todas las sustancias analizadas).

MUESTRA	FECHA	LUGAR	IDENTIFICACIÓN	RESULTADO
1	16/11/2010	ARAPEY	ARA-SABALO1 MUSCULO	n.d.
2	16/11/2010	ARAPEY	ARA-SABALO1 HIGADO	n.d.
3	18/11/2010	B. LEGEREN	BLE-BOGA1 MUSCULO	n.d.
4	19/11/2010	C. DEL URUG	CDU-DORADO27 MUSCULO	n.d.
5	20/11/2010	N. BERLIN	NBE-BOGA3 MUSCULO	n.d.
6	20/11/2010	N. BERLIN	NBE-DORADO13 MUSCULO	n.d.
7	20/11/2010	N. BERLIN	NBE-DORADO13 HIGADO	n.d.
8	20/11/2010	N. BERLIN	NBE-SABALO1 MUSCULO	n.d.



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Se adjunta luego de las copias de los resultados de los análisis efectuados, la lista de sustancias analizadas por el laboratorio INTERTEK, así como los niveles de cuantificación de las técnicas analíticas correspondientes.

Resta aún la obtención de los resultados de los análisis de las muestras remitidas al laboratorio de la Universidad de Buenos Aires, los cuales también serán difundidos por la Comisión.

Ing. Alejandro Arcelus
Secretario Técnico - CARU

ANALYSIS REPORT No. 101215212

DATE: 15.12.2010

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Client:



Comisión Adiministradora del Río Uruguay
Av. Costanera Norte S/N, Paysandu C.C.
57097 ROU
URUGUAY

E-Mail: arcelus@caru.org.uy

Our reference no.	: PI101207110		
Product	: Fish		
Sample description / Batch	: ARA-SABALO1 MUSCULO 1 - 16/11/2010 - ARAPEY		
Sample received on / transported by	: 06.12.2010 via parcel service	Seal	: none
Sample temp. when received / stored	: frozen / Freezer -18 °C	Sampling by	: Client
Packaging / Quantity	: plastic bag / approx. 110 g	Start / End of analysis	: 07.12.2010 / 15.12.2010

ANALYSIS REQUESTED: Organochlorine Pesticides and PCB by Gas Chromatography

Analyte(s)	Result	Unit	Method
Organochlorine Pesticides	n.d.	mg/kg	GC (na) (A)
PCB	n.d.	mg/kg	GC (na) (A)
n.d. - not detected < limit of quantification			
List of analytes and limits of quantification: see list attached to the analysis report			
(a) : accredited method. (na) : not accredited method. (A) : ASU § 64 LFGB L 00.00-115.			
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Interpretation:

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Melanie Heinkelein
Staatl. gepr. Lebensmittelchemikerin / Prüfleiterin



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ANALYSIS REPORT No. 101215213

DATE: 15.12.2010

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Client:



Comisión Adiministradora del Río Uruguay
 Av. Costanera Norte S/N, Paysandu C.C.
 57097 ROU
 URUGUAY

E-Mail: arcelus@caru.org.uy

Our reference no.	: PI101207111		
Product	: Fish		
Sample description / Batch	: ARA-SABALO1 HIGADO 2 - 16/11/2010 - ARAPEY		
Sample received on / transported by	: 06.12.2010 via parcel service	Seal	: none
Sample temp. when received / stored	: frozen / Freezer -18 °C	Sampling by	: Client
Packaging / Quantity	: plastic bag / approx. 20 g	Start / End of analysis	: 07.12.2010 / 15.12.2010

ANALYSIS REQUESTED: Organochlorine Pesticides and PCB by Gas Chromatography

Analyte(s)	Result	Unit	Method
Organochlorine Pesticides	n.d.	mg/kg	GC (na) (A)
PCB	n.d.	mg/kg	GC (na) (A)
n.d. - not detected < limit of quantification			
List of analytes and limits of quantification: see list attached to the analysis report			
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 Staatl. gepr. Lebensmittelchemikerin / Prüfleiterin



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ANALYSIS REPORT No. 101215214

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Av. Costanera Norte S/N, Paysandu C.C.
57097 ROU
URUGUAY

E-Mail: arcelus@caru.org.uy

Our reference no.	: PI101207112		
Product	: Fish		
Sample description / Batch	: BLE-BOGA1 MUSCULO 3 - 18/11/2010 - B. LEGEREN		
Sample received on / transported by	: 06.12.2010 via parcel service	Seal	: none
Sample temp. when received / stored	: frozen / Freezer -18 °C	Sampling by	: Client
Packaging / Quantity	: plastic bag / approx. 60 g	Start / End of analysis	: 07.12.2010 / 15.12.2010

ANALYSIS REQUESTED: Organochlorine Pesticides and PCB by Gas Chromatography

Analyte(s)	Result	Unit	Method
Organochlorine Pesticides	n.d.	mg/kg	GC (na) (A)
PCB	n.d.	mg/kg	GC (na) (A)
n.d. - not detected < limit of quantification			
List of analytes and limits of quantification: see list attached to the analysis report			
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Interpretation:

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Staatl. gepr. Lebensmittelchemikerin / Prüfleiterin



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ANALYSIS REPORT No. 101215215

DATE: 15.12.2010

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Comisión Adiministradora del Río Uruguay
Av. Costanera Norte S/N, Paysandu C.C.
57097 ROU
URUGUAY

E-Mail: arcelus@caru.org.uy

Our reference no.	: PI101207113		
Product	: Fish		
Sample description / Batch	: CDU-DORADO27 MUSCULO 4 - 19/11/2010 C. DEL URUG		
Sample received on / transported by	: 06.12.2010 via parcel service	Seal	: none
Sample temp. when received / stored	: frozen / Freezer -18 °C	Sampling by	: Client
Packaging / Quantity	: plastic bag / approx. 110 g	Start / End of analysis	: 07.12.2010 / 15.12.2010

ANALYSIS REQUESTED: Organochlorine Pesticides and PCB by Gas Chromatography

Analyte(s)	Result	Unit	Method
Organochlorine Pesticides	n.d.	mg/kg	GC (na) (A)
PCB	n.d.	mg/kg	GC (na) (A)
n.d. - not detected < limit of quantification List of analytes and limits of quantification: see list attached to the analysis report			
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Staatl. gepr. Lebensmittelchemikerin / Prüfleiterin



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ANALYSIS REPORT No. 101215216

DATE: 15.12.2010

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Client:



Comisión Administradora del Río Uruguay
Av. Costanera Norte S/N, Paysandu C.C.
57097 ROU
URUGUAY

E-Mail: arcelus@caru.org.uy

Our reference no.	: PI101207114		
Product	: Fish		
Sample description / Batch	: NBE-BOGA3 MUSCULO 5 - 20/11/2010 - N. BERLIN		
Sample received on / transported by	: 06.12.2010 via parcel service	Seal	: none
Sample temp. when received / stored	: frozen / Freezer -18 °C	Sampling by	: Client
Packaging / Quantity	: plastic bag / approx. 130 g	Start / End of analysis	: 07.12.2010 / 15.12.2010

ANALYSIS REQUESTED: Organochlorine Pesticides and PCB by Gas Chromatography

Analyte(s)	Result	Unit	Method
Organochlorine Pesticides	n.d.	mg/kg	GC (na) (A)
PCB	n.d.	mg/kg	GC (na) (A)
n.d. - not detected < limit of quantification			
List of analytes and limits of quantification: see list attached to the analysis report			
(a) : accredited method. (na) : not accredited method. (A) : ASU § 64 LFGB L 00.00-115.			
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Melanie Heinkelein

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ANALYSIS REPORT No. 101215217

DATE: 15.12.2010

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Client:



Comisión Administradora del Río Uruguay
 Av. Costanera Norte S/N, Paysandu C.C.
 57097 ROU
 URUGUAY

E-Mail: arcelus@caru.org.uy

Our reference no.	: PI101207115		
Product	: Fish		
Sample description / Batch	: NBE-DORADO13 MUSCULO 6 - 20/11/2010 - N. BERLIN		
Sample received on / transported by	: 06.12.2010 via parcel service	Seal	: none
Sample temp. when received / stored	: frozen / Freezer -18 °C	Sampling by	: Client
Packaging / Quantity	: plastic bag / approx. 110 g	Start / End of analysis	: 07.12.2010 / 15.12.2010

ANALYSIS REQUESTED: Organochlorine Pesticides and PCB by Gas Chromatography

Analyte(s)	Result	Unit	Method
Organochlorine Pesticides	n.d.	mg/kg	GC (na) (A)
PCB	n.d.	mg/kg	GC (na) (A)
n.d. - not detected < limit of quantification			
List of analytes and limits of quantification: see list attached to the analysis report			
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ANALYSIS REPORT No. 101215218

DATE: 15.12.2010

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Client:

80120711601
PA66884

Comisión Administradora del Río Uruguay
Av. Costanera Norte S/N, Paysandu C.C.
57097 ROU
URUGUAY

E-Mail: arcelus@caru.org.uy

Our reference no.	: PI101207116		
Product	: Fish		
Sample description / Batch	: NBE-DORADO13 HIGADO 7 - 20/11/2010 - N. BERLIN		
Sample received on / transported by	: 06.12.2010 via parcel service	Seal	: none
Sample temp. when received / stored	: frozen / Freezer -18 °C	Sampling by	: Client
Packaging / Quantity	: plastic bag / approx. 10 g	Start / End of analysis	: 07.12.2010 / 15.12.2010

ANALYSIS REQUESTED: Organochlorine Pesticides and PCB by Gas Chromatography

Analyte(s)	Result	Unit	Method
Organochlorine Pesticides	n.d.	mg/kg	GC (na) (A)
PCB	n.d.	mg/kg	GC (na) (A)
n.d. - not detected < limit of quantification			
List of analytes and limits of quantification: see list attached to the analysis report			
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ANALYSIS REPORT No. 101215219

DATE: 15.12.2010

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Client:



Comisión Administradora del Río Uruguay
Av. Costanera Norte S/N, Paysandu C.C.
57097 ROU
URUGUAY

E-Mail: arcelus@caru.org.uy

Our reference no.	: PI101207117		
Product	: Fish		
Sample description / Batch	: NBE-SABALO1 MUSCULO 8 - 20/11/2010 - N. BERLIN		
Sample received on / transported by	: 06.12.2010 via parcel service	Seal	: none
Sample temp. when received / stored	: frozen / Freezer -18 °C	Sampling by	: Client
Packaging / Quantity	: plastic bag / approx. 90 g	Start / End of analysis	: 07.12.2010 / 15.12.2010

ANALYSIS REQUESTED: Organochlorine Pesticides and PCB by Gas Chromatography

Analyte(s)	Result	Unit	Method
Organochlorine Pesticides	n.d.	mg/kg	GC (na) (A)
PCB	n.d.	mg/kg	GC (na) (A)
n.d. - not detected < limit of quantification			
List of analytes and limits of quantification: see list attached to the analysis report			
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Staatl. gepr. Lebensmittelchemikerin / Prüfleiterin



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Screening of Polychlorinated biphenyls (PCBs) in Fish by GC-MS/MS,
Limits of Quantification (LOQ) (Nov. 30th 2010)

Substance	GC-MS/MS LOQ [mg/kg]
PCB 28	0.005
PCB 52	0.005
PCB 95	0.005
PCB 99	0.005
PCB 101	0.005
PCB 105	0.005
PCB 110	0.006
PCB 118	0.005
PCB 138	0.009
PCB 146	0.008
PCB 149	0.005
PCB 151	0.005
PCB 153	0.005
PCB 170	0.007
PCB 177	0.006
PCB 180	0.008
PCB 183	0.006
PCB 187	0.008

**Pesticides-Screening in Fish (OC),
Limits of quantification (LOQs) (Sept. 1st 2010)**

Substance	LOQ GC-MS(/MS) [mg/kg]
Aclonifen	0.01
Aldrin	0.01
Benfluralin	0.01
Binapacryl	0.01
Captan	0.01
Chlorbenzilat	0.01
Chlordan, α - (cis-)	0.01
Chlordan, γ - (trans-)	0.01
Chlordan, Oxy-	0.01
Chlorfenapyr	0.01
Chlorfenson	0.01
Chloroneb	0.01
Chlorthal-dimethyl	0.01
Chlorthalonil	0.01
DDD, o,p'-	0.01
DDD, p,p'-	0.01
DDE, o,p'-	0.01
DDE, p,p'-	0.01
DDT, o,p'-	0.01
DDT, p,p'-	0.01
Dichlobenil	0.01
Dicloran	0.01
Dieldrin	0.01
Endosulfan, alpha-	0.01
Endosulfan, beta-	0.01
Endosulfansulfate	0.01
Endrin	0.01
Fenson	0.01
Fluchloralin	0.01
Hexachlorocyclohexane (HCH), α -	0.01
Hexachlorocyclohexane (HCH), β -	0.01
Hexachlorocyclohexane (HCH), δ -	0.01
Heptachlor	0.01
Heptachloroepoxide, cis-	0.01
Heptachloroepoxide, trans-	0.01
Hexachlorobenzene (HCB)	0.01
Iprodion	0.01
Isodrin	0.01
Lindan (γ -HCH)	0.01
Methoxychlor	0.01
Mirex	0.01
Nitrapyrin	0.01
Nitrofen	0.01
Pendimethalin	0.01
Pentachloranilin	0.01
Profluralin	0.01

Substance, continued	LOQ GC-MS(/MS) [mg/kg]
Quintozen	0.01
S421 (Octachlorodipropylether)	0.01
Tecnazen	0.01
Tetradifon	0.01
Tetrasul	0.01
Triallat	0.01
Trifluralin	0.01
Vinclozolin	0.01