



ORGANISMO NACIONAL DE SANIDAD PESQUERA

SUB DIRECCIÓN DE SUPERVISIÓN ACUÍCOLA

Monitoreo de Fitoplancton Potencialmente Tóxico

Departamento de Piura: Zona 012 Sechura

Análisis Semicuantitativo de Fitoplancton / Abundancia Relativa (células/campo)

1ra Semana



Semana: 01 al 07 de noviembre de 2015

Fechas: 07 de noviembre de 2015

ZONAS	012 BAHIA DE SECHURA										
AREAS	SAN PABLO	SAN PEDRO	PLAYA CHUYILLACHI	CHUYILLACHI	MATACABALLO	CONSTANTE	LAS DELICIAS	PARACHIQUE	BARRANCOS	VICHAYO	PUERTO RICO
ESTACION	01-A-SECH	02-A-SECH	03-A-SECH	04-A-SECH	05-B-SECH**	06-A-SECH	07-B-SECH*	08-C-SECH*	09-A-SECH*	10-C-SECH*	11-A-SECH
PROFUNDIDAD (m)	....	....	....	....	0-6	....	0-8	0-10	0-7	0-7	....
TEMPERATURA (°C)	....	....	....	....	19.9	....	20.3	20.5	19.6	19.6	....
DIATOMEAS											
Grupo <i>Pseudo-nitzschia delicatissima</i>	S/M	S/M	S/M	S/M	0	S/M	1	1	1	1	S/M
Grupo <i>Pseudo-nitzschia seriata</i>	S/M	S/M	S/M	S/M	0	S/M	1	1	1	1	S/M
DINOFLAGELADOS											
<i>Alexandrium minutum</i>	S/M	S/M	S/M	S/M	0	S/M	0	0	0	0	S/M
<i>Alexandrium monilatum</i>	S/M	S/M	S/M	S/M	0	S/M	0	0	0	0	S/M
<i>Alexandrium ostenfeldii</i>	S/M	S/M	S/M	S/M	0	S/M	0	0	0	0	S/M
<i>Alexandrium peruvianum</i>	S/M	S/M	S/M	S/M	0	S/M	0	0	0	0	S/M
<i>Alexandrium</i> sp.	S/M	S/M	S/M	S/M	0	S/M	0	0	0	0	S/M
<i>Azadinium spinosum</i>	S/M	S/M	S/M	S/M	0	S/M	0	0	0	0	S/M
<i>Cochlodinium polykrikoides</i>	S/M	S/M	S/M	S/M	0	S/M	0	0	0	0	S/M
<i>Dinophysis acuminata</i>	S/M	S/M	S/M	S/M	0	S/M	0	0	0	0	S/M
<i>Dinophysis caudata</i>	S/M	S/M	S/M	S/M	0	S/M	1	1	1	1	S/M
<i>Dinophysis rotundata</i>	S/M	S/M	S/M	S/M	0	S/M	1	1	1	1	S/M
<i>Dinophysis tripos</i>	S/M	S/M	S/M	S/M	0	S/M	1	1	0	0	S/M
<i>Gonyaulax spinifera</i>	S/M	S/M	S/M	S/M	1	S/M	1	1	0	1	S/M
<i>Karenia</i> sp.	S/M	S/M	S/M	S/M	0	S/M	0	0	0	0	S/M
<i>Karlodinium</i> cf. <i>veneficum</i>	S/M	S/M	S/M	S/M	0	S/M	0	0	0	0	S/M
<i>Lingulodinium polyedrum</i>	S/M	S/M	S/M	S/M	0	S/M	0	0	0	0	S/M
<i>Prorocentrum lima</i>	S/M	S/M	S/M	S/M	0	S/M	0	0	0	0	S/M
<i>Prorocentrum minimum</i>	S/M	S/M	S/M	S/M	0	S/M	0	0	0	0	S/M
<i>Protoceratium reticulatum</i>	S/M	S/M	S/M	S/M	0	S/M	0	0	0	0	S/M
<i>Protoperdinium crassipes</i>	S/M	S/M	S/M	S/M	0	S/M	1	1	1	1	S/M
FITOFLAGELADOS											
<i>Heterosigma akashiwo</i>	S/M	S/M	S/M	S/M	0	S/M	0	0	0	0	S/M

Escala relativa de abundancia: Ausente:0, Presente:1, Escaso:2, Abundante:3, Muy Abundante:4

S/M: Sin Monitoreo

Fuente: * Entidad de Apoyo CERPER S.A.

** Entidad de Apoyo ACUILAB S.A.



ORGANISMO NACIONAL DE SANIDAD PESQUERA

SUB DIRECCIÓN DE SUPERVISIÓN ACUÍCOLA

Monitoreo de Fitoplancton Potencialmente Tóxico

Departamento de Piura: Zona 012 Sechura

Análisis Semicuantitativo de Fitoplancton / Abundancia Relativa (células/campo)

2da Semana



Semana: 08 al 14 de noviembre de 2015

Fecha: 14 de noviembre de 2015

ZONAS	012 BAHIA DE SECHURA										
AREAS	SAN PABLO	SAN PEDRO	PLAYA CHUYILLACHI	CHUYILLACHI	MATACABALLO	CONSTANTE	LAS DELICIAS	PARACHIQUE	BARRANCOS	VICHAYO	PUERTO RICO
ESTACION	01-A-SECH	02-A-SECH	03-A-SECH	04-A-SECH	05-B-SECH**	06-A-SECH	07-B-SECH*	08-C-SECH*	09-A-SECH*	10-C-SECH*	11-A-SECH
PROFUNDIDAD (m)	....	....	....	....	0-6	....	0-8	0-9	0-7	0-6	....
TEMPERATURA (°C)	....	....	....	....	19.1	....	19.0	19.2	19.0	18.7	....
DIATOMEAS											
Grupo <i>Pseudo-nitzschia delicatissima</i>	S/M	S/M	S/M	S/M	0	S/M	1	1	1	1	S/M
Grupo <i>Pseudo-nitzschia seriata</i>	S/M	S/M	S/M	S/M	0	S/M	1	1	1	1	S/M
DINOFLAGELADOS											
<i>Alexandrium minutum</i>	S/M	S/M	S/M	S/M	0	S/M	0	0	0	0	S/M
<i>Alexandrium monilatum</i>	S/M	S/M	S/M	S/M	0	S/M	0	0	0	0	S/M
<i>Alexandrium ostenfeldii</i>	S/M	S/M	S/M	S/M	0	S/M	0	0	0	0	S/M
<i>Alexandrium peruvianum</i>	S/M	S/M	S/M	S/M	0	S/M	0	0	0	0	S/M
<i>Alexandrium</i> sp.	S/M	S/M	S/M	S/M	0	S/M	0	0	0	0	S/M
<i>Azadinium spinosum</i>	S/M	S/M	S/M	S/M	0	S/M	0	0	0	0	S/M
<i>Cochlodinium polykrikoides</i>	S/M	S/M	S/M	S/M	0	S/M	0	0	0	0	S/M
<i>Dinophysis acuminata</i>	S/M	S/M	S/M	S/M	0	S/M	0	0	0	0	S/M
<i>Dinophysis caudata</i>	S/M	S/M	S/M	S/M	0	S/M	1	0	1	1	S/M
<i>Dinophysis rotundata</i>	S/M	S/M	S/M	S/M	0	S/M	0	1	0	0	S/M
<i>Dinophysis tripos</i>	S/M	S/M	S/M	S/M	0	S/M	0	0	0	0	S/M
<i>Gonyaulax spinifera</i>	S/M	S/M	S/M	S/M	0	S/M	0	1	1	0	S/M
<i>Karenia</i> sp.	S/M	S/M	S/M	S/M	0	S/M	0	0	0	0	S/M
<i>Karlodinium</i> cf. <i>veneficum</i>	S/M	S/M	S/M	S/M	0	S/M	0	0	0	0	S/M
<i>Lingulodinium polyedrum</i>	S/M	S/M	S/M	S/M	0	S/M	0	0	0	0	S/M
<i>Prorocentrum lima</i>	S/M	S/M	S/M	S/M	0	S/M	0	0	0	0	S/M
<i>Prorocentrum minimum</i>	S/M	S/M	S/M	S/M	0	S/M	1	1	1	1	S/M
<i>Protoceratium reticulatum</i>	S/M	S/M	S/M	S/M	0	S/M	0	0	0	0	S/M
<i>Protoperdinium crassipes</i>	S/M	S/M	S/M	S/M	0	S/M	1	0	1	0	S/M
FITOFLAGELADOS											
<i>Heterosigma akashiwo</i>	S/M	S/M	S/M	S/M	0	S/M	0	0	0	0	S/M

Escala relativa de abundancia: Ausente:0, Presente:1, Escaso:2, Abundante:3, Muy Abundante:4

Fuente: * Entidad de Apoyo CERPER S.A.

** Entidad de Apoyo ACUILAB S.A.

S/M: Sin Monitoreo



ORGANISMO NACIONAL DE SANIDAD PESQUERA

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Monitoreo de Fitoplancton Potencialmente Tóxico

Departamento de Piura: Zona 012 Sechura

Análisis Semicuantitativo de Fitoplancton / Abundancia Relativa (células/campo)

3ra Semana



Semana: 15 al 21 de noviembre de 2015

Fecha: 21 de noviembre de 2015

ZONAS	012 BAHIA DE SECHURA										
AREAS	SAN PABLO	SAN PEDRO	PLAYA CHUYILLACHI	CHUYILLACHI	MATACABALLO	CONSTANTE	LAS DELICIAS	PARACHIQUE	BARRANCOS	VICHAYO	PUERTO RICO
ESTACION	01-A-SECH	02-A-SECH	03-A-SECH	04-A-SECH	05-B-SECH**	06-A-SECH	07-B-SECH*	08-C-SECH*	09-A-SECH*	10-C-SECH*	11-A-SECH
PROFUNDIDAD (m)	....	....	....	....	0-11	....	0-8	0-9	0-8	0-7	....
TEMPERATURA (°C)	....	....	....	....	21.3	....	20.7	21.8	21.8	20.2	....
DIATOMEAS											
Grupo <i>Pseudo-nitzschia delicatissima</i>	S/M	S/M	S/M	S/M	0	S/M	1	1	1	1	S/M
Grupo <i>Pseudo-nitzschia seriata</i>	S/M	S/M	S/M	S/M	1	S/M	1	1	1	1	S/M
DINOFLAGELADOS											
<i>Alexandrium minutum</i>	S/M	S/M	S/M	S/M	0	S/M	0	0	0	0	S/M
<i>Alexandrium monilatum</i>	S/M	S/M	S/M	S/M	0	S/M	0	0	0	0	S/M
<i>Alexandrium ostenfeldii</i>	S/M	S/M	S/M	S/M	0	S/M	0	0	0	0	S/M
<i>Alexandrium peruvianum</i>	S/M	S/M	S/M	S/M	1	S/M	0	0	0	0	S/M
<i>Alexandrium</i> sp.	S/M	S/M	S/M	S/M	0	S/M	0	0	0	0	S/M
<i>Azadinium spinosum</i>	S/M	S/M	S/M	S/M	0	S/M	0	0	0	0	S/M
<i>Cochlodinium polykrioides</i>	S/M	S/M	S/M	S/M	0	S/M	0	0	0	0	S/M
<i>Dinophysis acuminata</i>	S/M	S/M	S/M	S/M	0	S/M	1	1	1	1	S/M
<i>Dinophysis caudata</i>	S/M	S/M	S/M	S/M	0	S/M	1	1	0	0	S/M
<i>Dinophysis rotundata</i>	S/M	S/M	S/M	S/M	0	S/M	1	1	1	1	S/M
<i>Dinophysis tripos</i>	S/M	S/M	S/M	S/M	0	S/M	0	0	0	0	S/M
<i>Gonyaulax spinifera</i>	S/M	S/M	S/M	S/M	0	S/M	0	0	0	0	S/M
<i>Karenia</i> sp.	S/M	S/M	S/M	S/M	0	S/M	0	0	0	0	S/M
<i>Karlodinium</i> cf. <i>veneficum</i>	S/M	S/M	S/M	S/M	0	S/M	0	0	0	0	S/M
<i>Lingulodinium polyedrum</i>	S/M	S/M	S/M	S/M	0	S/M	0	0	0	0	S/M
<i>Prorocentrum lima</i>	S/M	S/M	S/M	S/M	0	S/M	0	0	0	0	S/M
<i>Prorocentrum minimum</i>	S/M	S/M	S/M	S/M	1	S/M	0	0	0	0	S/M
<i>Protoceratium reticulatum</i>	S/M	S/M	S/M	S/M	0	S/M	0	0	0	0	S/M
<i>Protoperdinium crassipes</i>	S/M	S/M	S/M	S/M	0	S/M	1	1	1	1	S/M
FITOFLAGELADOS											
<i>Heterosigma akashiwo</i>	S/M	S/M	S/M	S/M	0	S/M	0	0	0	0	S/M

Escala relativa de abundancia: Ausente:0, Presente:1, Escaso:2, Abundante:3, Muy Abundante:4

S/M: Sin Monitoreo

Fuente: * Entidad de Apoyo CERPER S.A.

** Entidad de Apoyo ACUILAB S.A.



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Monitoreo de Fitoplancton Potencialmente Tóxico

Departamento de Piura: Zona 012 Sechura

Análisis Semicuantitativo de Fitoplancton / Abundancia Relativa (células/campo)

4ta Semana



Semana: 22 al 28 de noviembre de 2015

Fecha: 28 de noviembre de 2015

ZONAS	012 BAHIA DE SECHURA										
AREAS	SAN PABLO	SAN PEDRO	PLAYA CHUYILLACHI	CHUYILLACHI	MATACABALLO	CONSTANTE	LAS DELICIAS	PARACHIQUE	BARRANCOS	VICHAYO	PUERTO RICO
ESTACION	01-A-SECH	02-A-SECH	03-A-SECH	04-A-SECH	05-C-SECH**	06-A-SECH	07-B-SECH*	08-C-SECH*	09-A-SECH*	10-C-SECH*	11-A-SECH
PROFUNDIDAD (m)	....	....	....	....	0-25	....	0-7	0-9	0-7	0-7	....
TEMPERATURA (°C)	....	....	....	....	22.3	....	21.4	21.6	20.5	20.8	....
DIATOMEAS											
Grupo <i>Pseudo-nitzschia delicatissima</i>	S/M	S/M	S/M	S/M	1	S/M	1	1	1	1	S/M
Grupo <i>Pseudo-nitzschia seriata</i>	S/M	S/M	S/M	S/M	1	S/M	1	1	1	1	S/M
DINOFLAGELADOS											
<i>Alexandrium minutum</i>	S/M	S/M	S/M	S/M	0	S/M	0	0	0	0	S/M
<i>Alexandrium monilatum</i>	S/M	S/M	S/M	S/M	0	S/M	0	0	0	0	S/M
<i>Alexandrium ostenfeldii</i>	S/M	S/M	S/M	S/M	1	S/M	0	0	0	0	S/M
<i>Alexandrium peruvianum</i>	S/M	S/M	S/M	S/M	0	S/M	0	0	0	0	S/M
<i>Alexandrium</i> sp.	S/M	S/M	S/M	S/M	0	S/M	0	0	0	0	S/M
<i>Azadinium spinosum</i>	S/M	S/M	S/M	S/M	0	S/M	0	0	0	0	S/M
<i>Cochlodinium polykrikoides</i>	S/M	S/M	S/M	S/M	0	S/M	0	0	0	0	S/M
<i>Dinophysis acuminata</i>	S/M	S/M	S/M	S/M	0	S/M	1	1	1	1	S/M
<i>Dinophysis caudata</i>	S/M	S/M	S/M	S/M	0	S/M	1	0	1	0	S/M
<i>Dinophysis rotundata</i>	S/M	S/M	S/M	S/M	0	S/M	1	1	1	0	S/M
<i>Dinophysis tripos</i>	S/M	S/M	S/M	S/M	0	S/M	0	0	0	0	S/M
<i>Gonyaulax spinifera</i>	S/M	S/M	S/M	S/M	0	S/M	1	1	1	1	S/M
<i>Karenia</i> sp.	S/M	S/M	S/M	S/M	0	S/M	0	0	0	0	S/M
<i>Karlodinium</i> cf. <i>veneficum</i>	S/M	S/M	S/M	S/M	0	S/M	0	0	0	0	S/M
<i>Lingulodinium polyedrum</i>	S/M	S/M	S/M	S/M	0	S/M	0	0	0	0	S/M
<i>Prorocentrum lima</i>	S/M	S/M	S/M	S/M	0	S/M	0	0	0	0	S/M
<i>Prorocentrum minimum</i>	S/M	S/M	S/M	S/M	0	S/M	0	0	0	0	S/M
<i>Protoceratium reticulatum</i>	S/M	S/M	S/M	S/M	0	S/M	0	0	0	0	S/M
<i>Protoperdinium crassipes</i>	S/M	S/M	S/M	S/M	0	S/M	1	1	1	0	S/M
FITOFLAGELADOS											
<i>Heterosigma akashiwo</i>	S/M	S/M	S/M	S/M	0	S/M	0	0	0	0	S/M

Escala relativa de abundancia: Ausente:0, Presente:1, Escaso:2, Abundante:3, Muy Abundante:4

S/M: Sin Monitoreo

Fuente: * Entidad de Apoyo CERPER S.A.

** Entidad de Apoyo ACUILAB S.A.



ORGANISMO NACIONAL DE SANIDAD PESQUERA

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Monitoreo de Fitoplancton Potencialmente Tóxico

Departamento de Piura: Zona 012 Sechura

Análisis Semicuantitativo de Fitoplancton / Abundancia Relativa (células/campo)

5ta Semana



Semana: 29 de noviembre al 05 de diciembre de 2015

Fecha: 05 de diciembre de 2015

ZONAS	012 BAHIA DE SECHURA										
AREAS	SAN PABLO	SAN PEDRO	PLAYA CHUYILLACHI	CHUYILLACHI	MATACABALLO	CONSTANTE	LAS DELICIAS	PARACHIQUE	BARRANCOS	VICHAYO	PUERTO RICO
ESTACION	01-A-SECH	02-A-SECH	03-A-SECH	04-A-SECH	05-C-SECH**	06-A-SECH	07-B-SECH*	08-C-SECH*	09-A-SECH*	10-C-SECH*	11-A-SECH
PROFUNDIDAD (m)	....	....	....	....	0-25	....	0-7	0-9	0-7	0-7	....
TEMPERATURA (°C)	....	....	....	....	24.2	....	22.2	23.0	21.9	21.7	....
DIATOMEAS											
Grupo <i>Pseudo-nitzschia delicatissima</i>	S/M	S/M	S/M	S/M	1	S/M	1	1	1	1	S/M
Grupo <i>Pseudo-nitzschia seriata</i>	S/M	S/M	S/M	S/M	2	S/M	1	1	1	1	S/M
DINOFLAGELADOS											
<i>Alexandrium minutum</i>	S/M	S/M	S/M	S/M	0	S/M	0	0	0	0	S/M
<i>Alexandrium monilatum</i>	S/M	S/M	S/M	S/M	0	S/M	0	0	0	0	S/M
<i>Alexandrium ostenfeldii</i>	S/M	S/M	S/M	S/M	0	S/M	0	0	0	0	S/M
<i>Alexandrium peruvianum</i>	S/M	S/M	S/M	S/M	0	S/M	0	0	0	0	S/M
<i>Alexandrium</i> sp.	S/M	S/M	S/M	S/M	0	S/M	0	0	0	0	S/M
<i>Azadinium spinosum</i>	S/M	S/M	S/M	S/M	0	S/M	0	0	0	0	S/M
<i>Cochlodinium polykrikoides</i>	S/M	S/M	S/M	S/M	0	S/M	0	0	0	0	S/M
<i>Dinophysis acuminata</i>	S/M	S/M	S/M	S/M	0	S/M	1	1	1	1	S/M
<i>Dinophysis caudata</i>	S/M	S/M	S/M	S/M	0	S/M	1	0	1	1	S/M
<i>Dinophysis rotundata</i>	S/M	S/M	S/M	S/M	0	S/M	0	1	1	0	S/M
<i>Dinophysis tripos</i>	S/M	S/M	S/M	S/M	0	S/M	0	0	0	0	S/M
<i>Gonyaulax spinifera</i>	S/M	S/M	S/M	S/M	0	S/M	1	1	1	0	S/M
<i>Karenia</i> sp.	S/M	S/M	S/M	S/M	0	S/M	0	0	0	0	S/M
<i>Karlodinium</i> cf. <i>veneficum</i>	S/M	S/M	S/M	S/M	0	S/M	0	0	0	0	S/M
<i>Lingulodinium polyedrum</i>	S/M	S/M	S/M	S/M	0	S/M	0	0	0	0	S/M
<i>Prorocentrum lima</i>	S/M	S/M	S/M	S/M	0	S/M	0	0	0	0	S/M
<i>Prorocentrum minimum</i>	S/M	S/M	S/M	S/M	0	S/M	1	1	1	1	S/M
<i>Protoceratium reticulatum</i>	S/M	S/M	S/M	S/M	0	S/M	0	0	0	0	S/M
<i>Protoperdinium crassipes</i>	S/M	S/M	S/M	S/M	0	S/M	1	1	1	1	S/M
FITOFLAGELADOS											
<i>Heterosigma akashiwo</i>	S/M	S/M	S/M	S/M	0	S/M	0	0	0	0	S/M

Escala relativa de abundancia: Ausente:0, Presente:1, Escaso:2, Abundante:3, Muy Abundante:4

S/M: Sin Monitoreo

Fuente: * Entidad de Apoyo CERPER S.A.

** Entidad de Apoyo ACUILAB S.A.