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**CATALOGO DE DATOS
OCEANOGRAFICOS (T, S y O₂) POR
ESTACIONES DEL AÑO EN DIFERENTES
PROFUNDIDADES FRENTE A LA COSTA
PERUANA, PERIODO 1970-1985**

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FRENTE A LA COSTA PERUANA, PERIODO 1970-1985**

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RESUMEN

Se presenta información básica de temperatura, salinidad y oxígeno, en cartas horizontales, a los niveles de 0 - 50 - 100 y 200 m de profundidad, promediados por cuadrados Marsden y por estaciones de cada año entre 1970-1985. La información fue obtenida de 55 cruceros nacionales y 29 cruceros internacionales (los últimos tomando datos además a profundidades mayores de 200 m), comprendidos entre las latitudes 1°S - 20°S y entre la costa y la longitud 86°W.

ABSTRACT

Basic information about temperature, salinity and oxygen is presented in horizontal maps for 0 - 50 - 100 and 200 m depth levels, averaged for Marsden-quadrats and seasons of each year between 1970-1985. The information was obtained from 55 national cruises and 29 international cruises, (in the latter of which data were also taken in depths greater than 200 m) between latitudes 1°S - 20°S and between the coast and longitud 86°W.

1. INTRODUCCION

La temperatura, la salinidad y el oxígeno son parámetros limitantes en la distribución y abundancia de los recursos vivos del mar, por lo cual es importante conocer sus variaciones temporales y espaciales.

Para las aguas costeras del Perú contamos con algunos mapas y cartas mensuales y estacionales, los cuales mayormente corresponden a los años antes de 1970.

En este trabajo se presentan cartas horizontales de temperatura, salinidad y oxígeno a los niveles de 0 - 50 - 100 y 200 m de profundidad por cuadrados Marsden de 1° y por estaciones del año correspondientes a 1970-1985.

2. MATERIAL Y METODOS

Se colectaron todos los datos disponibles de temperatura (°C), salinidad (‰) y oxígeno (ml/l), pertenecientes a 55 cruceros oceanográficos nacionales y 29 extranjeros. Mientras que durante los cruceros nacionales sólo se tomaron datos

hasta profundidades de 200 m, en los cruceros extranjeros se obtuvieron datos de mayores profundidades. Se evaluó el área comprendida entre las latitudes de 1°S y 20°S y entre la costa peruana y la longitud 86°W. Las fuentes de datos usados se dan en las listas A y B.

En la Fig. 1 se muestra la distribución de los cuadrados de 10° y 1° Marsden para el área frente al Perú, de acuerdo al sistema internacional. El sistema seguido en los promedios por cuadrados de 1° Marsden consistió en encontrar primero el promedio mensual y con estos los estacionales para cada año (1970-1985) y para cada profundidad (0 - 50 - 100 y 200 m). El término estacional se refiere a las estaciones anuales del Hemisferio Sur, es decir, enero a marzo para el verano, abril a junio para el otoño, julio a setiembre para el invierno y octubre a diciembre para la primavera.

3. AGRADECIMIENTOS

Agradecemos a la Srta. María Elena Viñas por su colaboración en el procesamiento de los datos y al Sr. Franklin Méndez por la preparación de los gráficos y sus reducciones.

4. LISTA DE LAS FUENTES DE DATOS

A) Cruceros Nacionales

AÑO	MES	BARCO	CRUCERO	FUENTE
1970	5	BIC SNP-1	7005	IMARPE
	9	UNANUE	7009	IMARPE
	11, 12	UNANUE	7011	IMARPE
1971	4, 5	BIC SNP-1	7104	IMARPE
	5, 6	UNANUE	7105	IMARPE
	8, 9	UNANUE	7108	IMARPE
	11	UNANUE	7111	IMARPE
	11, 12	BIC SNP-1	7111	IMARPE
1972	1	BIC SNP-1	7201	IMARPE
	2, 3	UNANUE	7202	IMARPE
	3, 4	UNANUE	7203	IMARPE
	6, 7	UNANUE	7206	IMARPE
	11, 12	UNANUE	7211	IMARPE
1973	2, 3	UNANUE	7302	IMARPE
1974	2	BIC SNP-1	7402	IMARPE
	3	BIC SNP-1	7403	IMARPE
	5, 6	BIC SNP-1	7405	IMARPE
1975	4	BIC SNP-1	7504	IMARPE
	6, 7	BIC SNP-1	7506	IMARPE
	11, 12	UNANUE	7511	IMARPE
1976	4	BIC SNP-1	7604	IMARPE
	7	BIC SNP-1	7607	IMARPE
	8	UNANUE	7608	IMARPE
	12	UNANUE	7612	IMARPE
1977	3, 4, 5	UNANUE	ESACAN	IMARPE
1979	1, 2	UNANUE	7901	IMARPE
	1, 2	BIC SNP-1	7901	IMARPE
	5, 6	BIC SNP-1	7905	IMARPE
1980	8, 9	BIC SNP-1	8008	IMARPE
	8, 9	BIC HUMBOLDI	8008	IMARPE
	12	BIC HUMBOLDI	8012	IMARPE

A) Cruceros Nacionales, continuado

ANO	MES	BARCO	CRUCERO	FUENTE
1981	2, 3	BIC SNP-1	8102	IMARPE
	5, 6	BIC HUMBOLDT	8105	IMARPE
	8, 9	BIC SNP-1	8108	IMARPE
1982	1	BIC SNP-1	8201	IMARPE
	2	BIC HUMBOLDT	8202	IMARPE
	11, 12	BIC HUMBOLDT	8211	IMARPE
	11, 12	UNANUE	8211	IMARPE
	12	BIC HUMBOLDT	8212	IMARPE
1983	1	UNANUE	8301	IMARPE
	1, 2	BIC HUMBOLDT	8301	IMARPE
	3, 4, 5	BIC HUMBOLDT	8303	IMARPE
	10	BIC HUMBOLDT	8310	IMARPE
	11, 12	BIC HUMBOLDT	8311	IMARPE
1984	7	BIC HUMBOLDT	8406	IMARPE
	6, 7	BIC SNP-1	8406	IMARPE
	8	BIC SNP-1	8408	IMARPE
	8, 9	BIC HUMBOLDT	8408	IMARPE
1985	1, 2	BIC HUMBOLDT	8501	IMARPE
	3, 4	BIC SNP-1	8503	IMARPE
	3, 4, 5	BIC HUMBOLDT	8503	IMARPE
	7, 8	BIC SNP-1	8507	IMARPE
	8, 9, 10	BIC HUMBOLDT	8508	IMARPE
	11	BIC SNP-1	8511	IMARPE
	12	BAP MELO	8512	IMARPE

B) Cruceros o Expediciones Extranjeras

AÑO	MES	BARCO	CRUCERO	PAIS
1971	10	B/P Chatyr-Dag	7109	USSR
1972	7	B/P Mesyatsev	7207	USSR
	8	B/P Mesyatsev	7208	USSR
	9	B/P Mesyatsev	7209	USSR
	10, 11, 12	B/P Mesyatsev	7210	USSR
1973	5, 6	B/P Mesyatsev	7305	USSR
1975	2, 3, 4, 5	B/V Moana Wave	El Niño Watch-75	USA
1976	4, 5	R/V Thompson	TT - 108 Leg 1	USA
	5, 6	R/V Thompson	TT - 108 Leg 2	USA
	8, 9	R/V Eastward	E - 5F - 76 Leg 2	USA
	9, 10	R/V Eastward	E - 5I - 76 Leg 3	USA
1977	3	R/V Mellville	Joint - II Leg 1	USA
	11	R/V Baffin	77-030 Leg 4a	USA
1978	2, 3	R/V Korr	73	USA
	3	R/V Mendaleev	20 th	USSR
1979	12	R/V Siedlecki	7912	POLONIA
1980	1	R/V Siedlecki	8001	POLONIA
	3, 4	R/V Siedlecki	8003	POLONIA
1981	11, 12	R/V Researcher	R 103	USA
1982	2	R/V Discoverer	EPDCS	USA
1983	2	R/V Wecoma	Leg 2	USA
	3	R/V Wecoma	Leg 3	USA
	6	R/V Researcher		USA
	11	R/V Endeavor	KN - 95	USA
	12	R/V Endeavor	KN - 95	USA
	12	R/V Endeavor	EN - 110	USA
1985	2, 3	R/V Wecoma	85 - 1	USA
	3	R/V Wecoma	Weloc - 85 Leg 2	USA
	4	R/V Wecoma	Weloc - 85 Leg 3	USA

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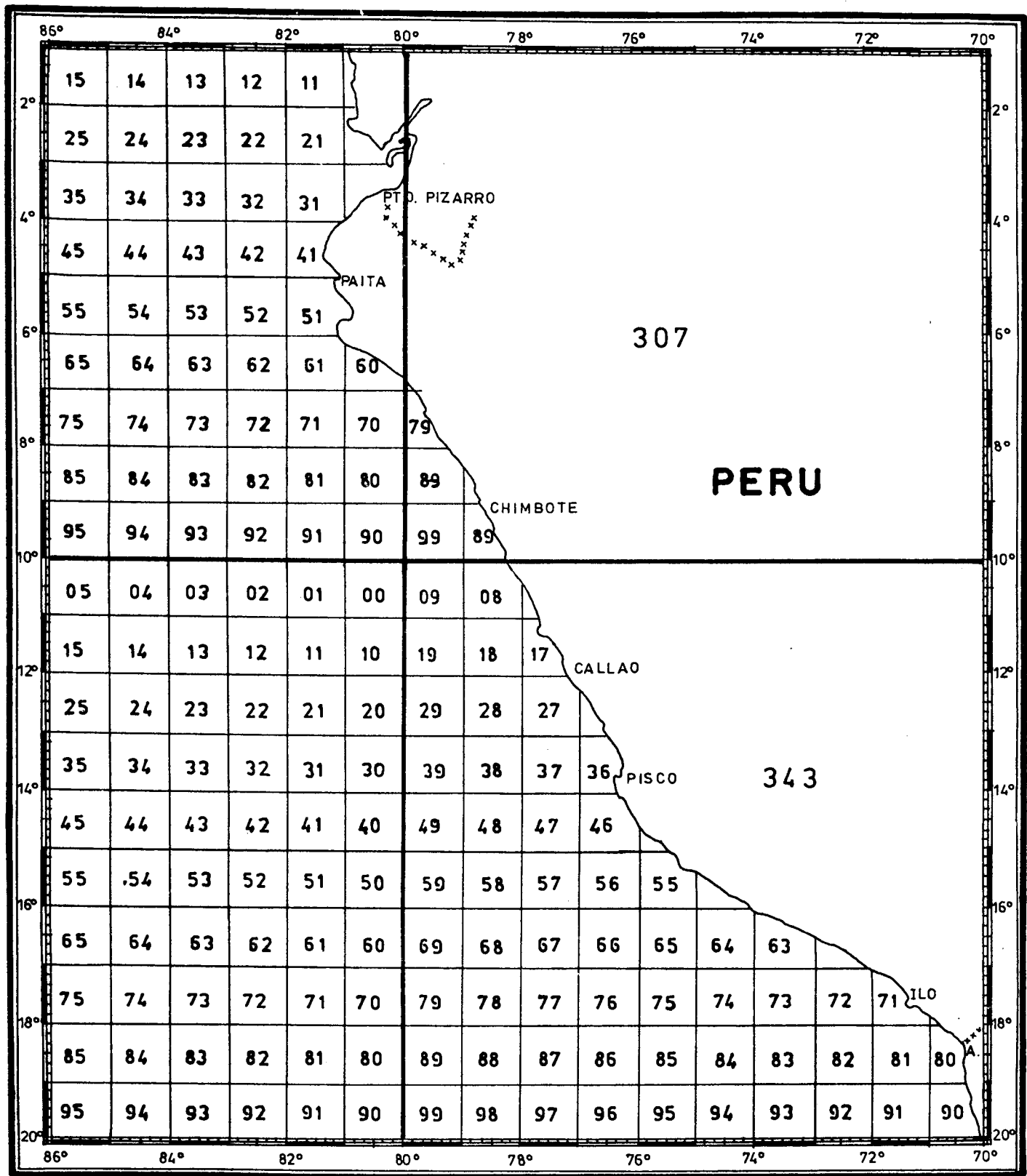
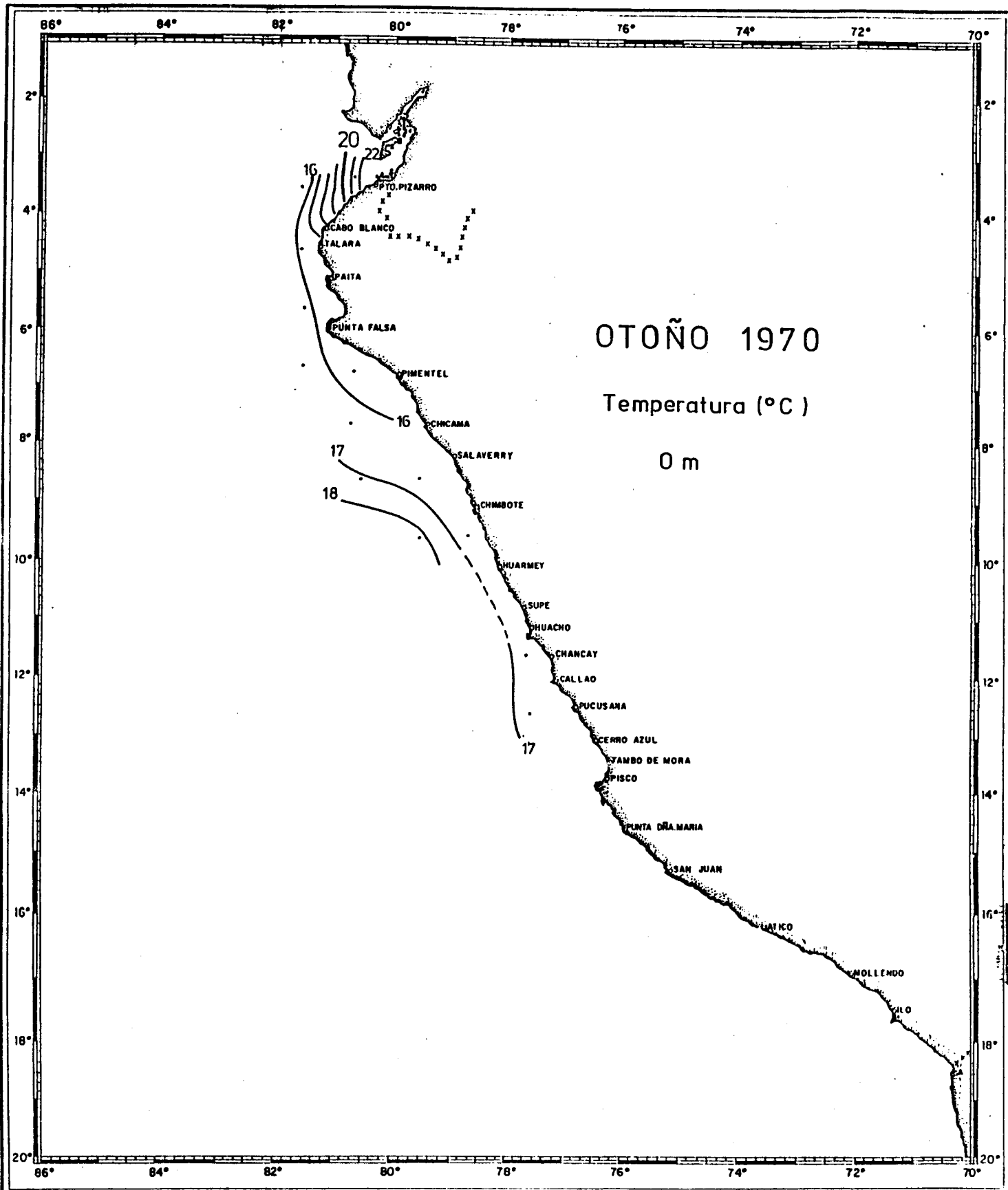
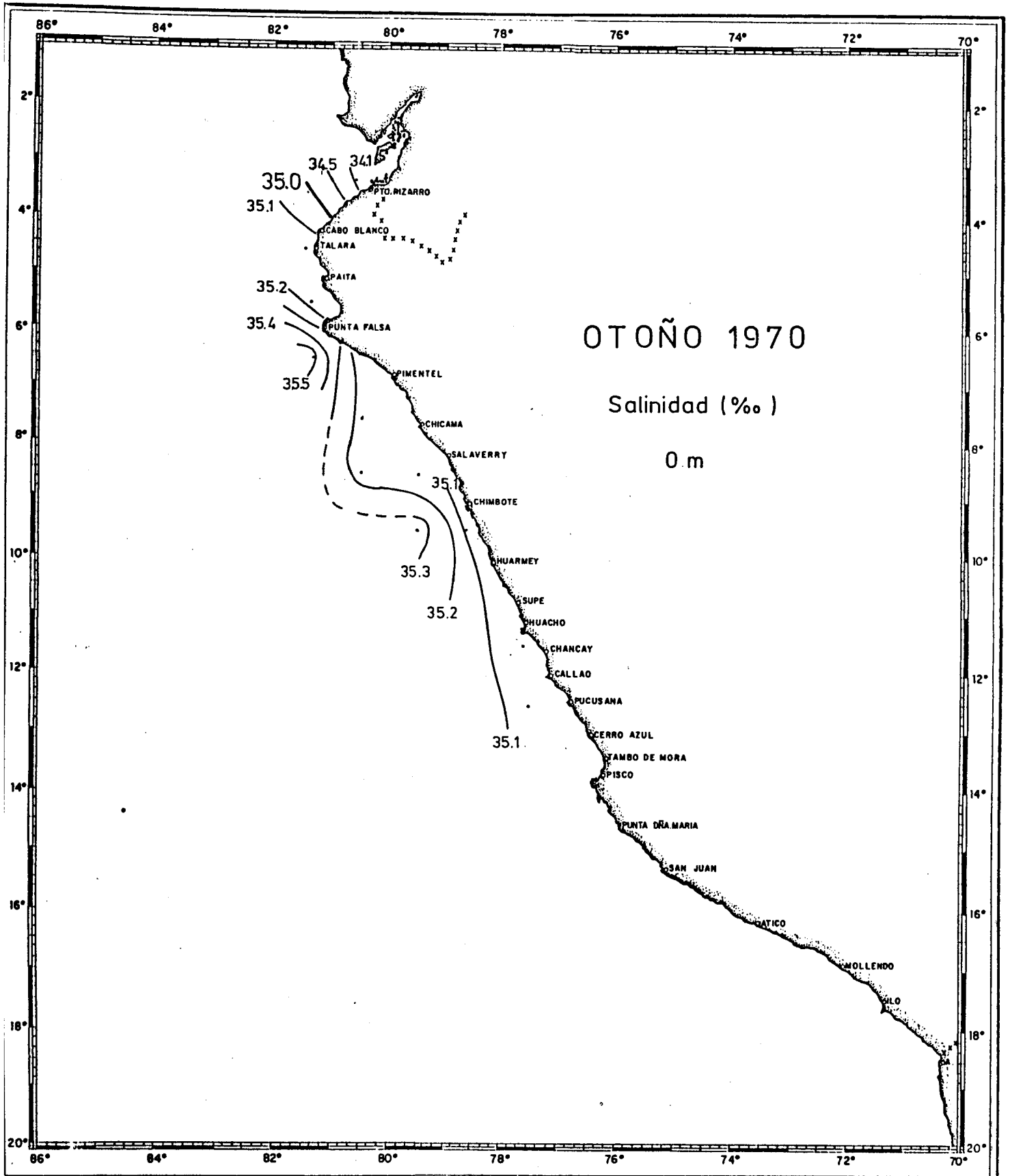
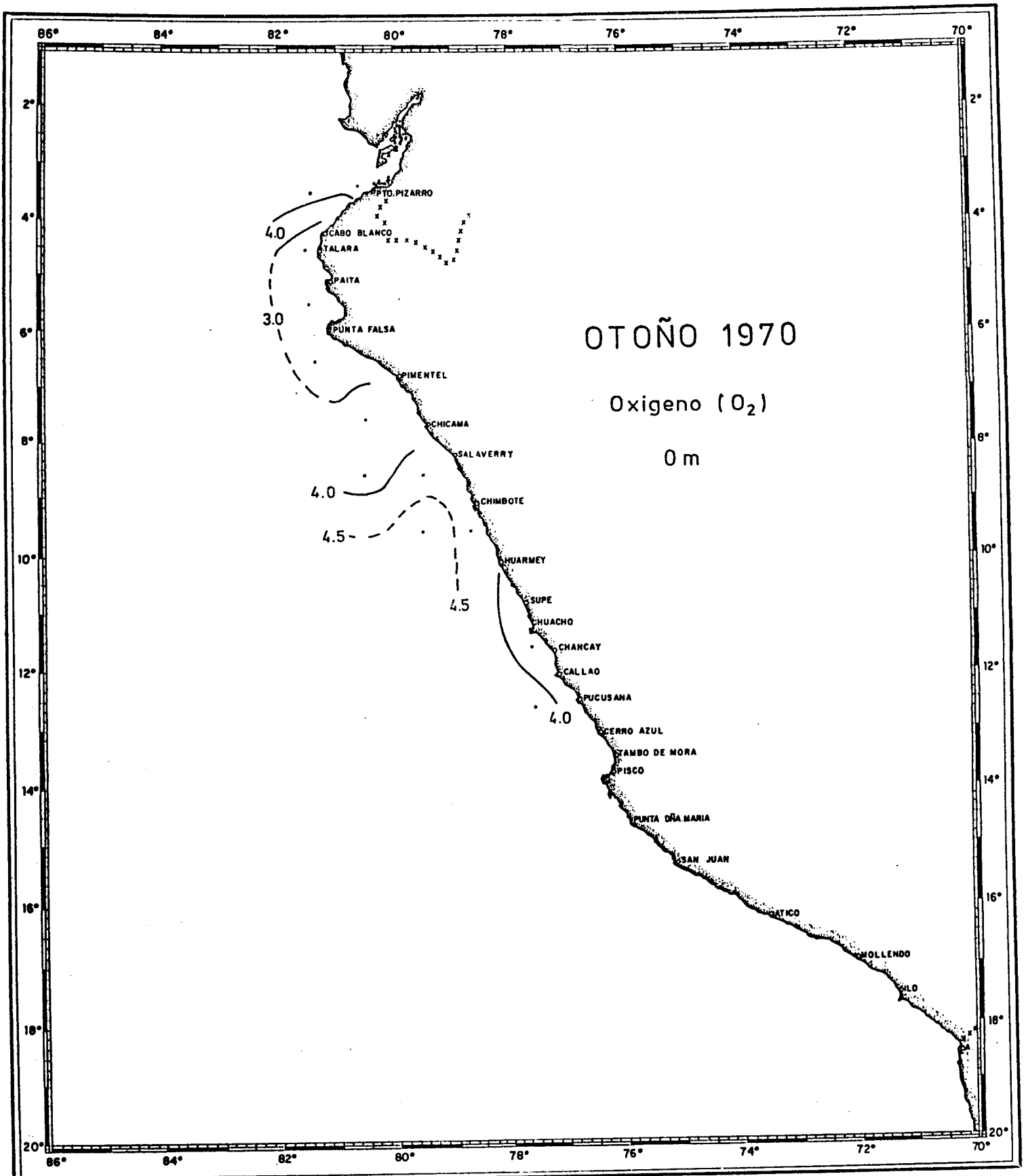
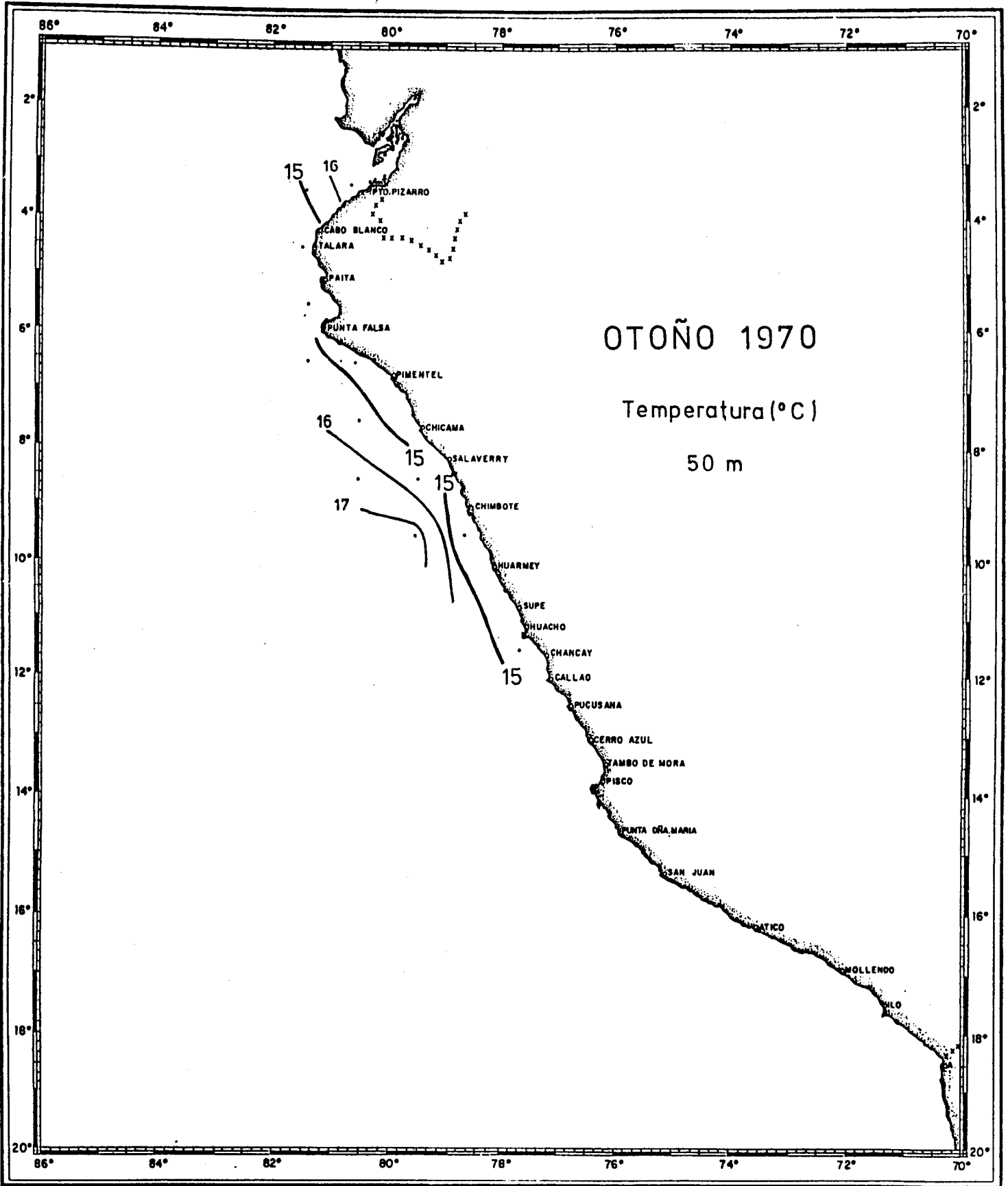


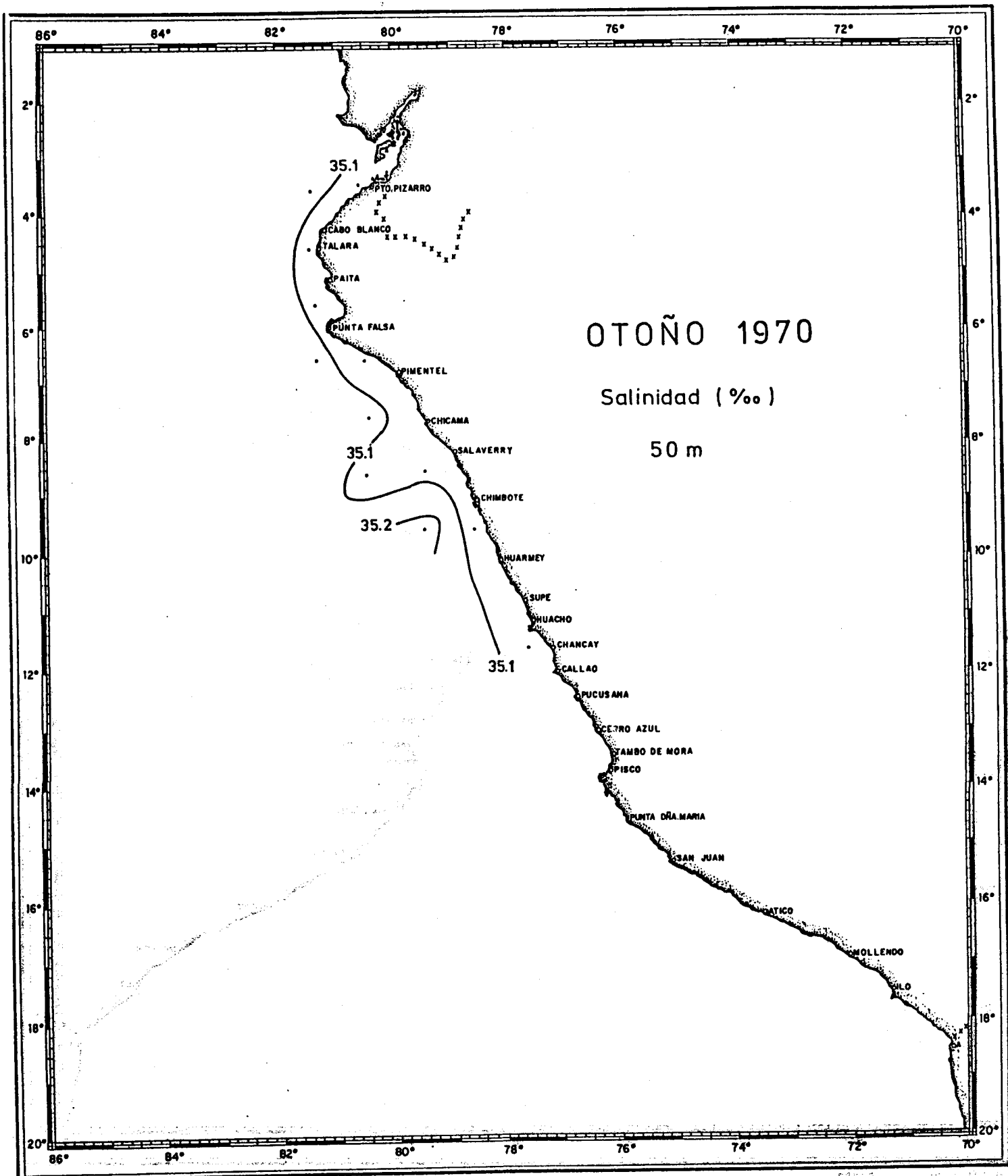
Fig. 1. Cuadrados de 10° y 1° Marsden

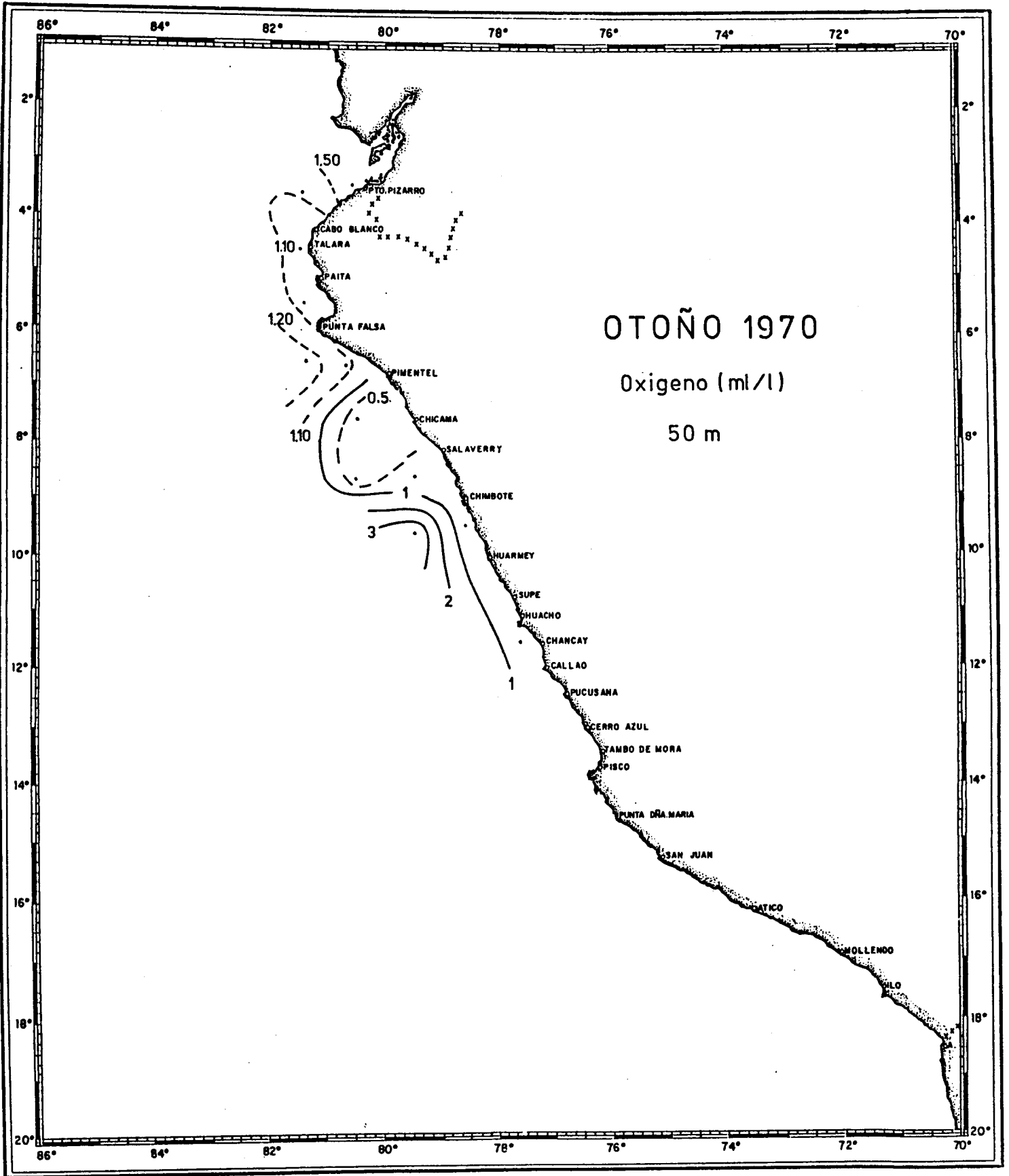


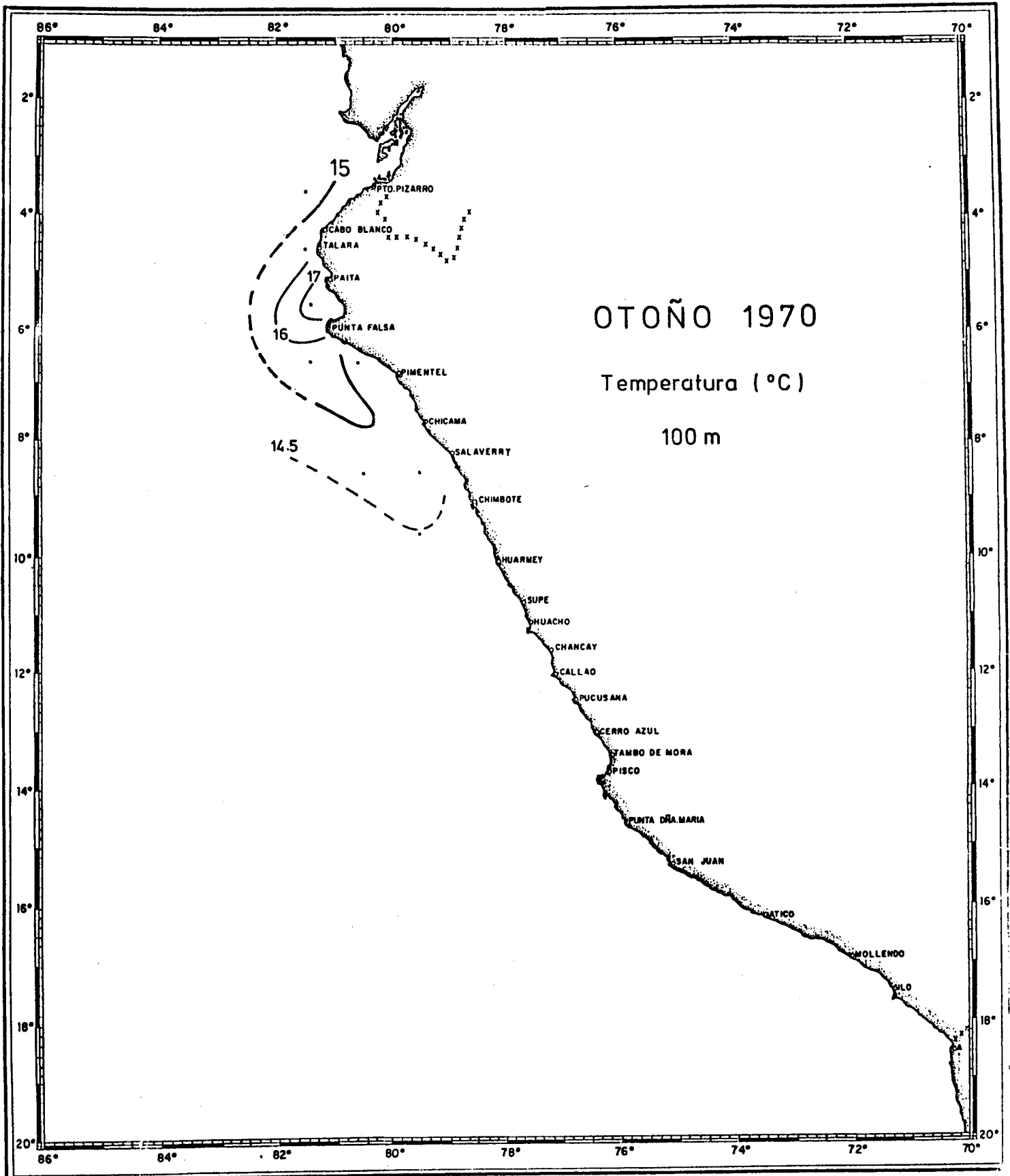


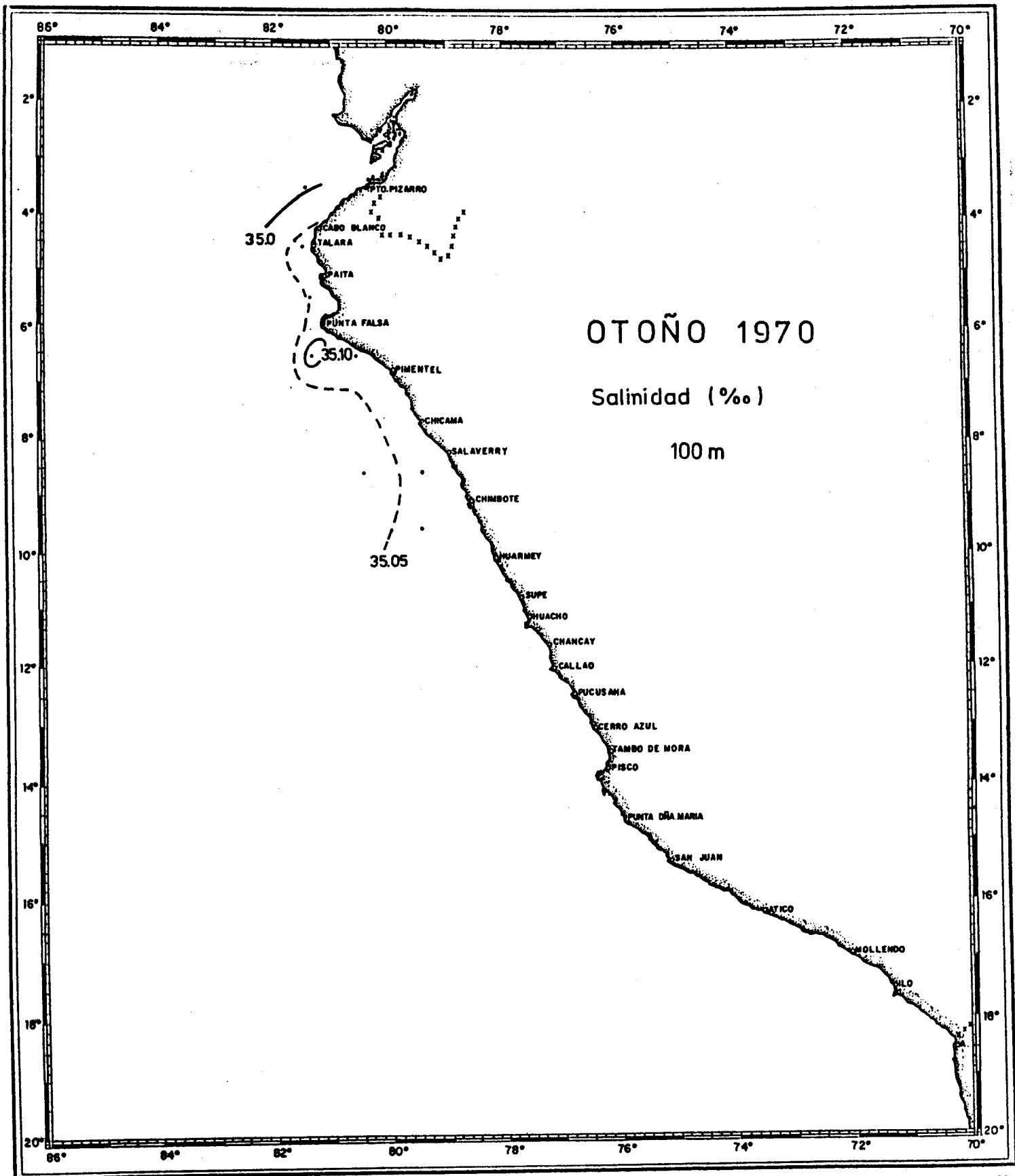


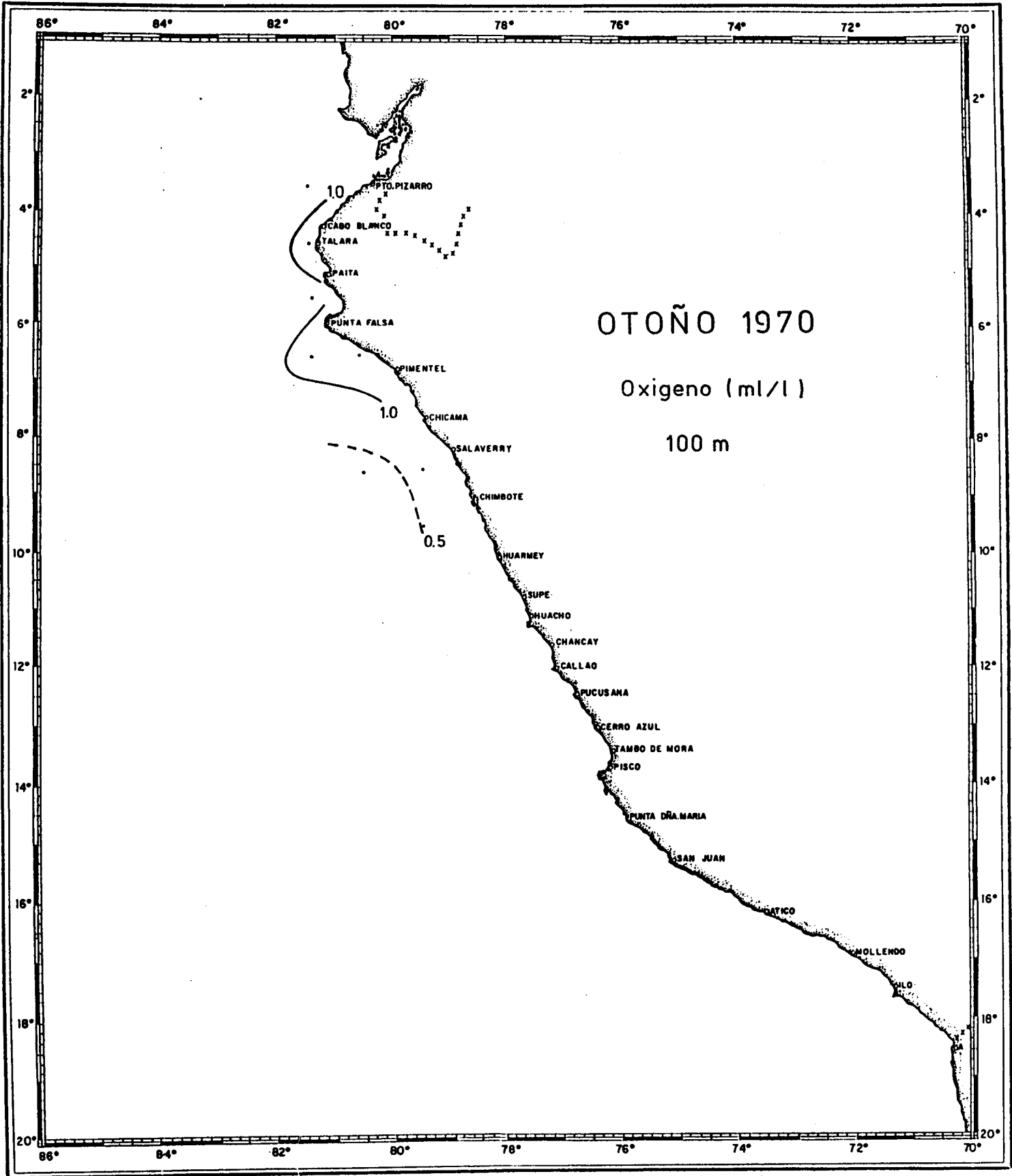


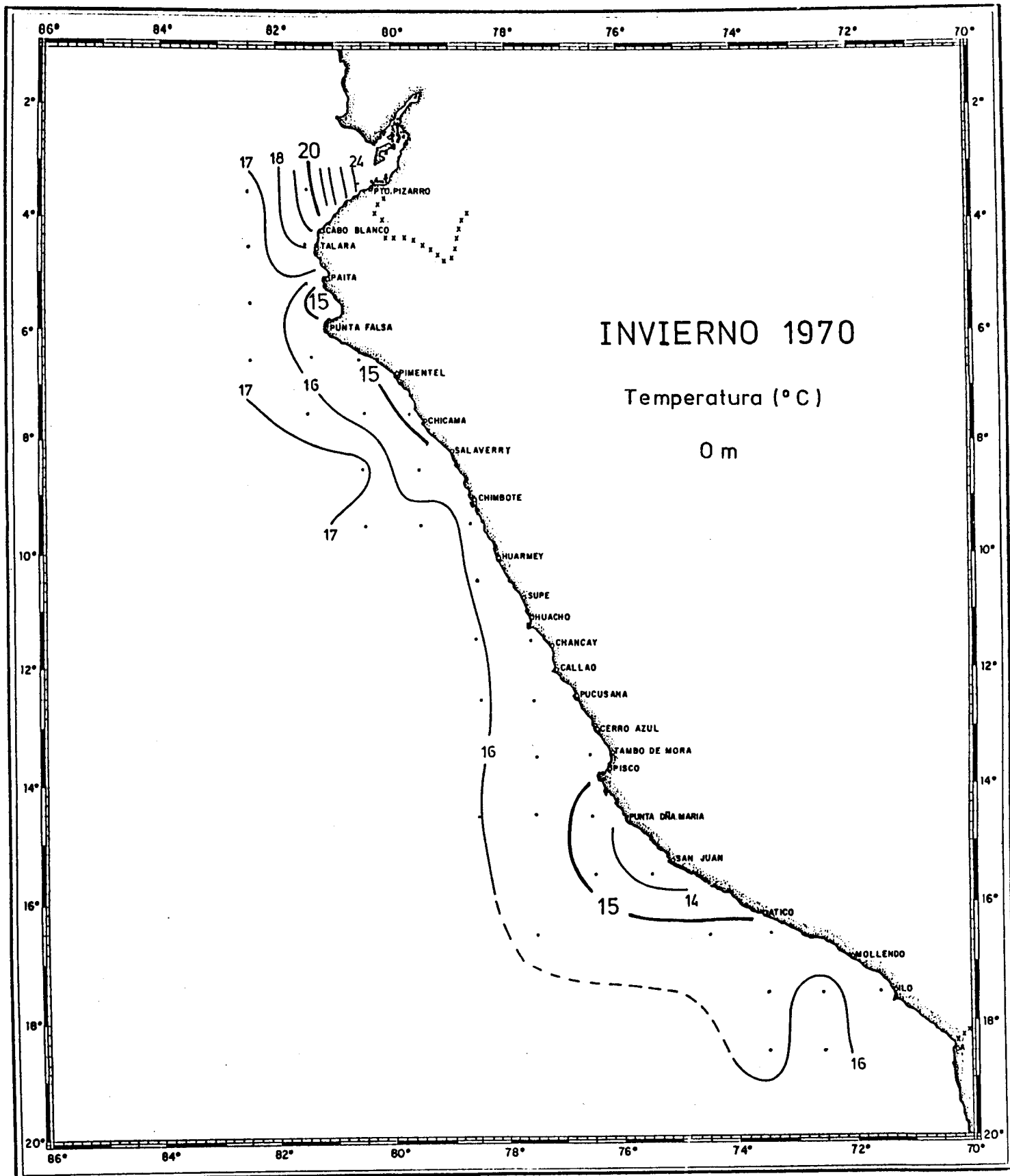


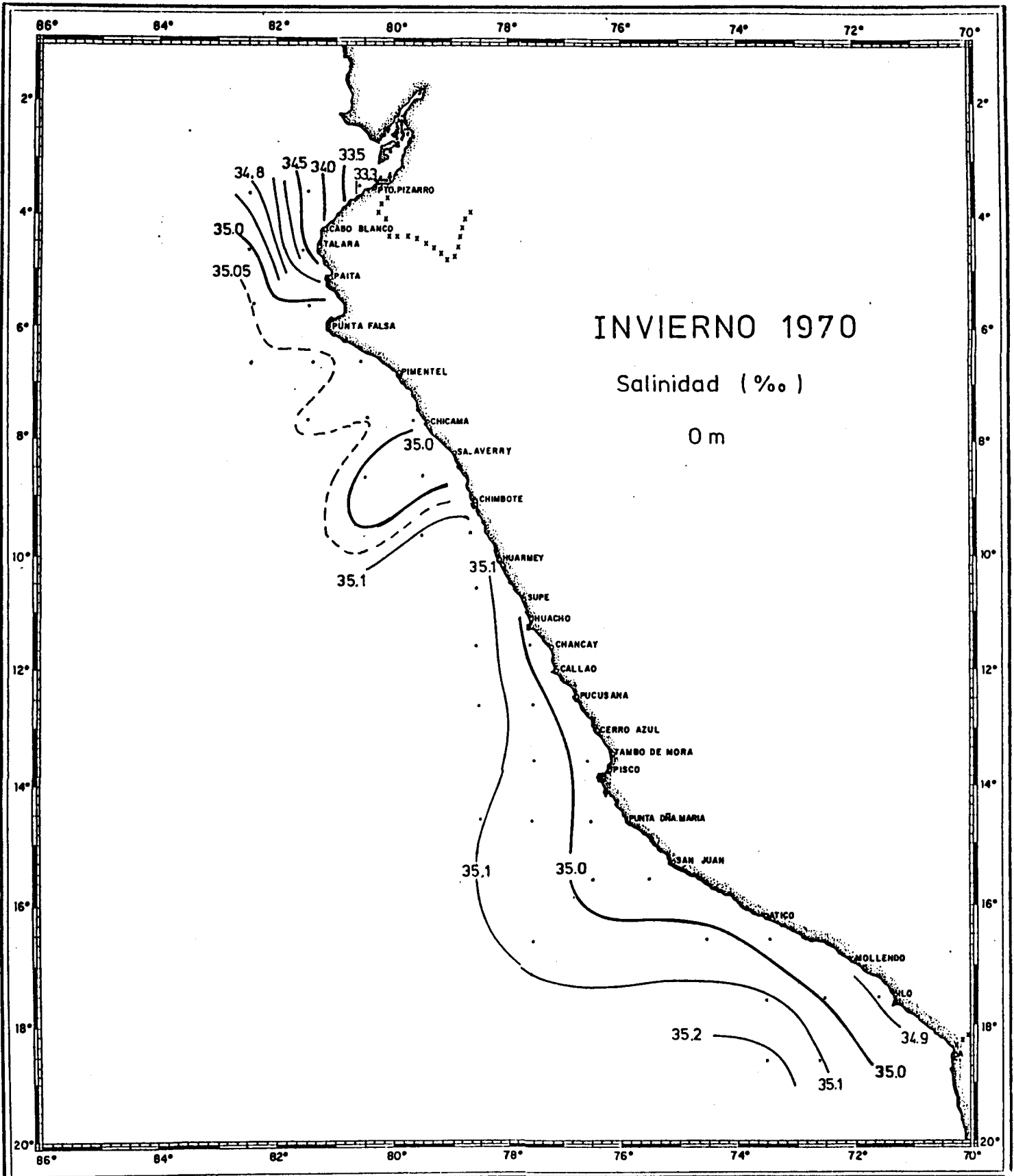


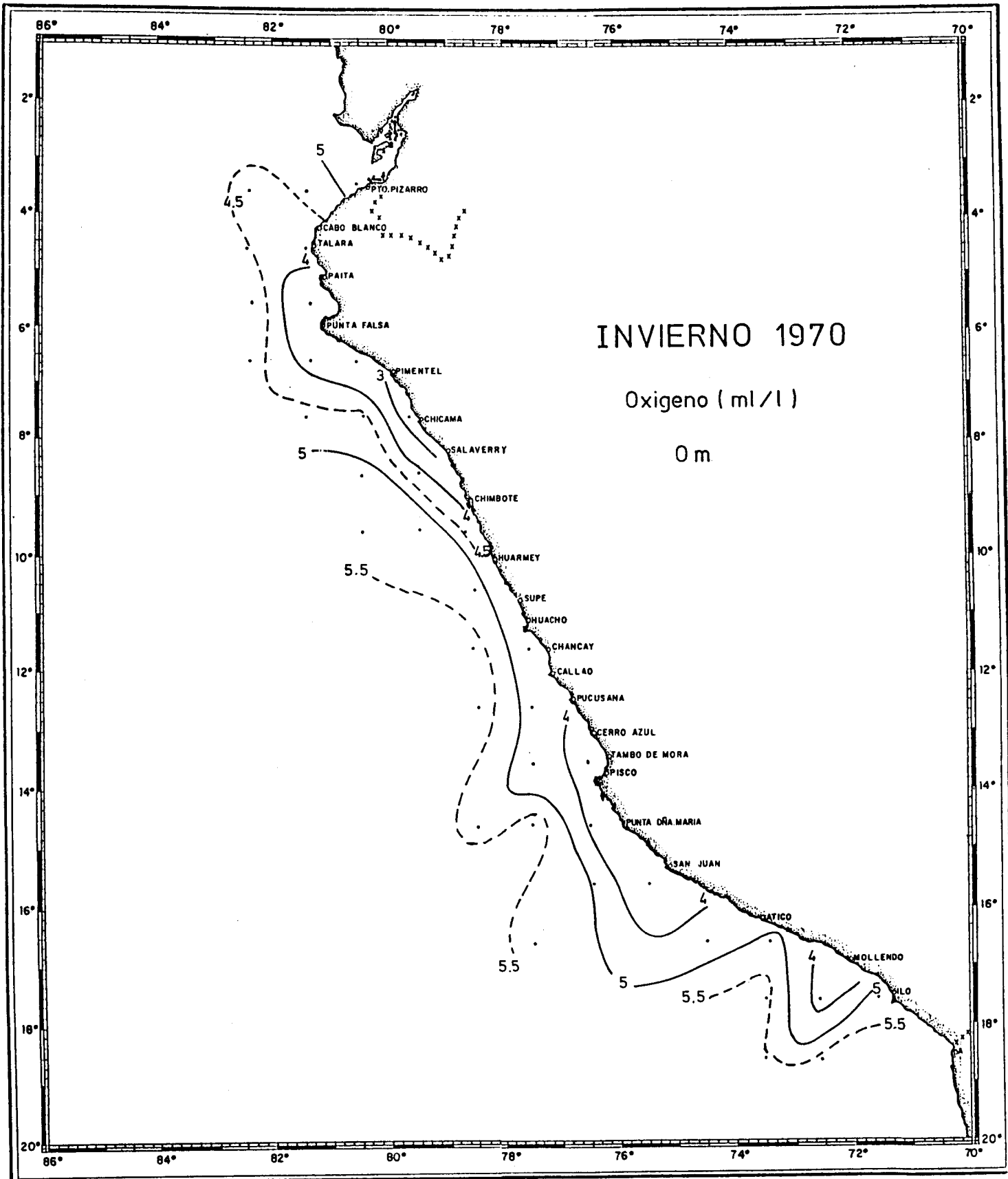


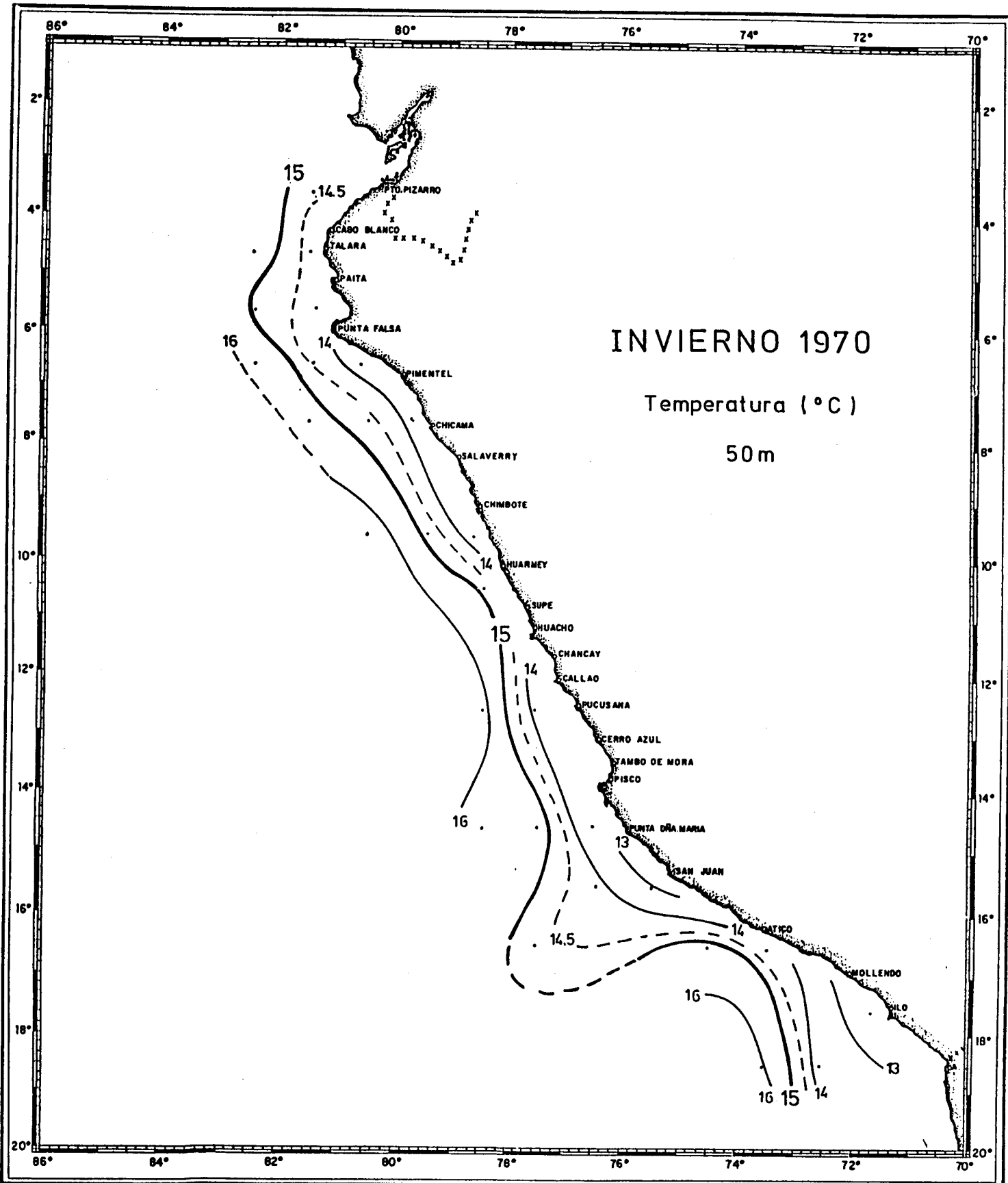








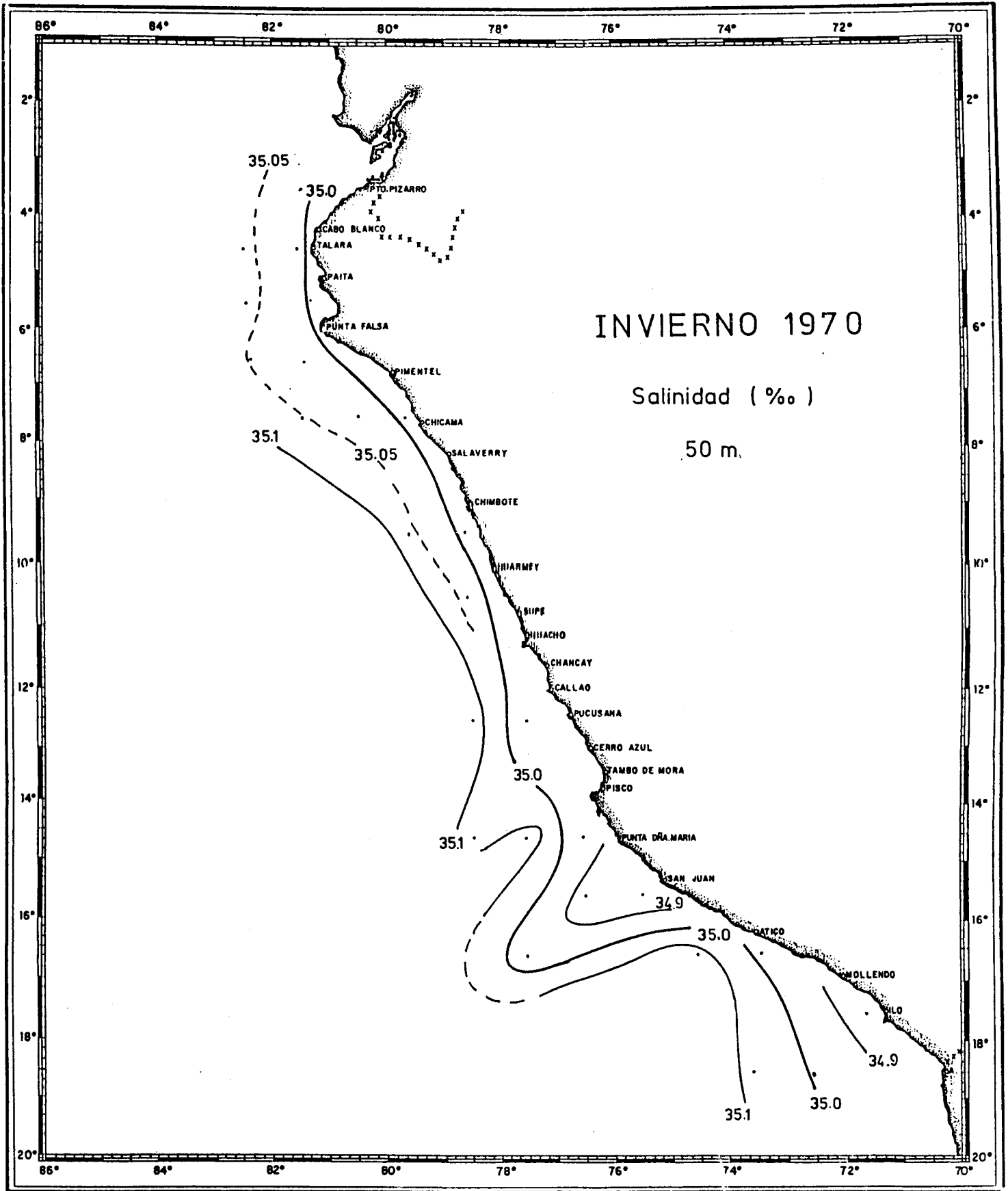


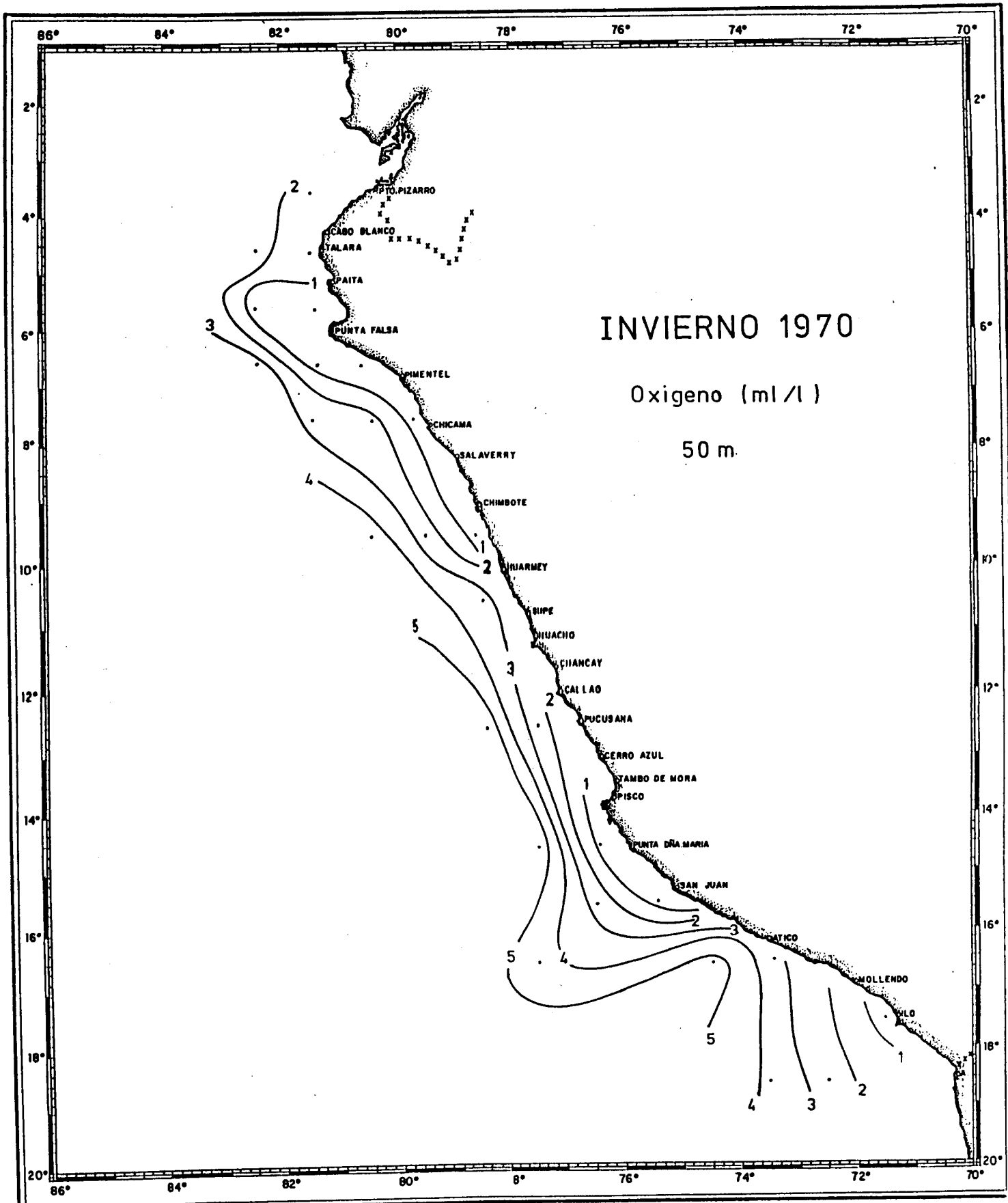


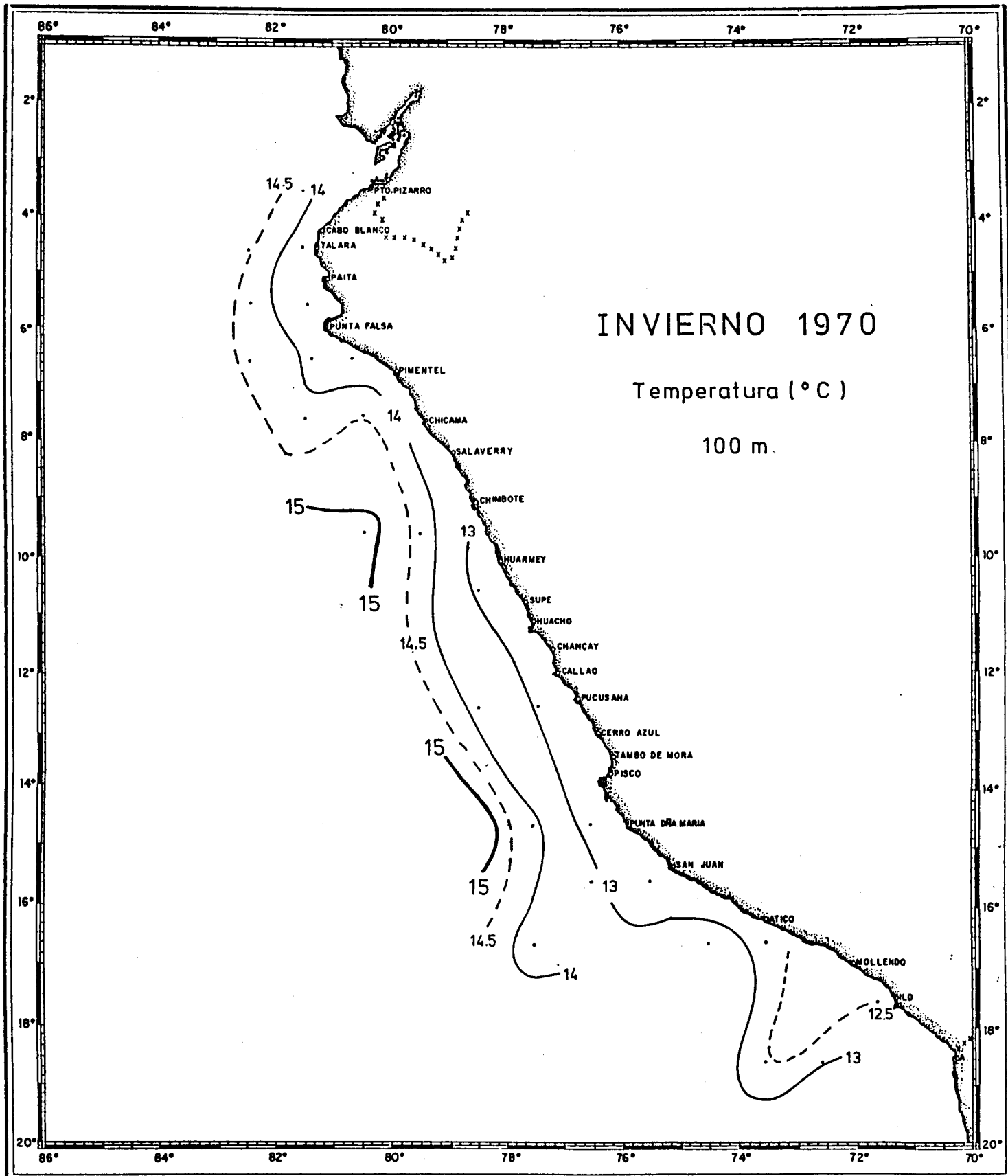
INVIERNO 1970

Temperatura (°C)

50m



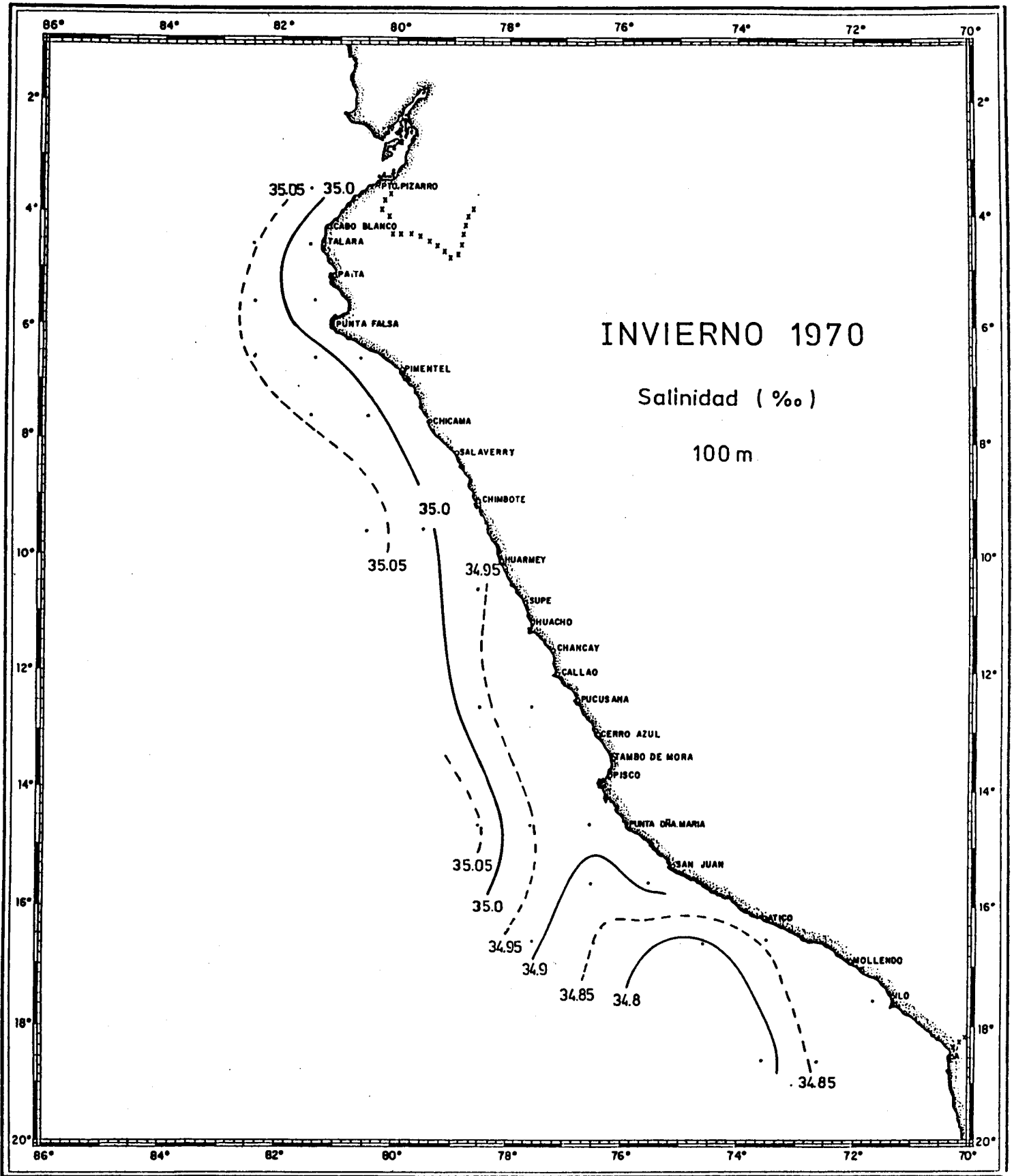


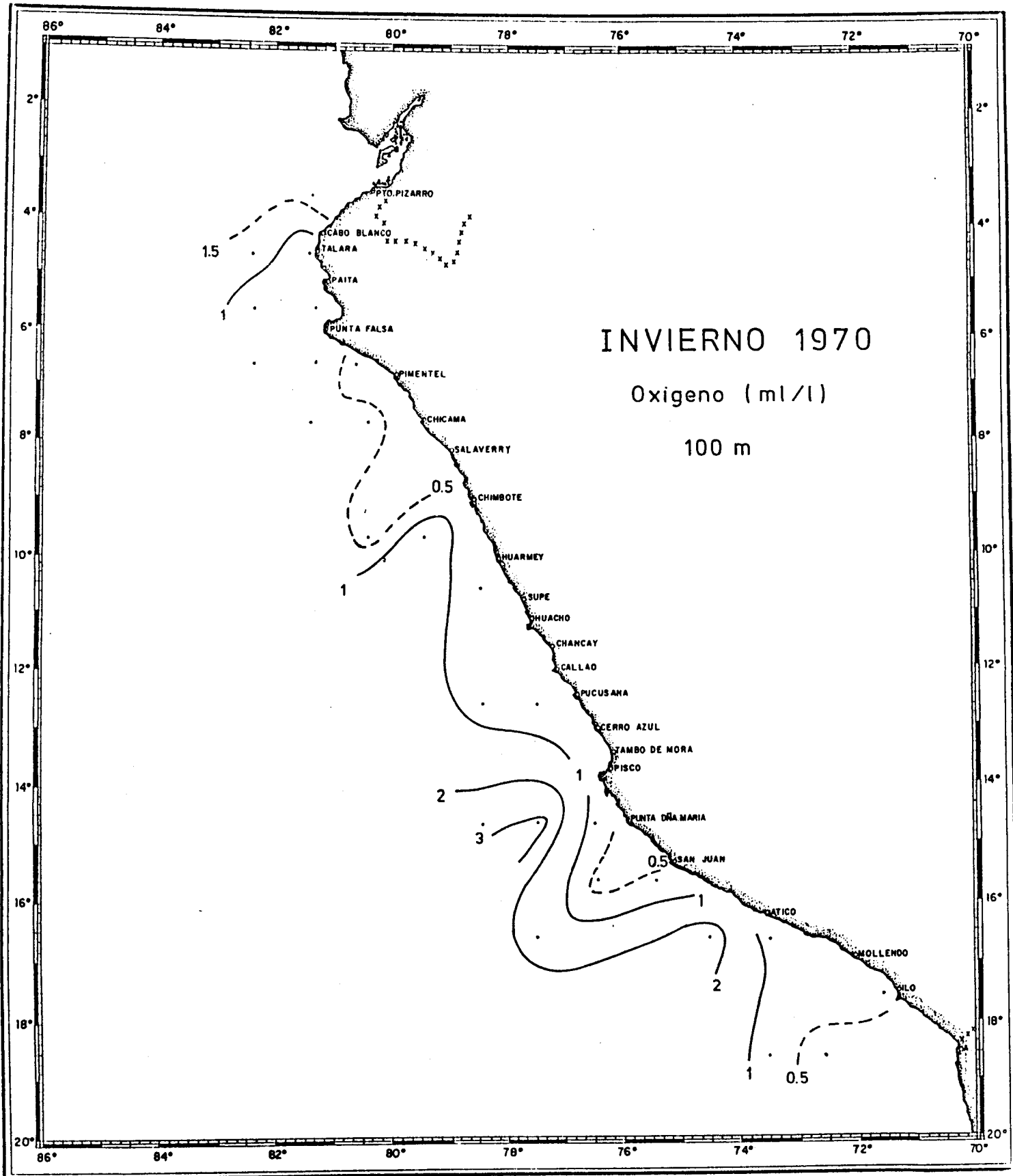


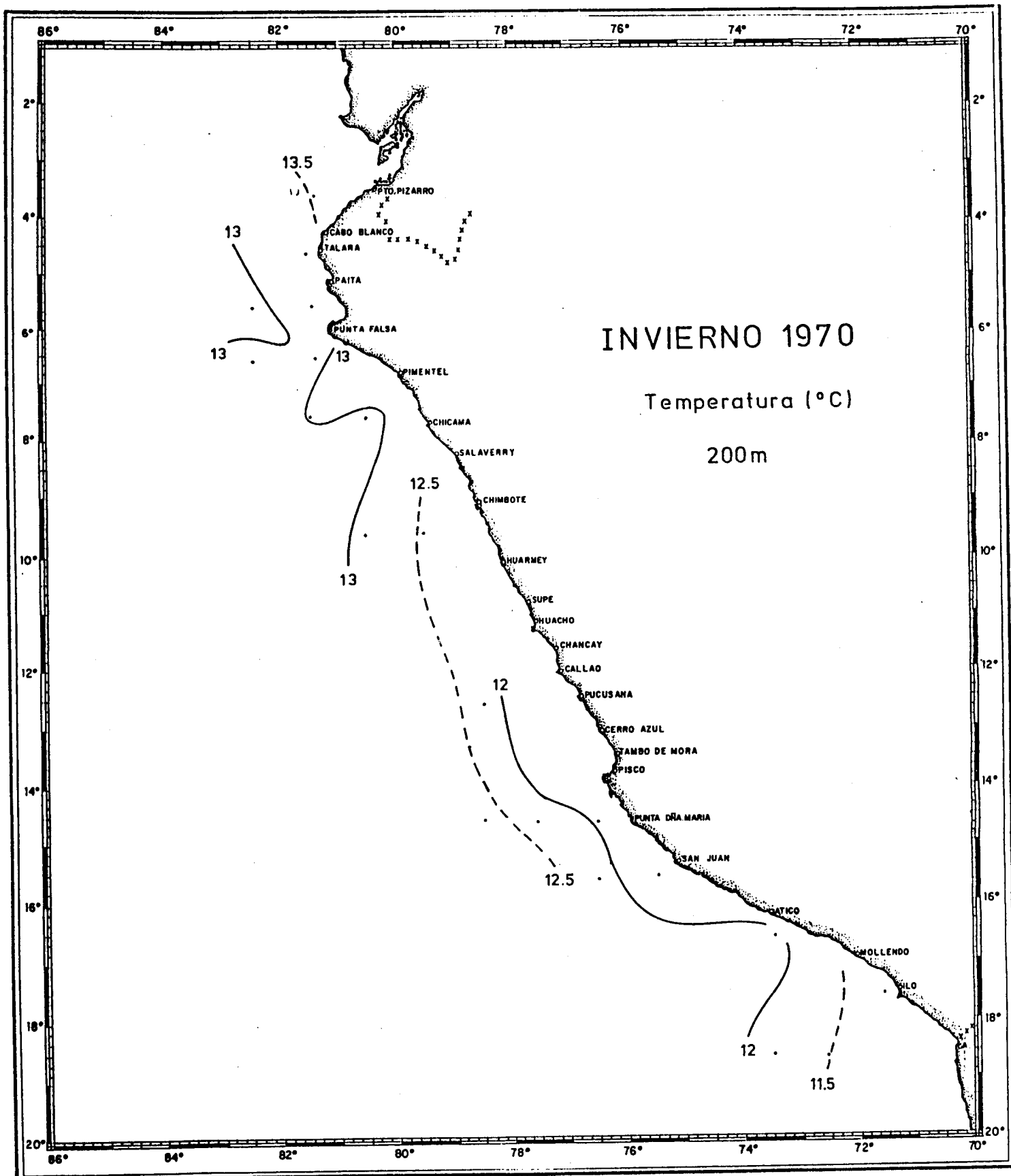
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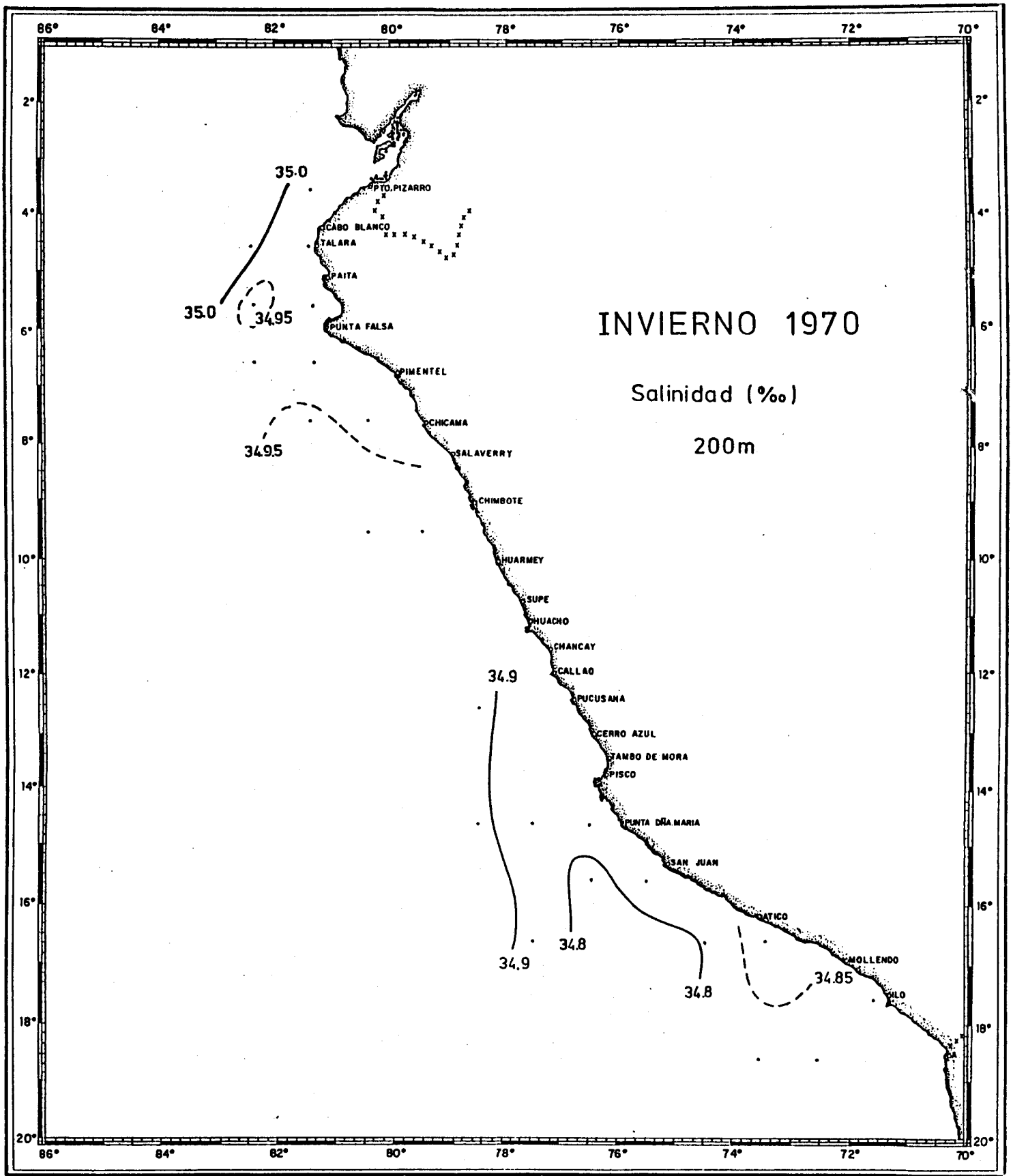
Temperatura (°C)

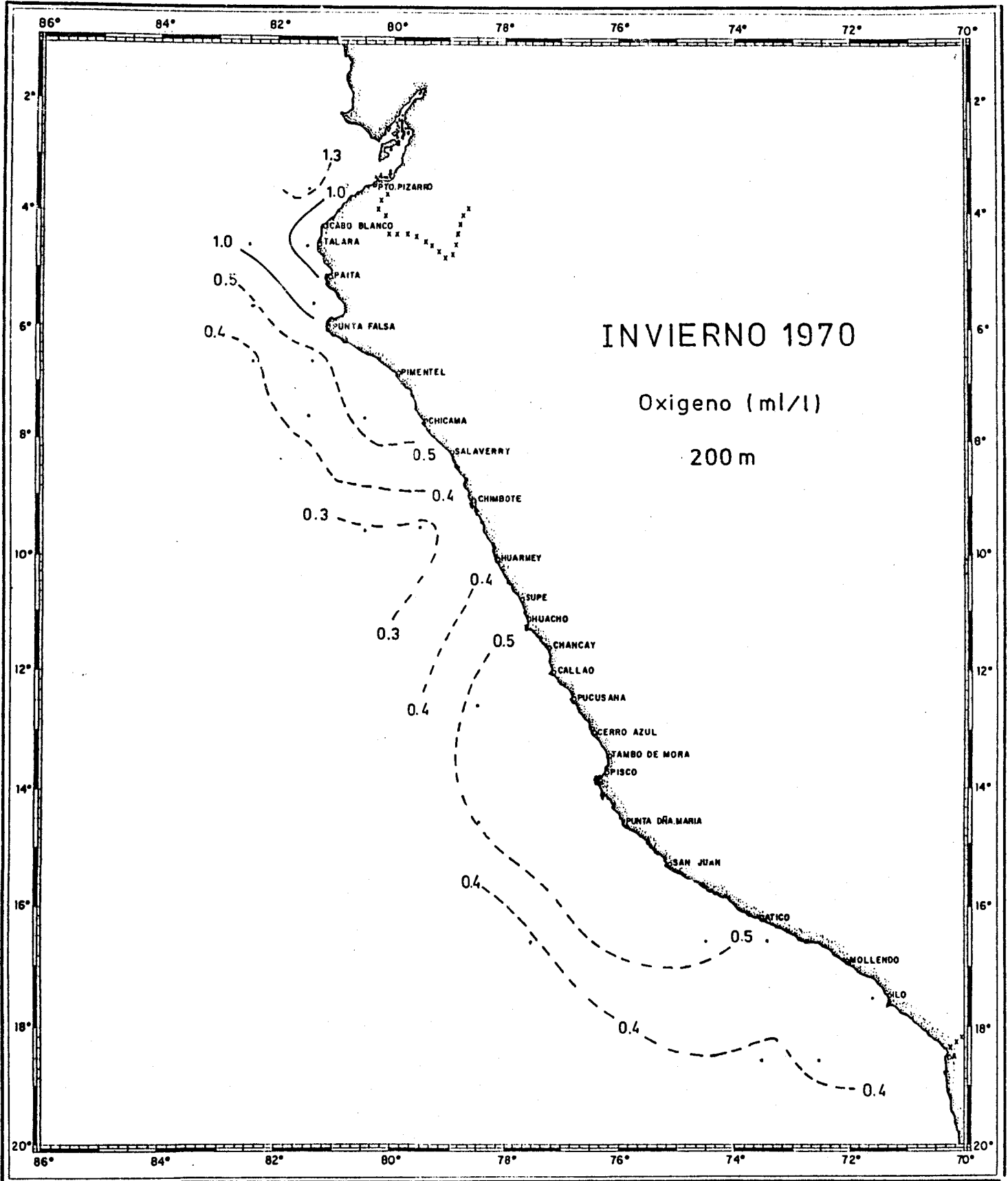
100 m.

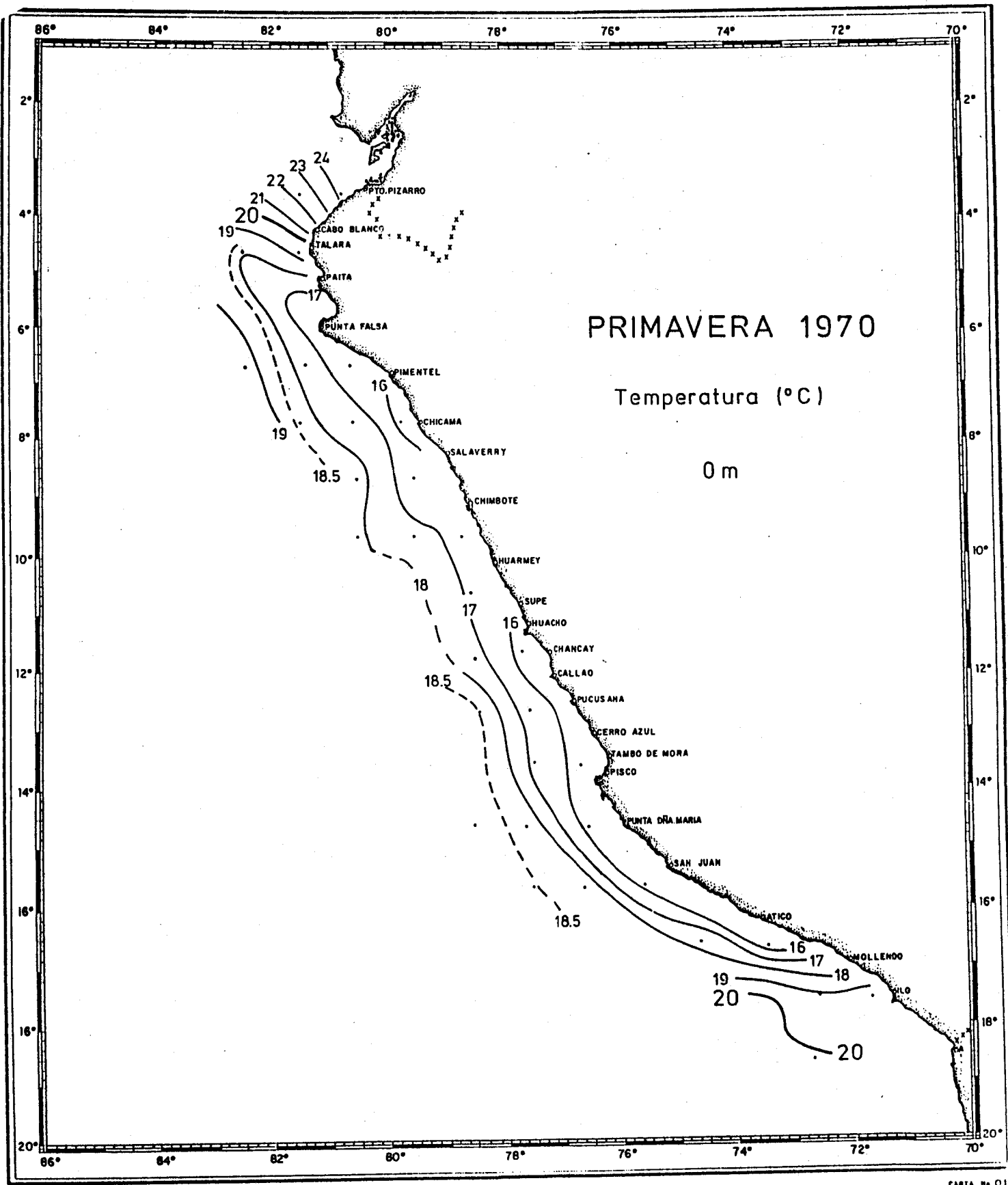


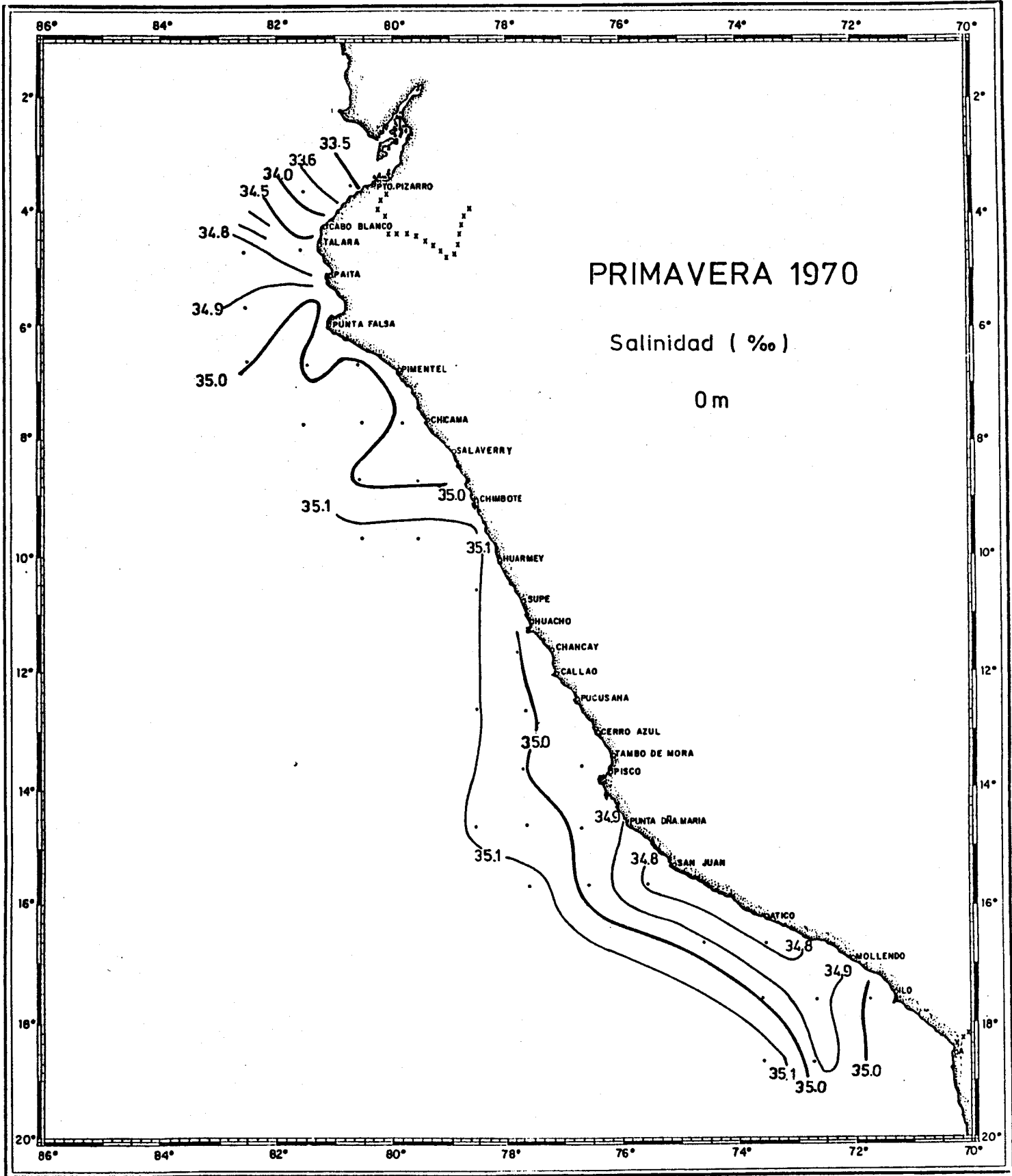


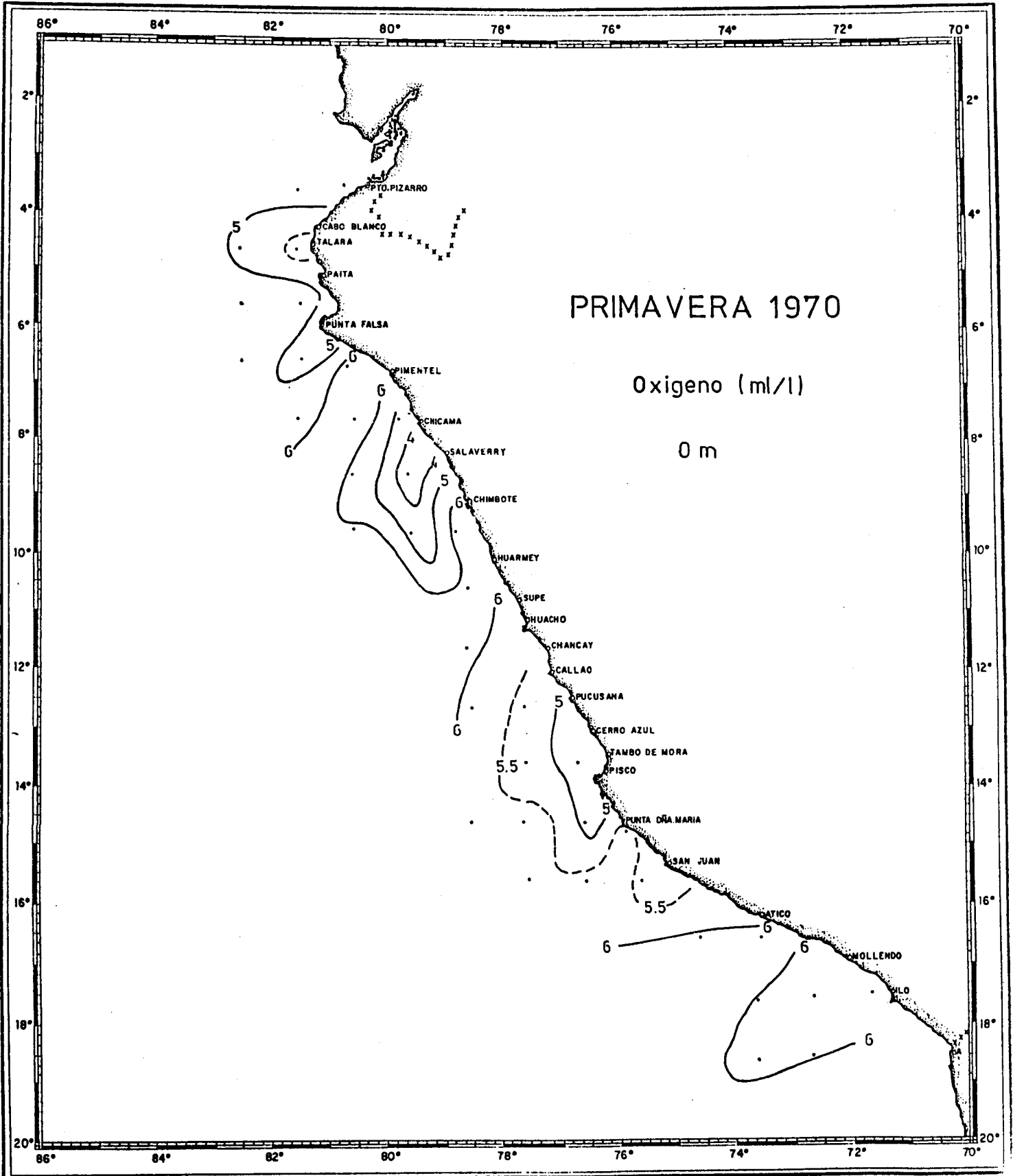


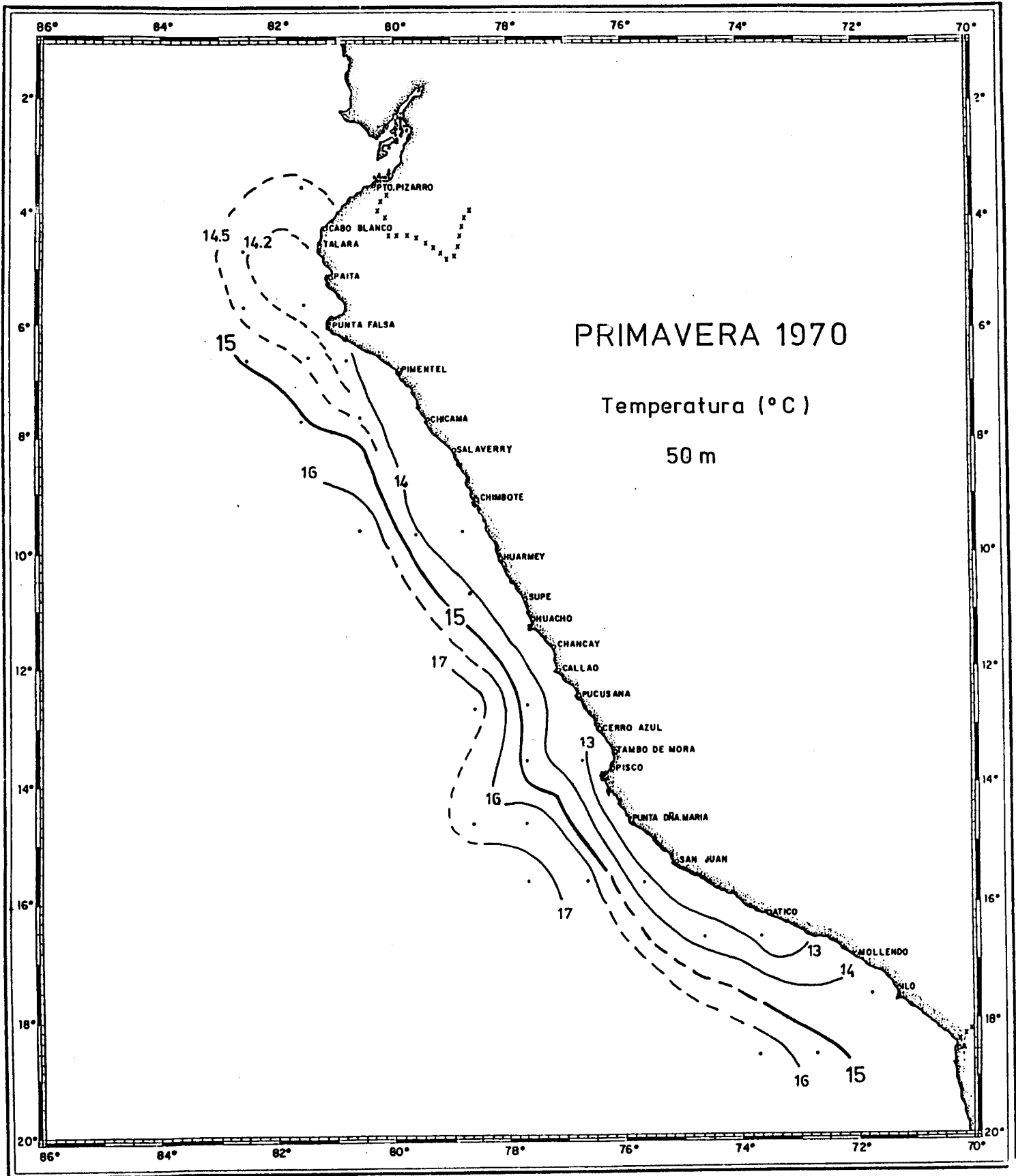


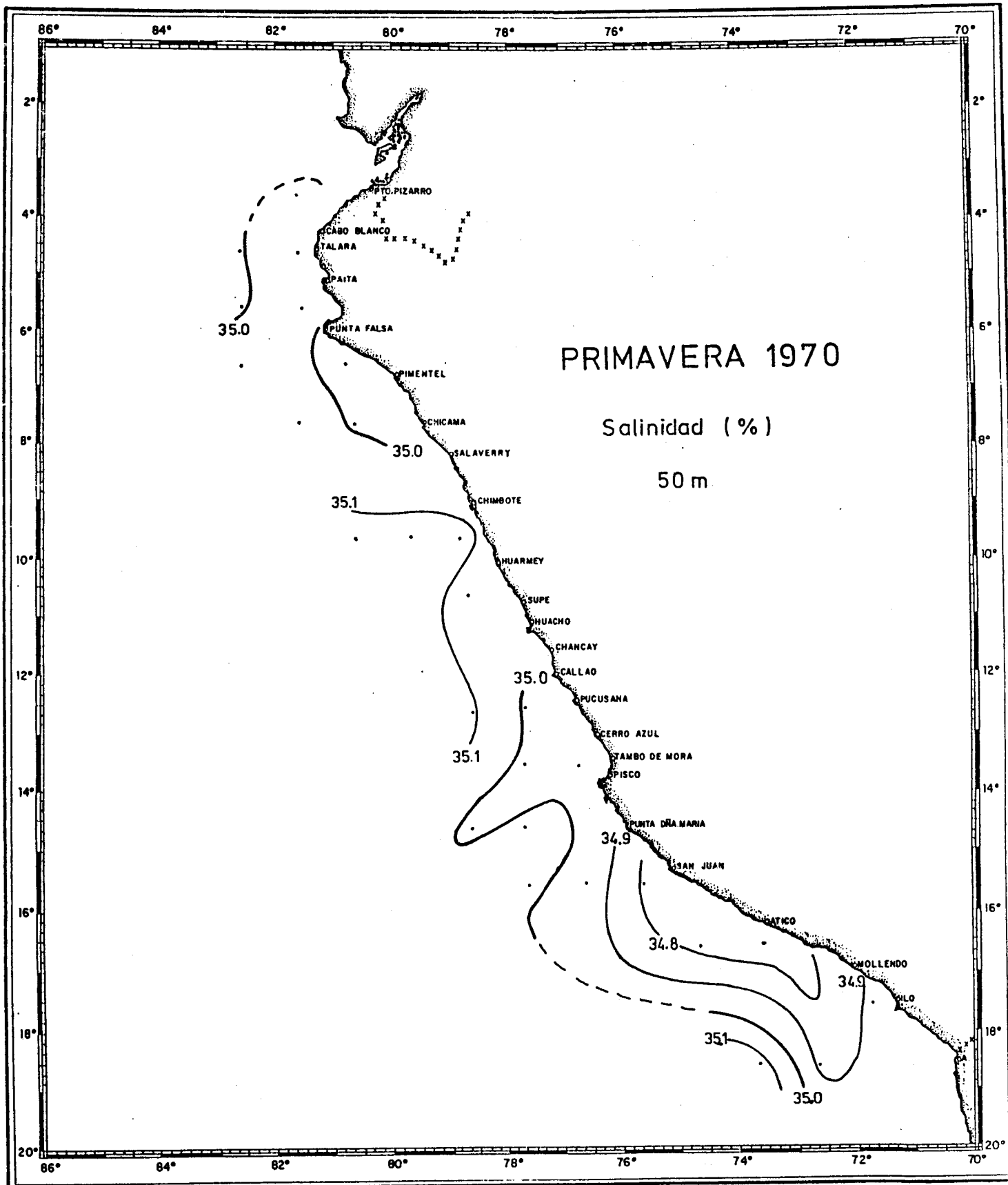


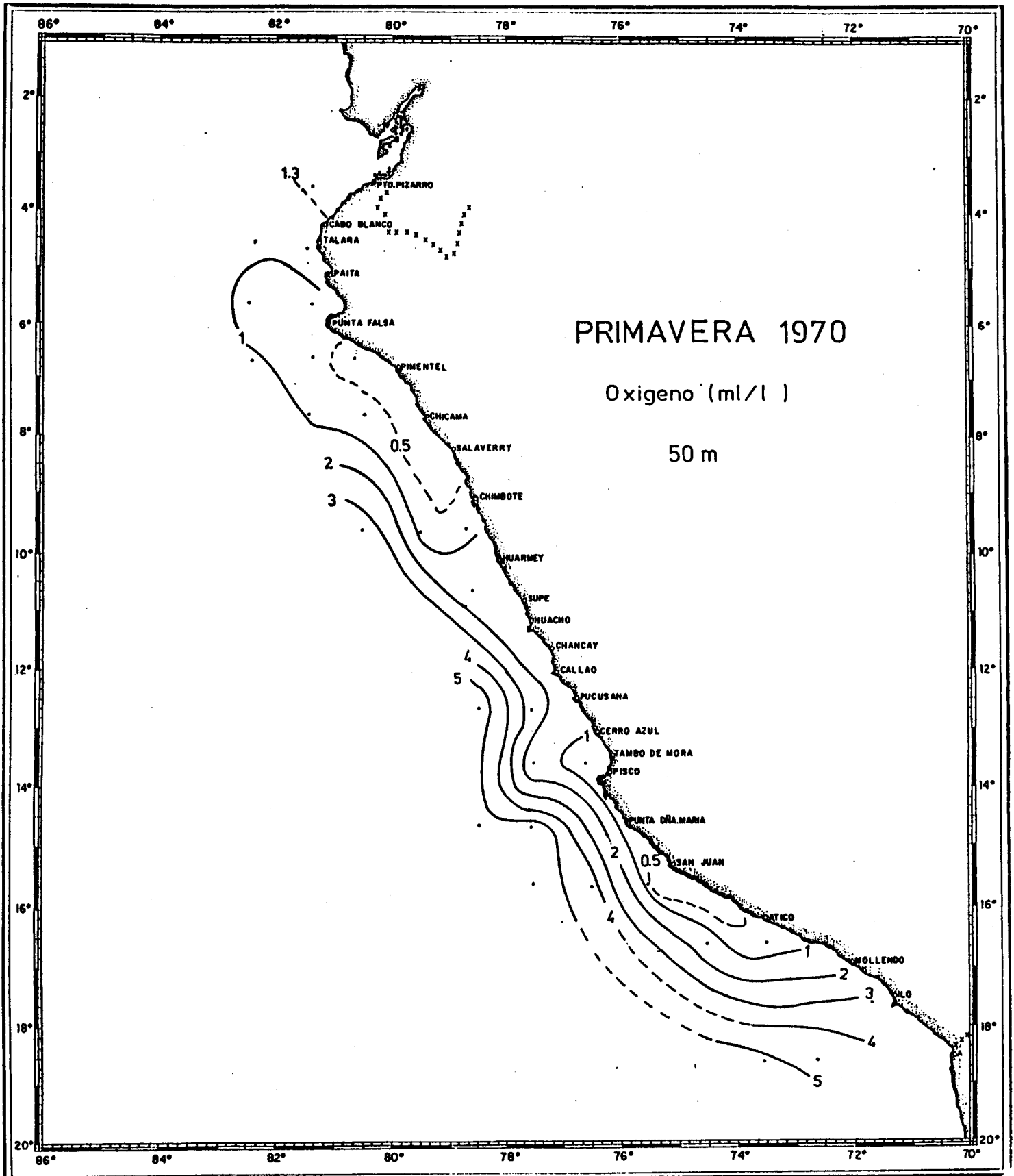


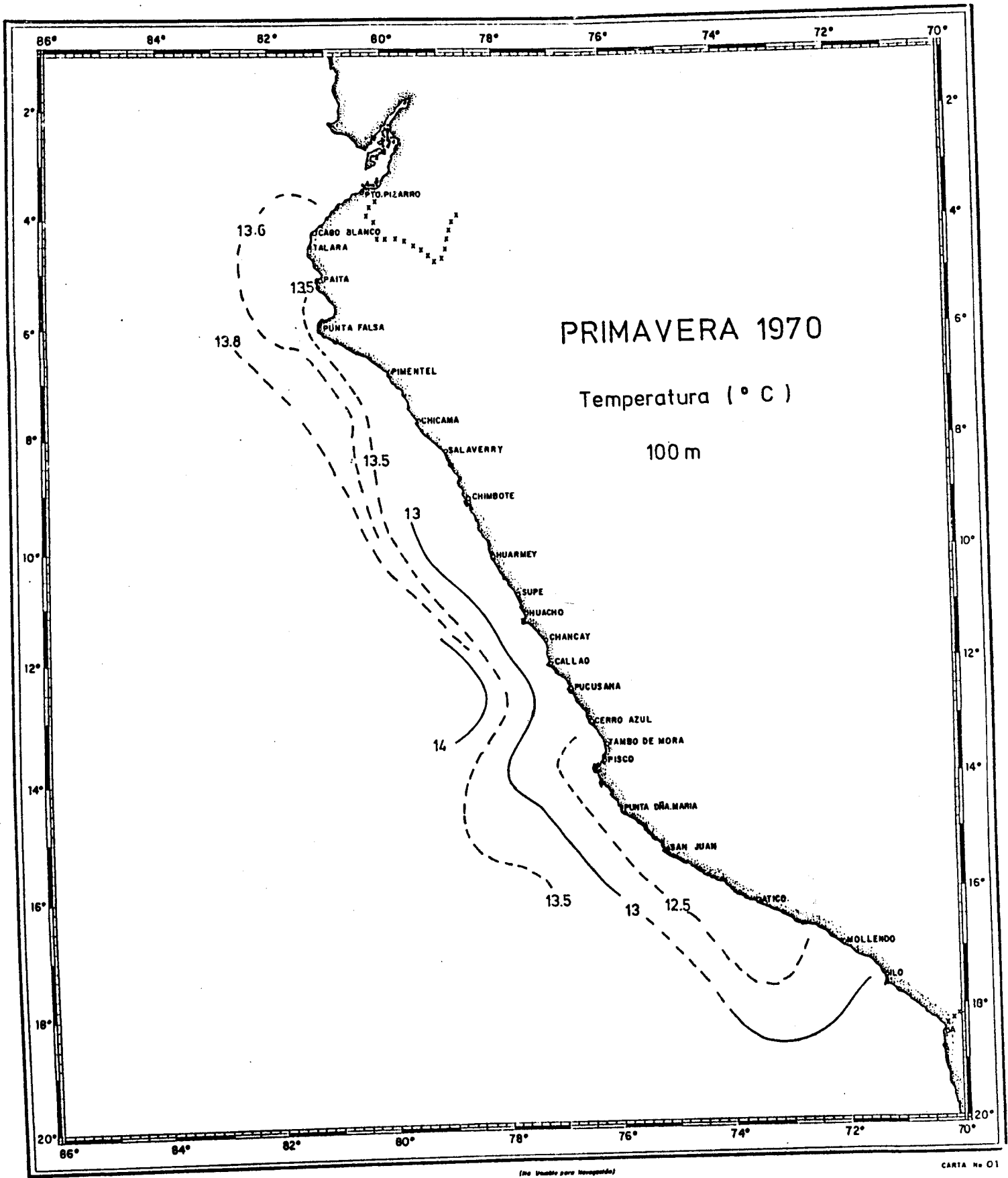


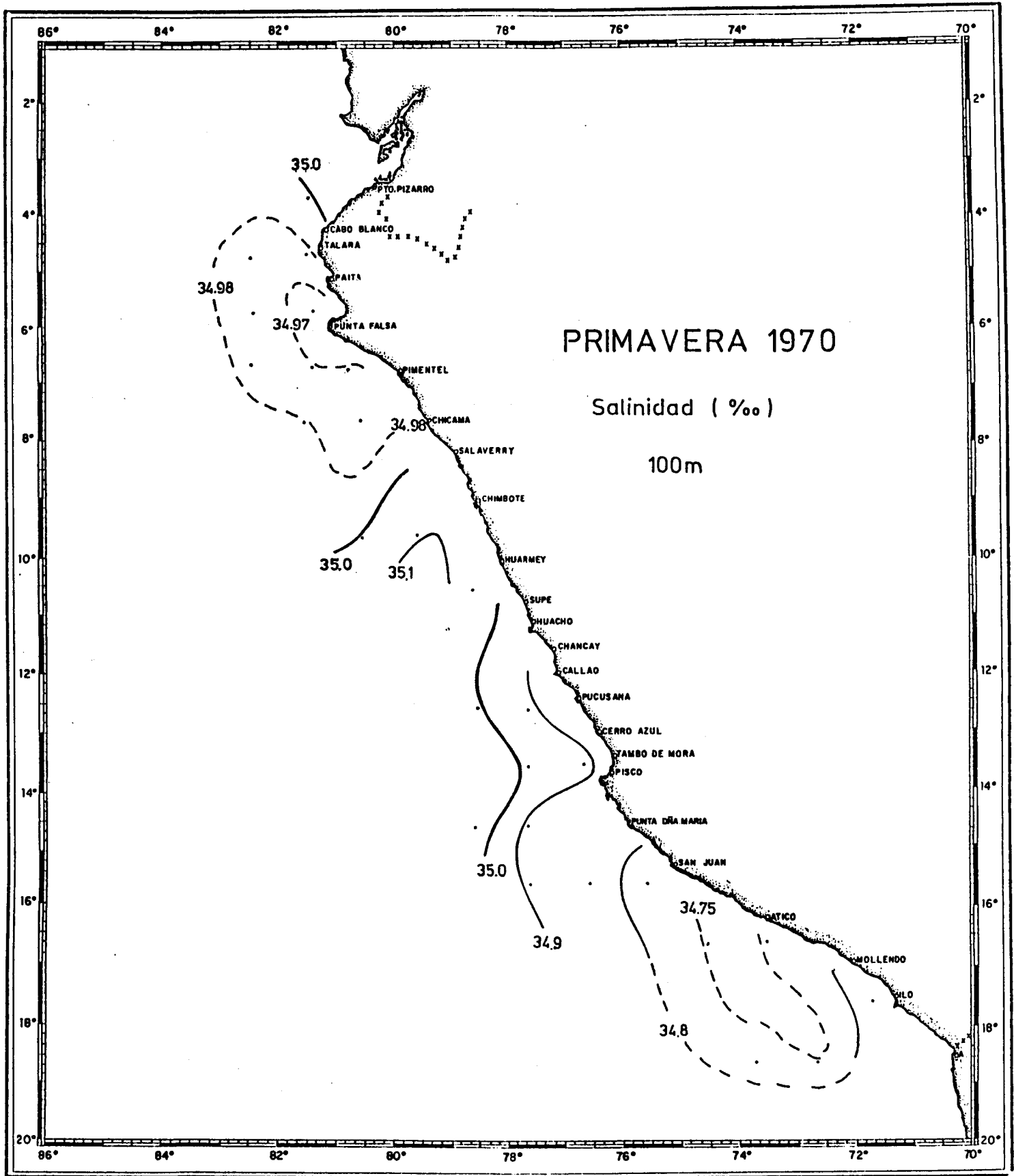


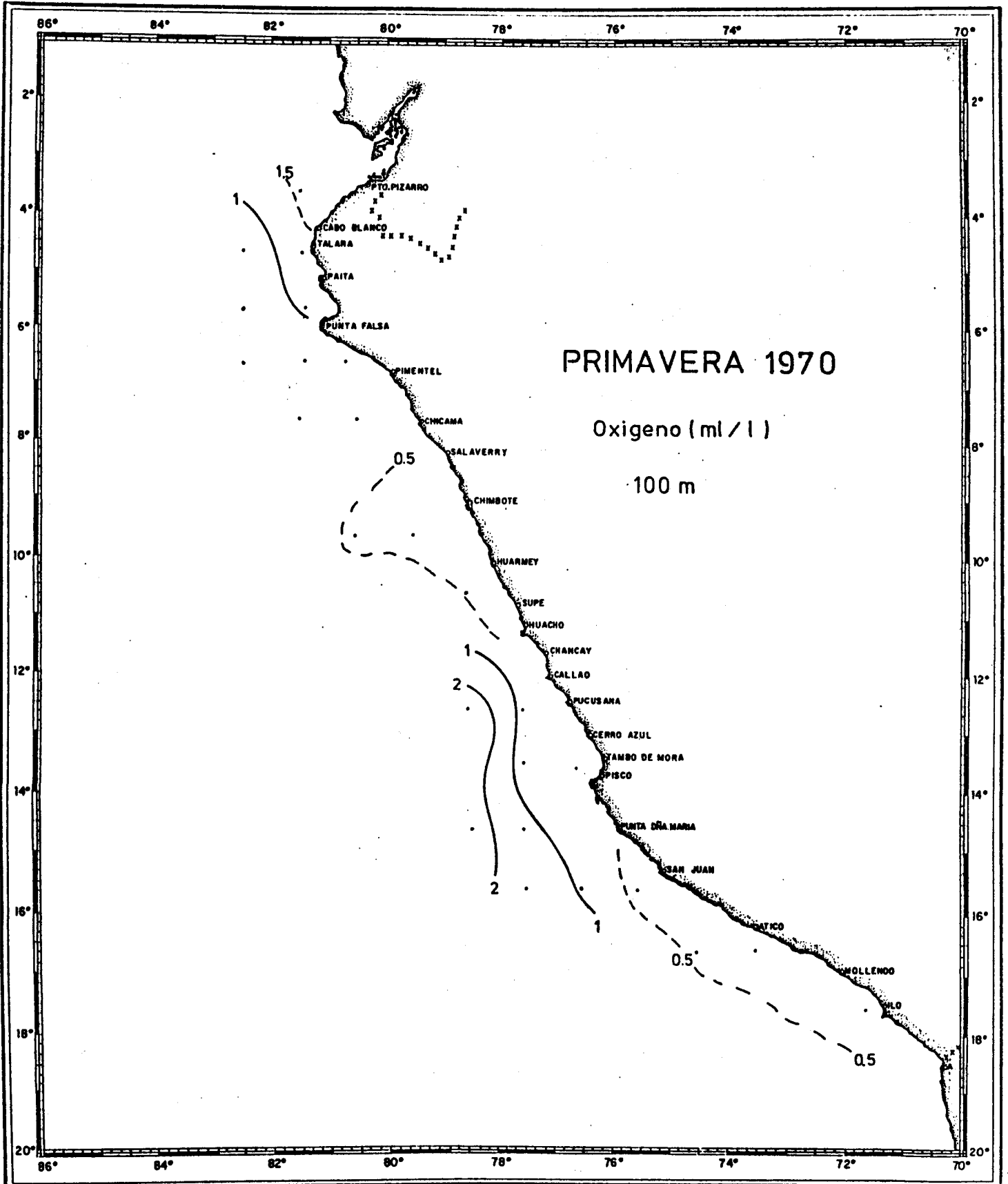


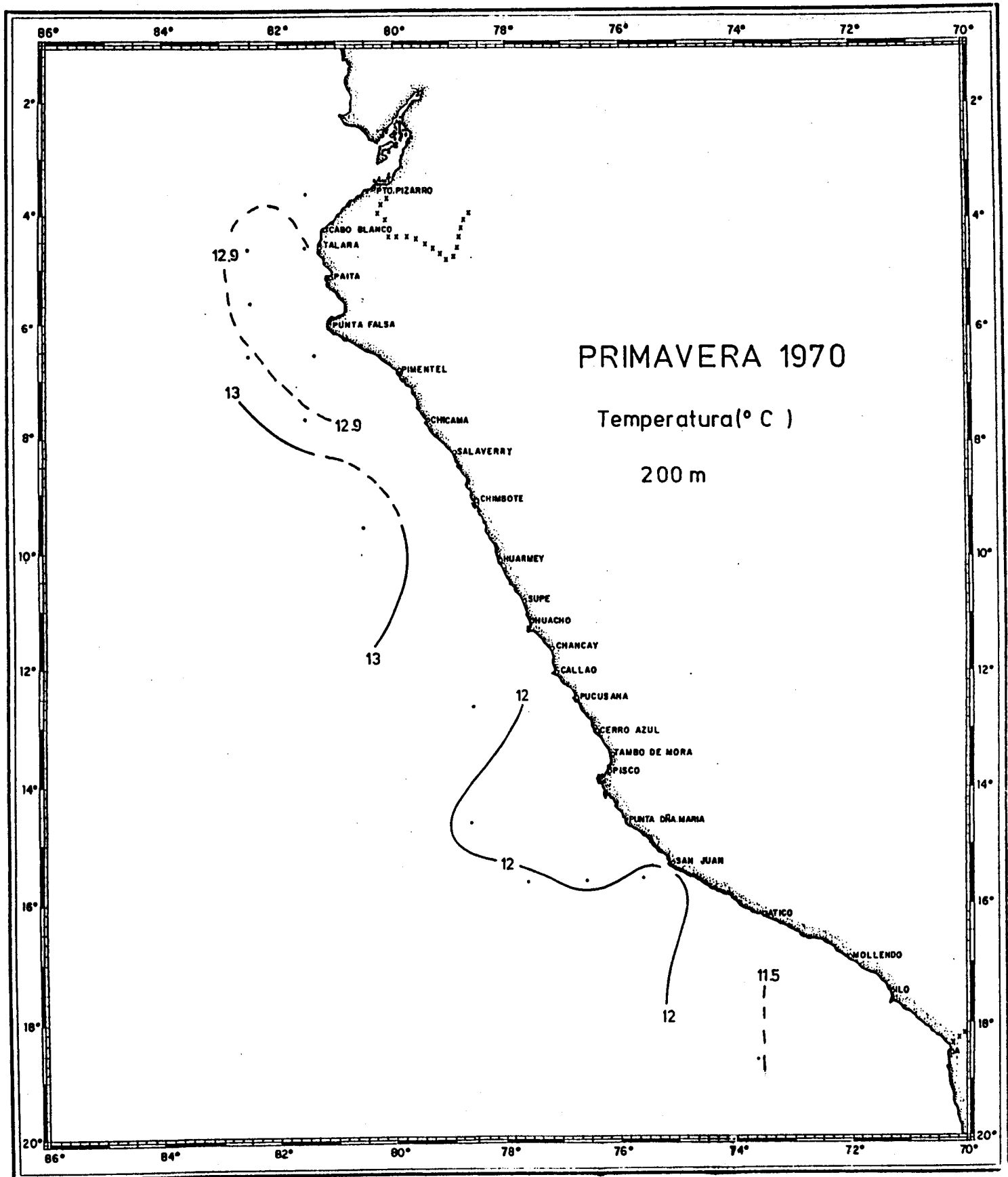


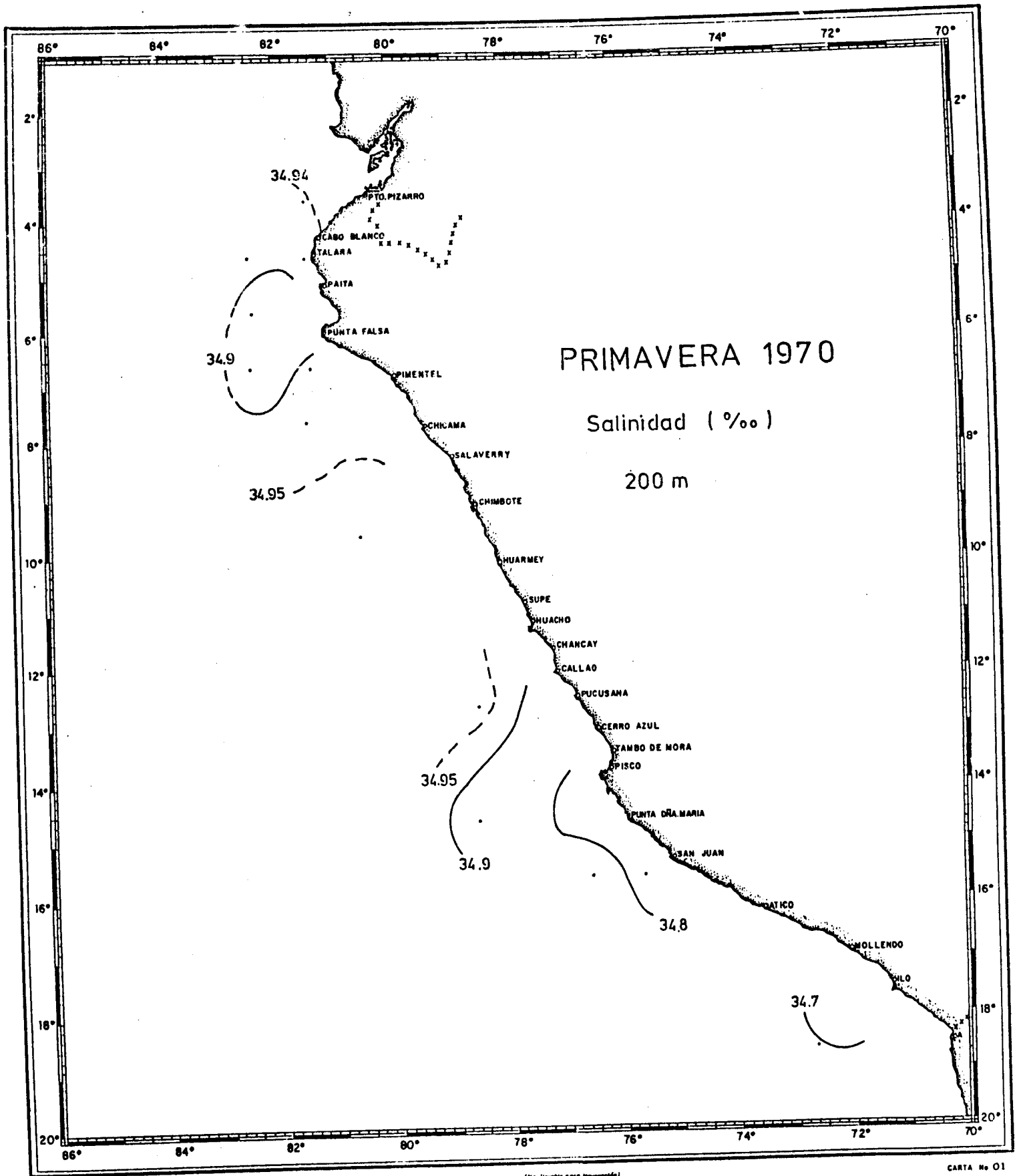


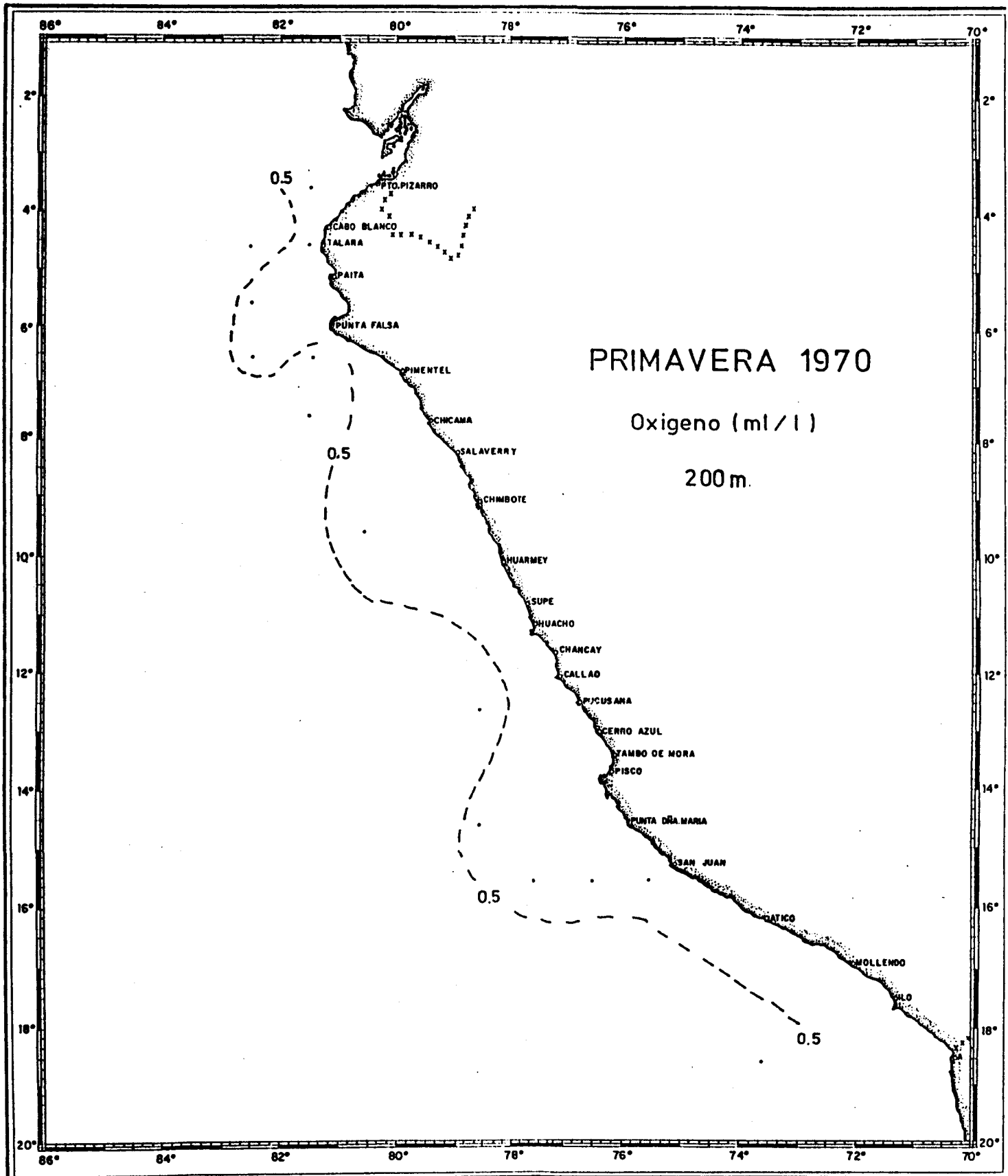


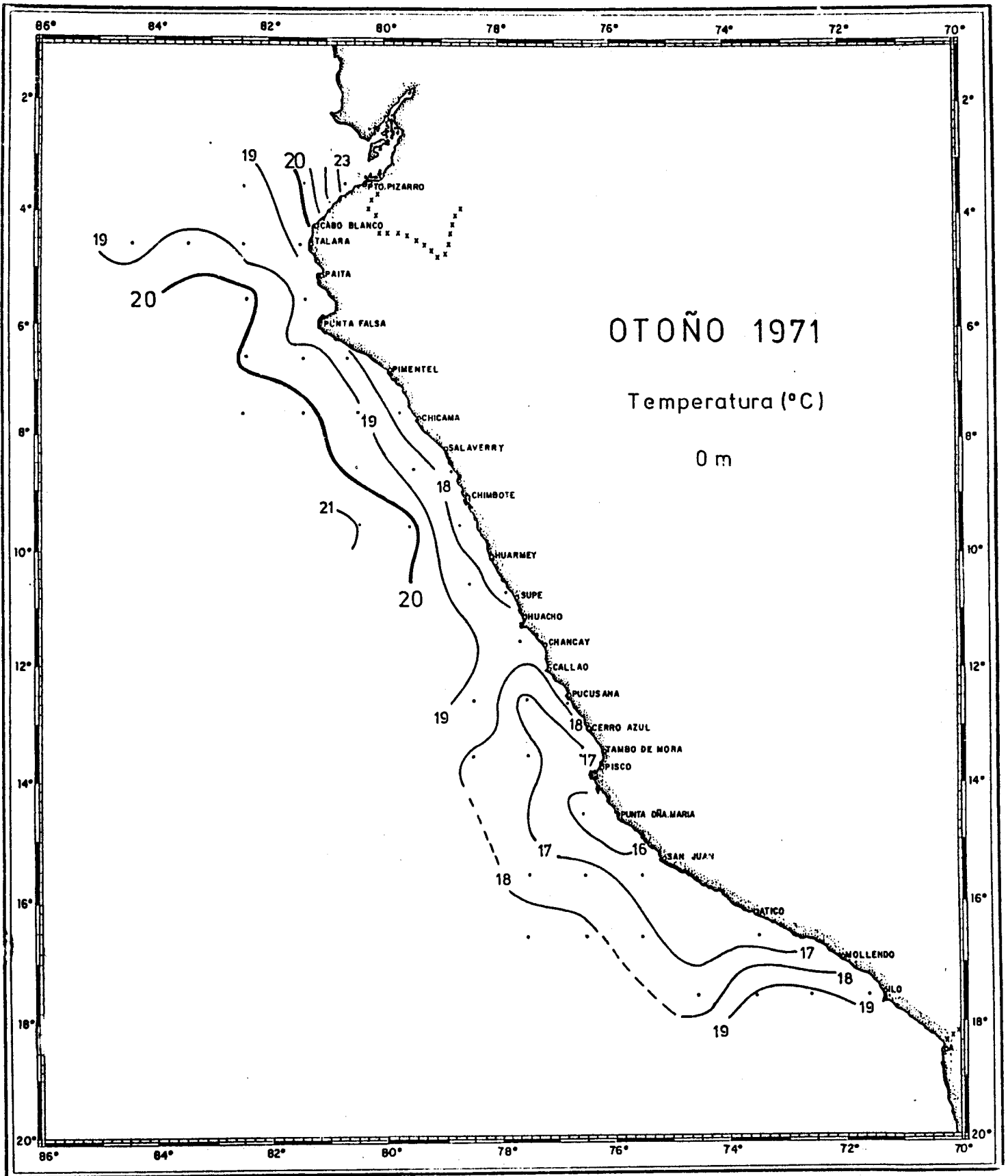


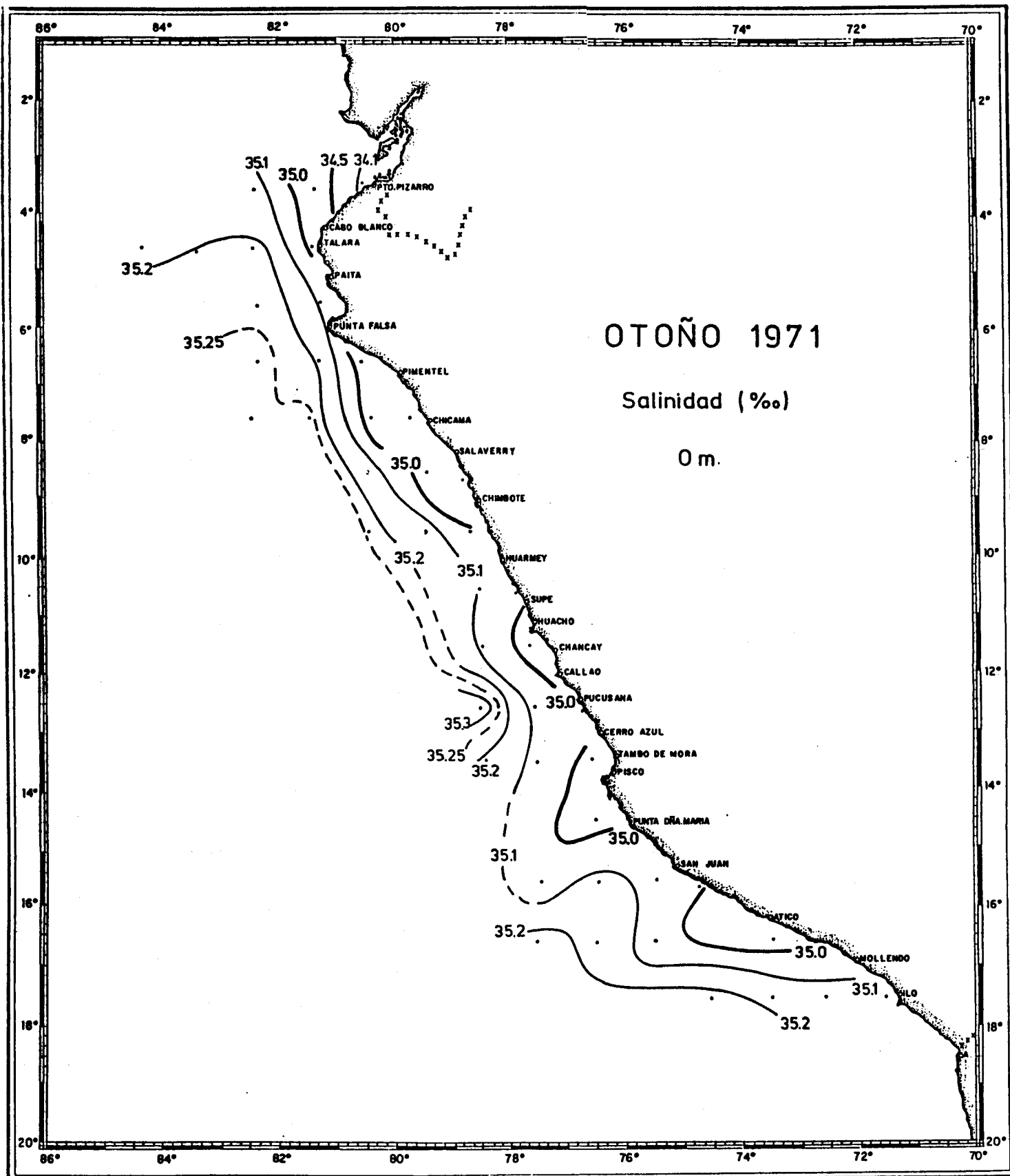


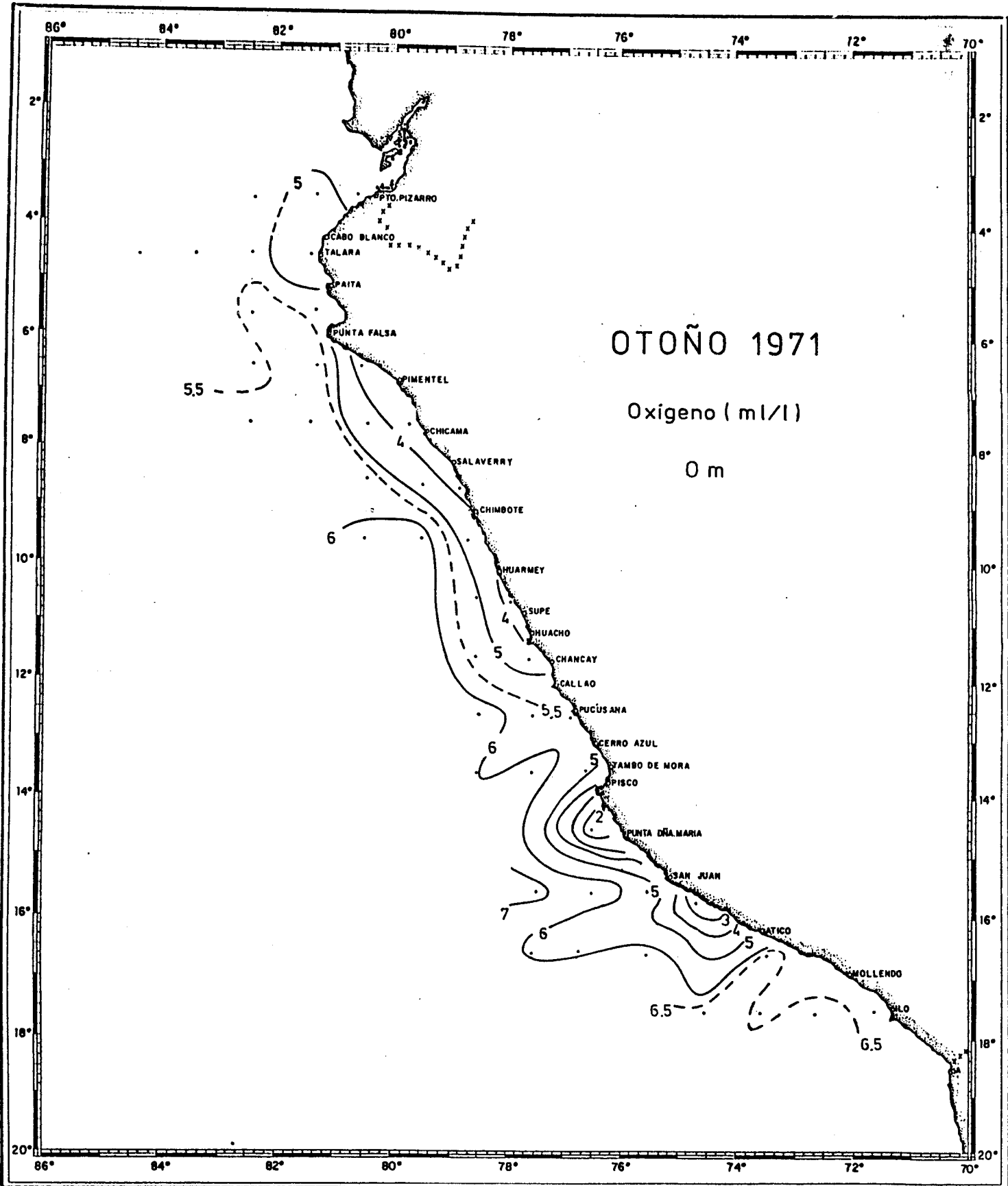


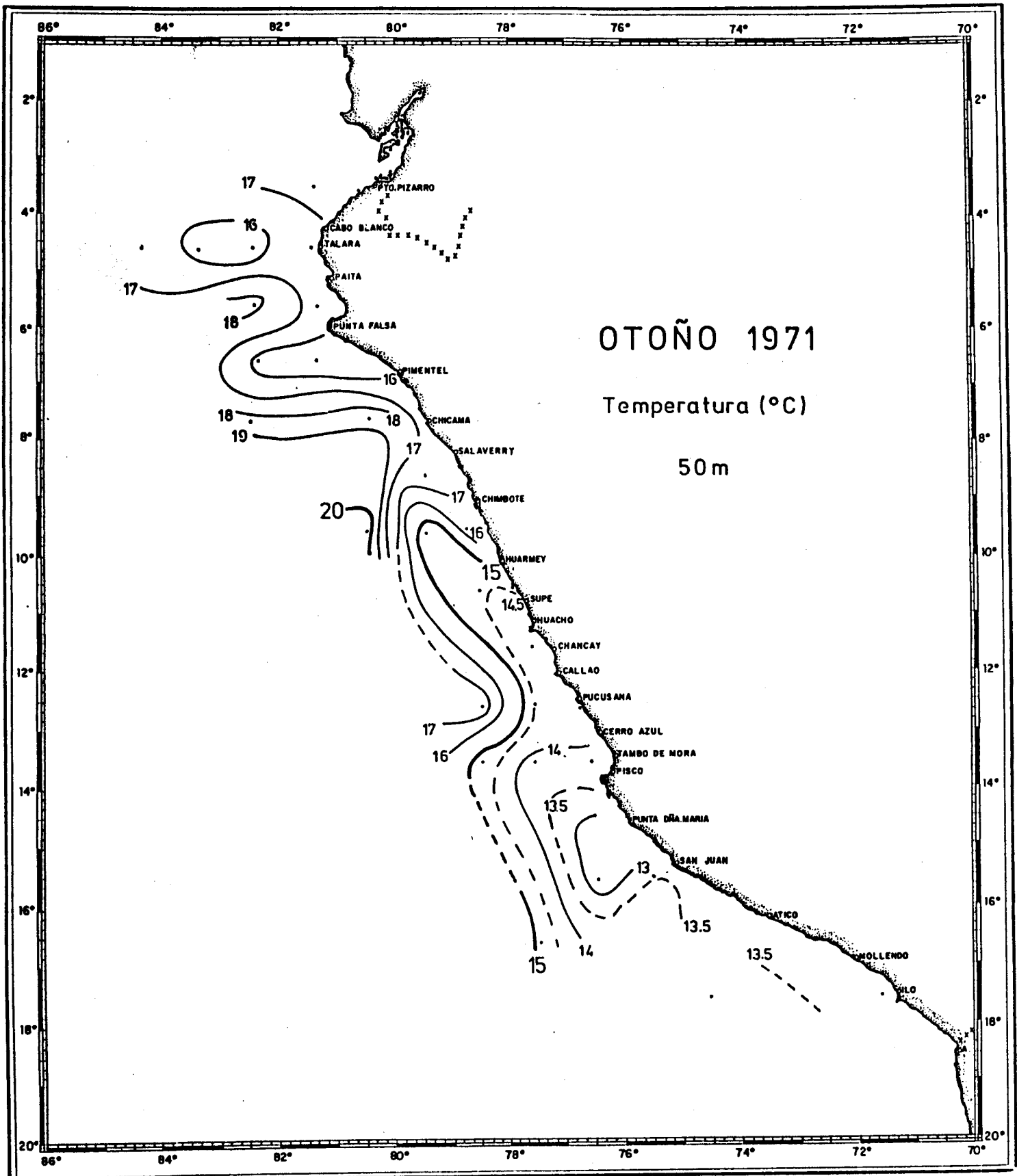


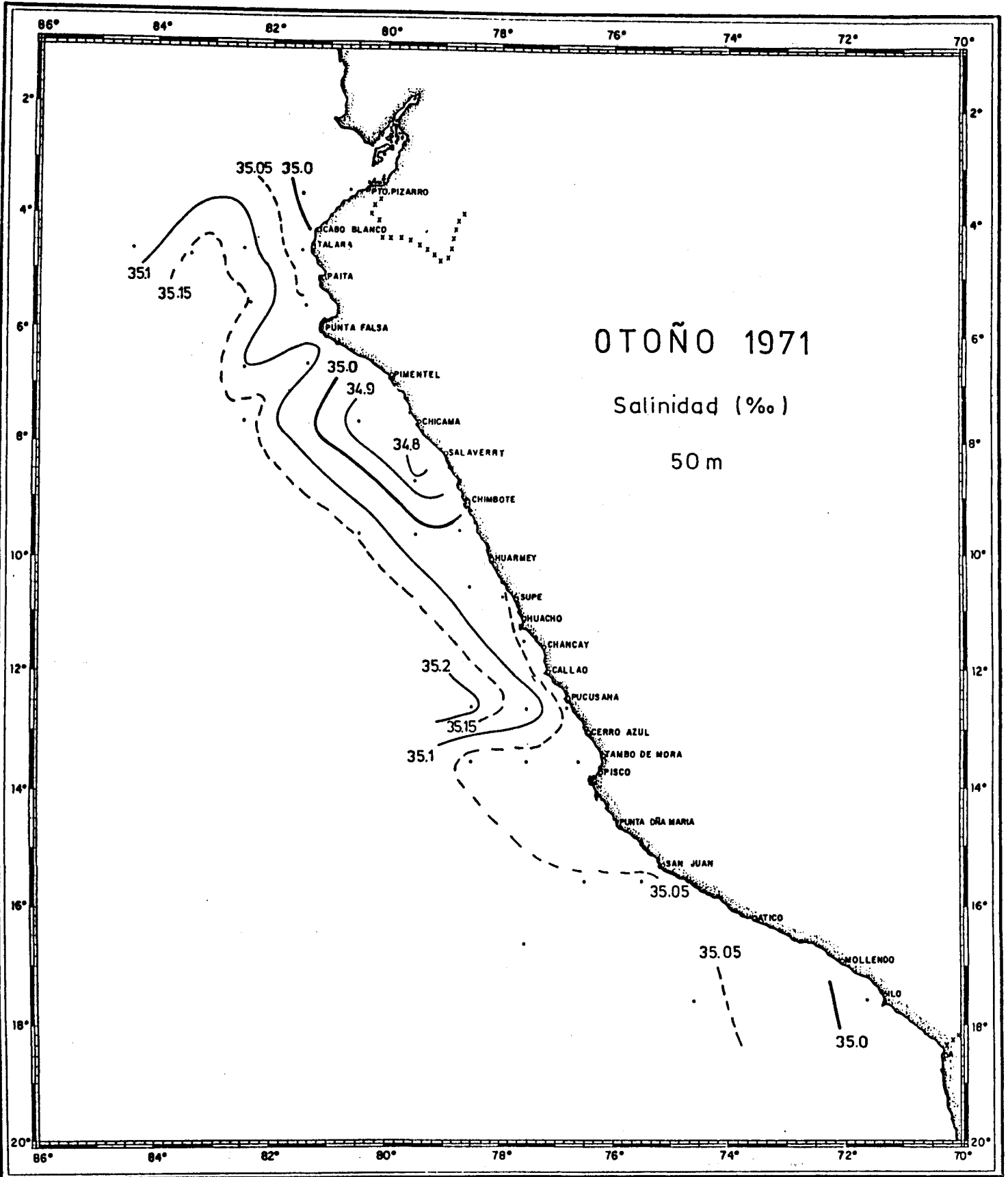


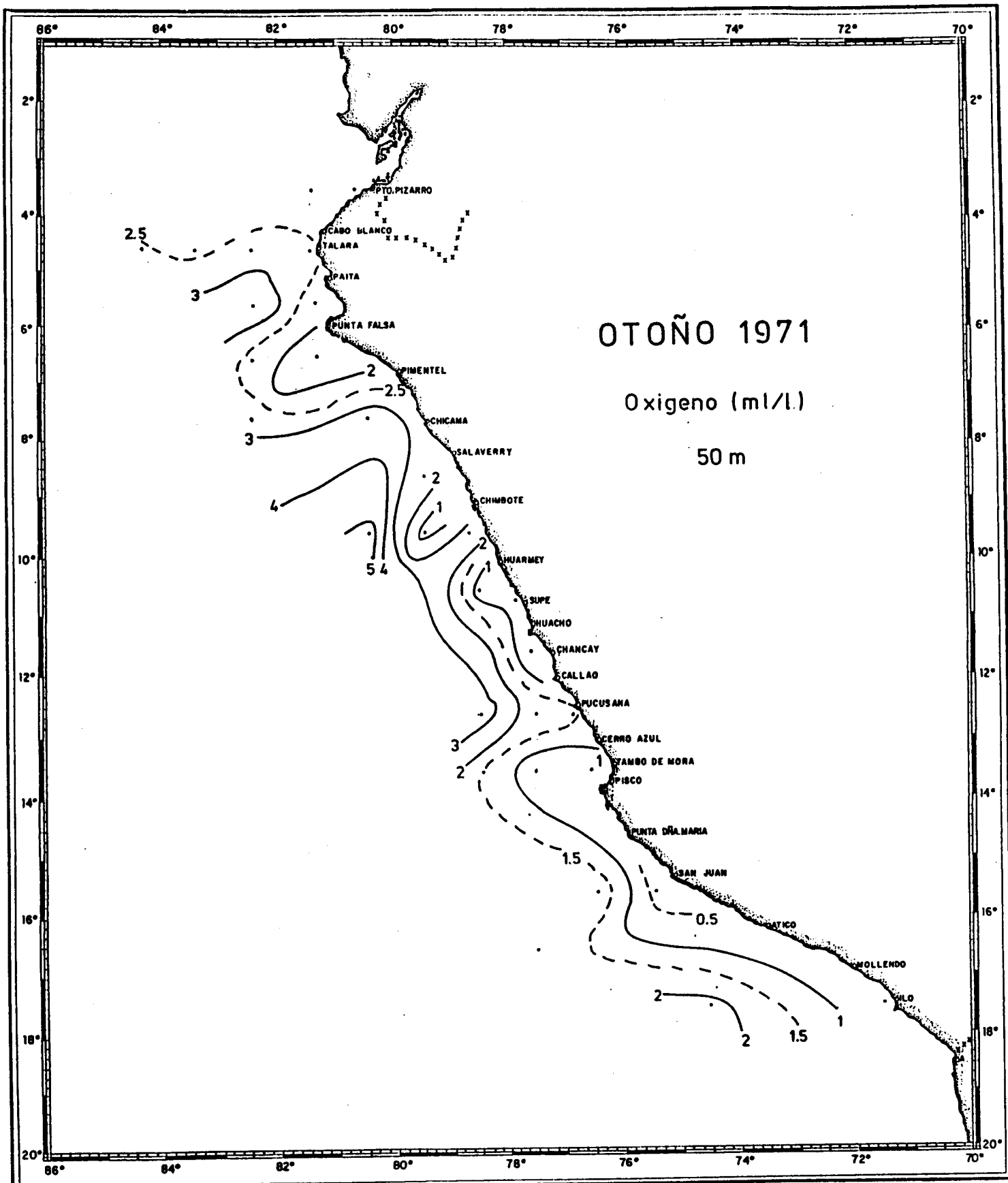


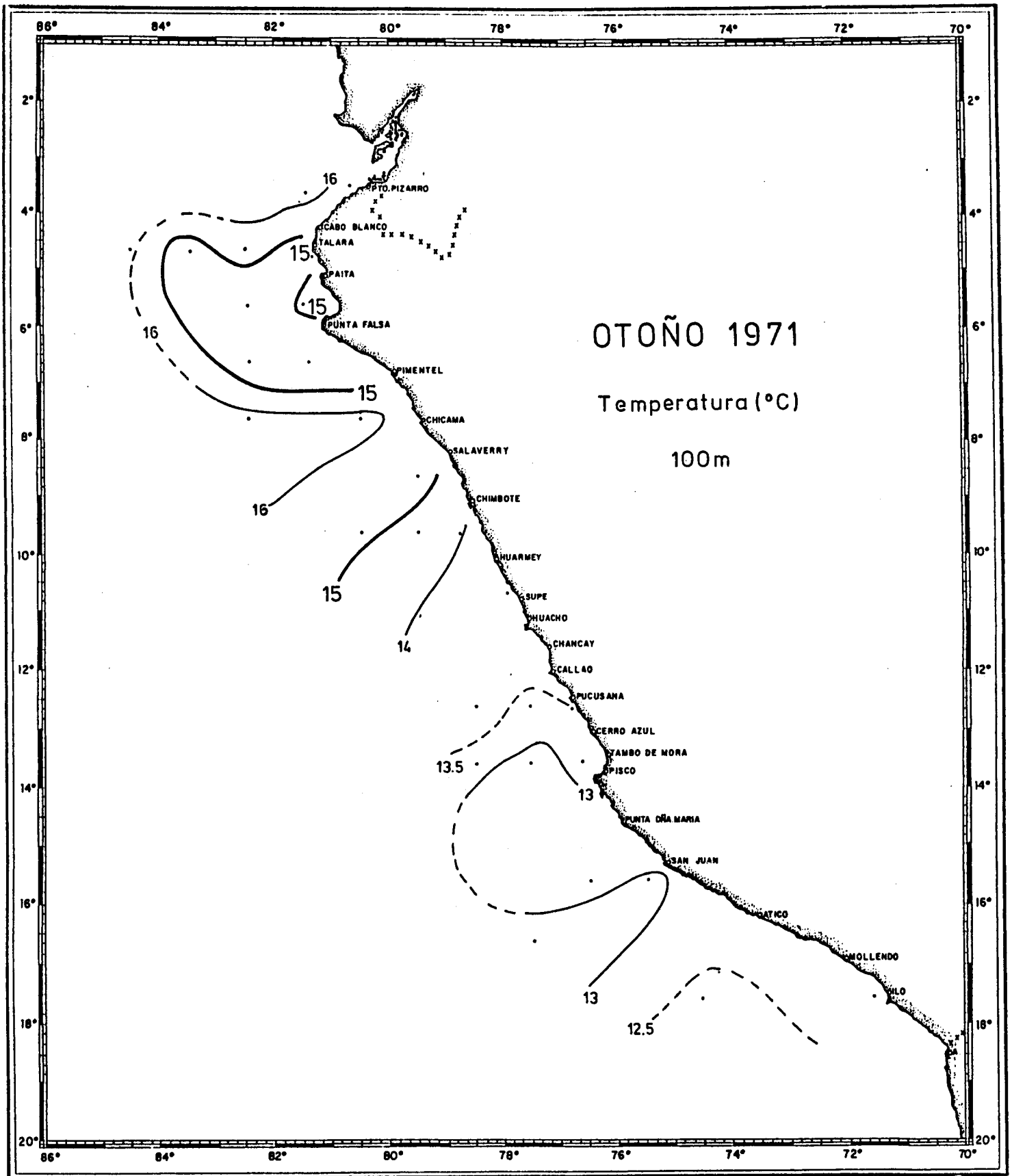


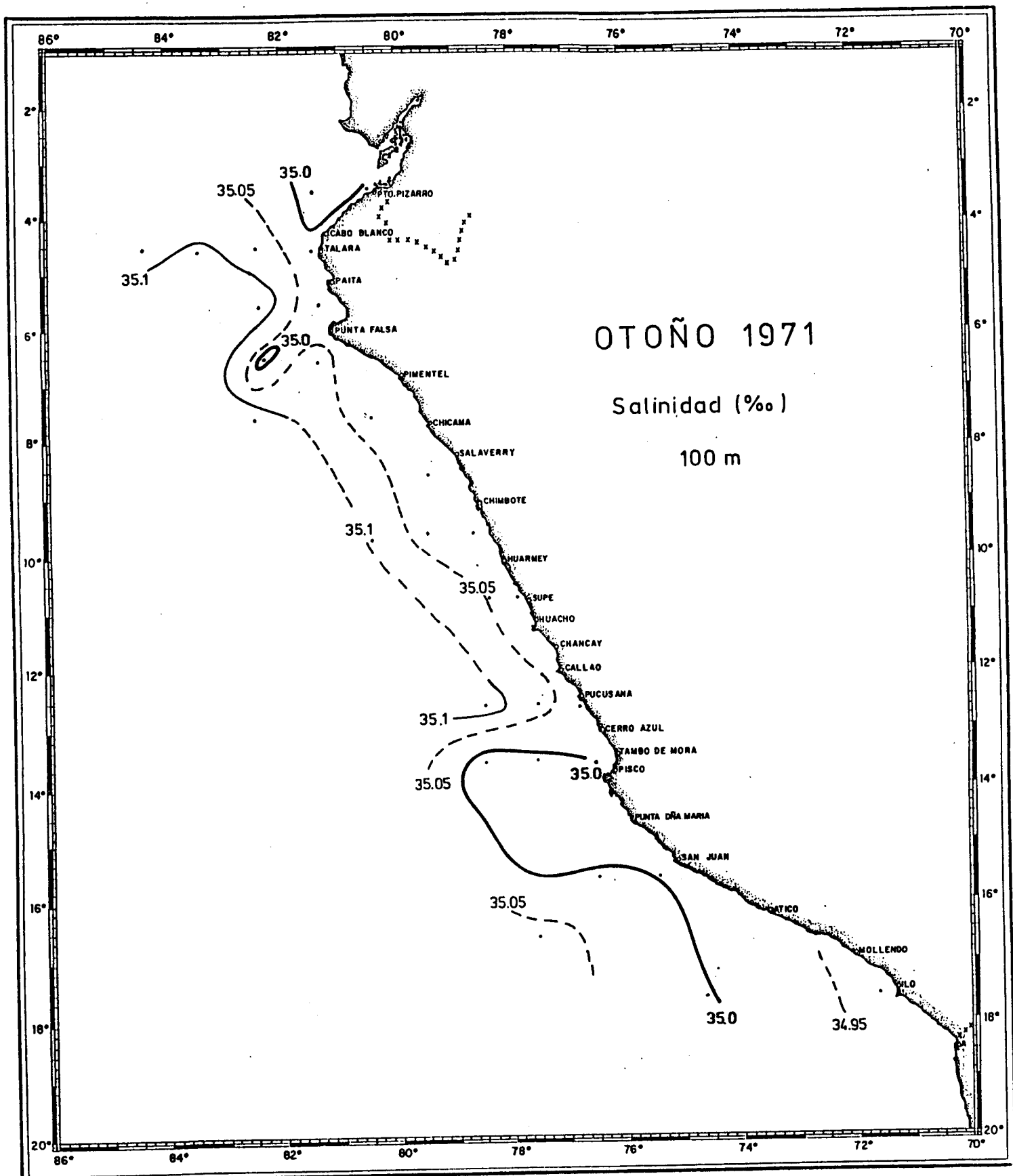


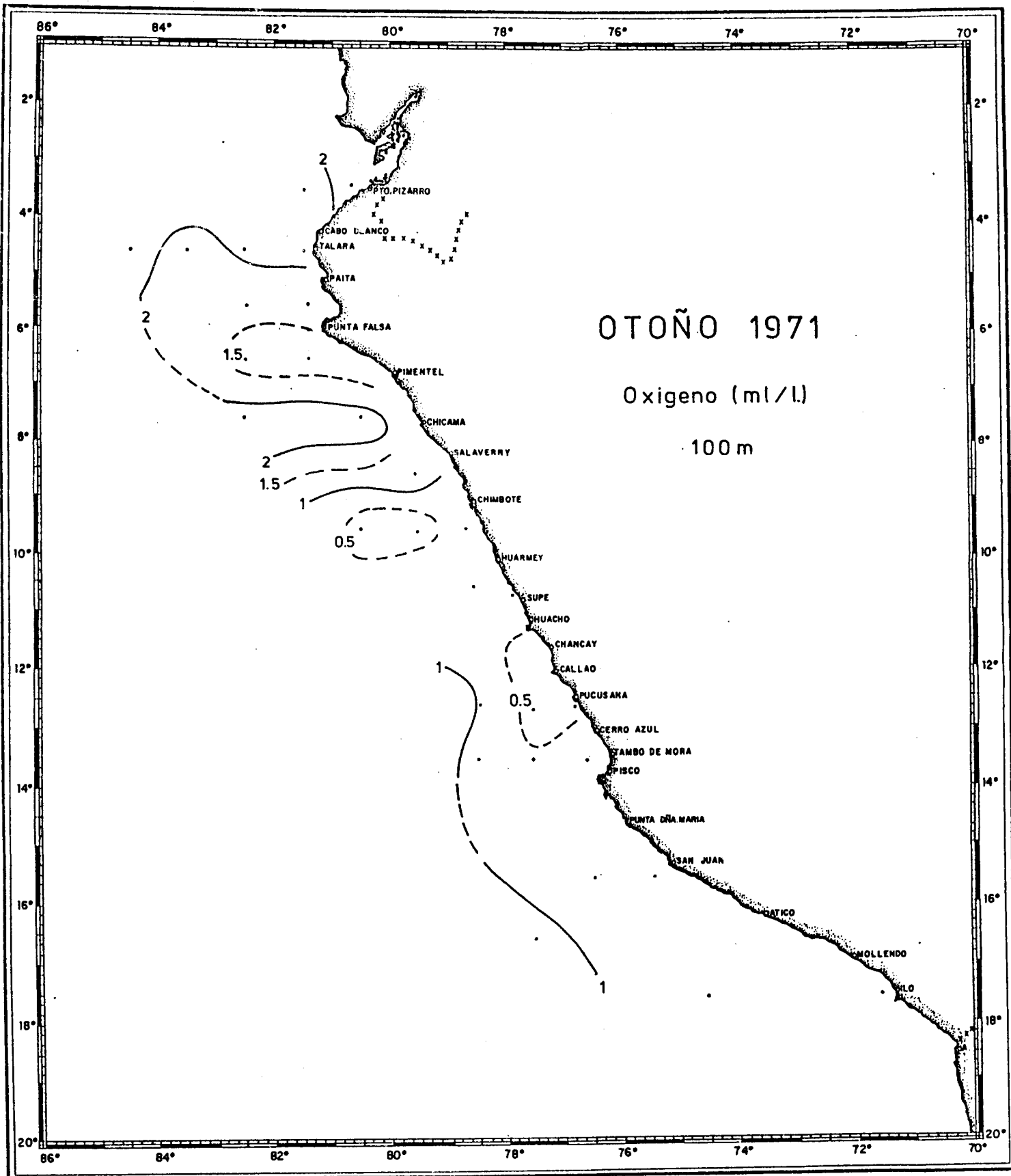


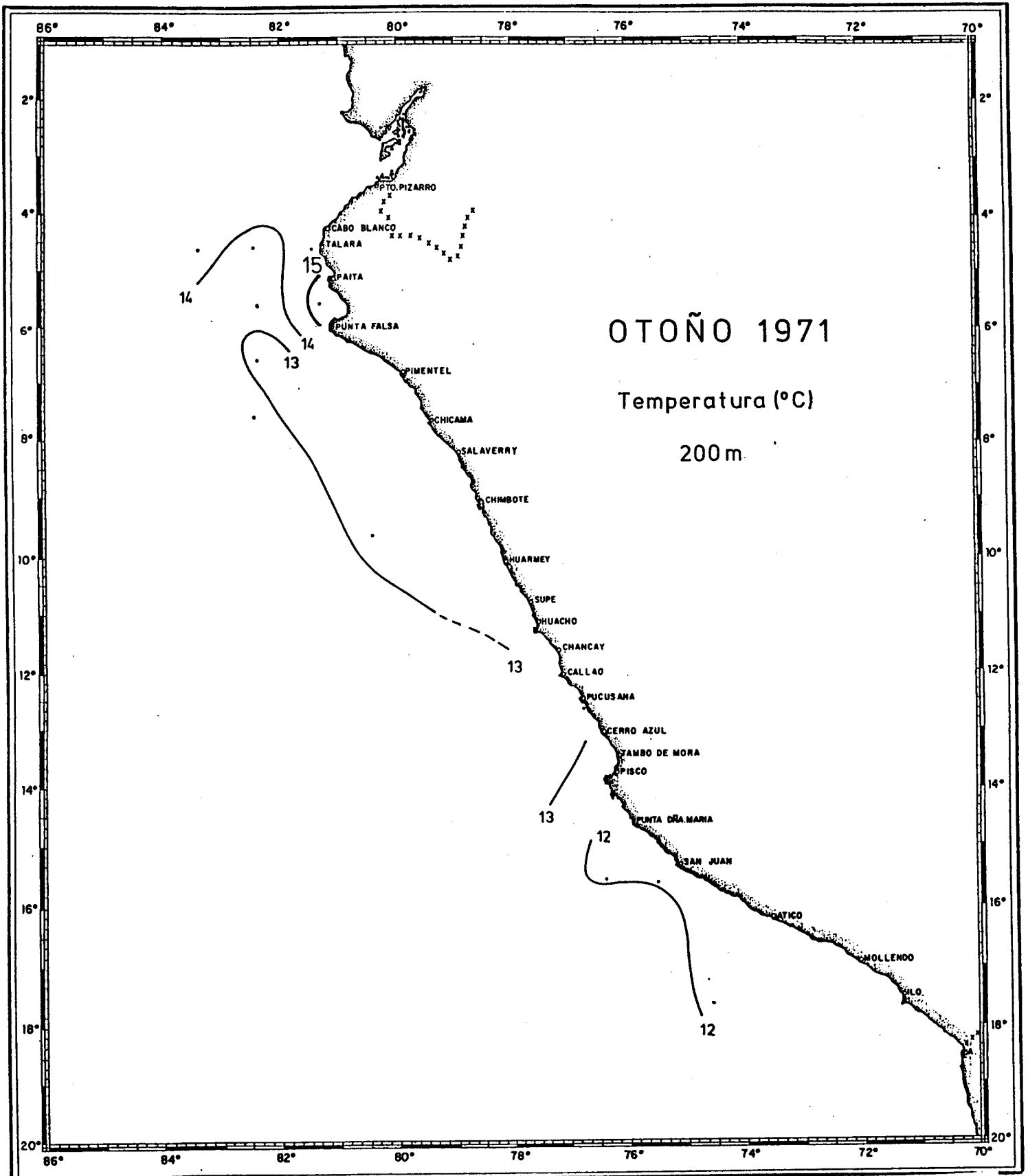


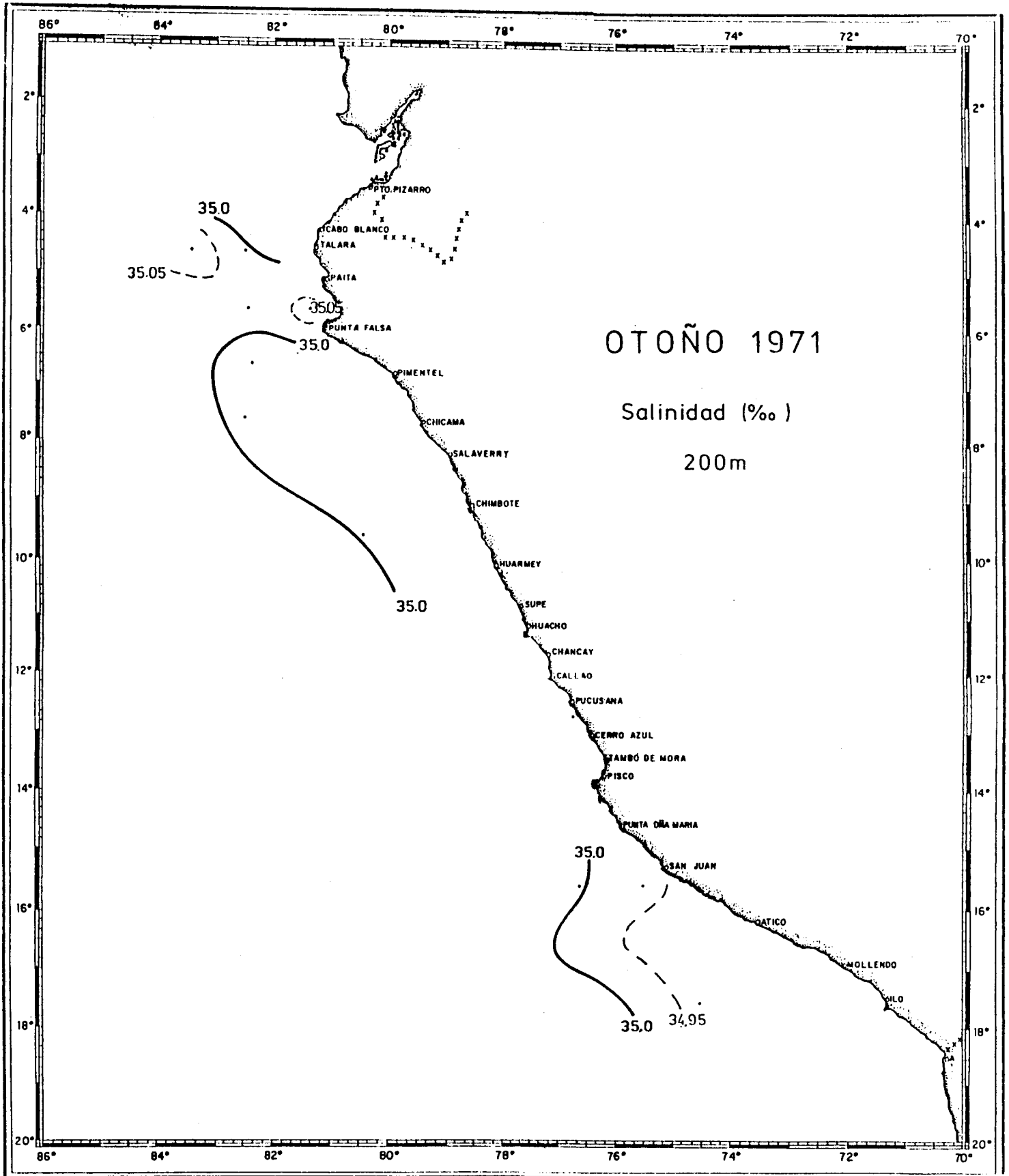


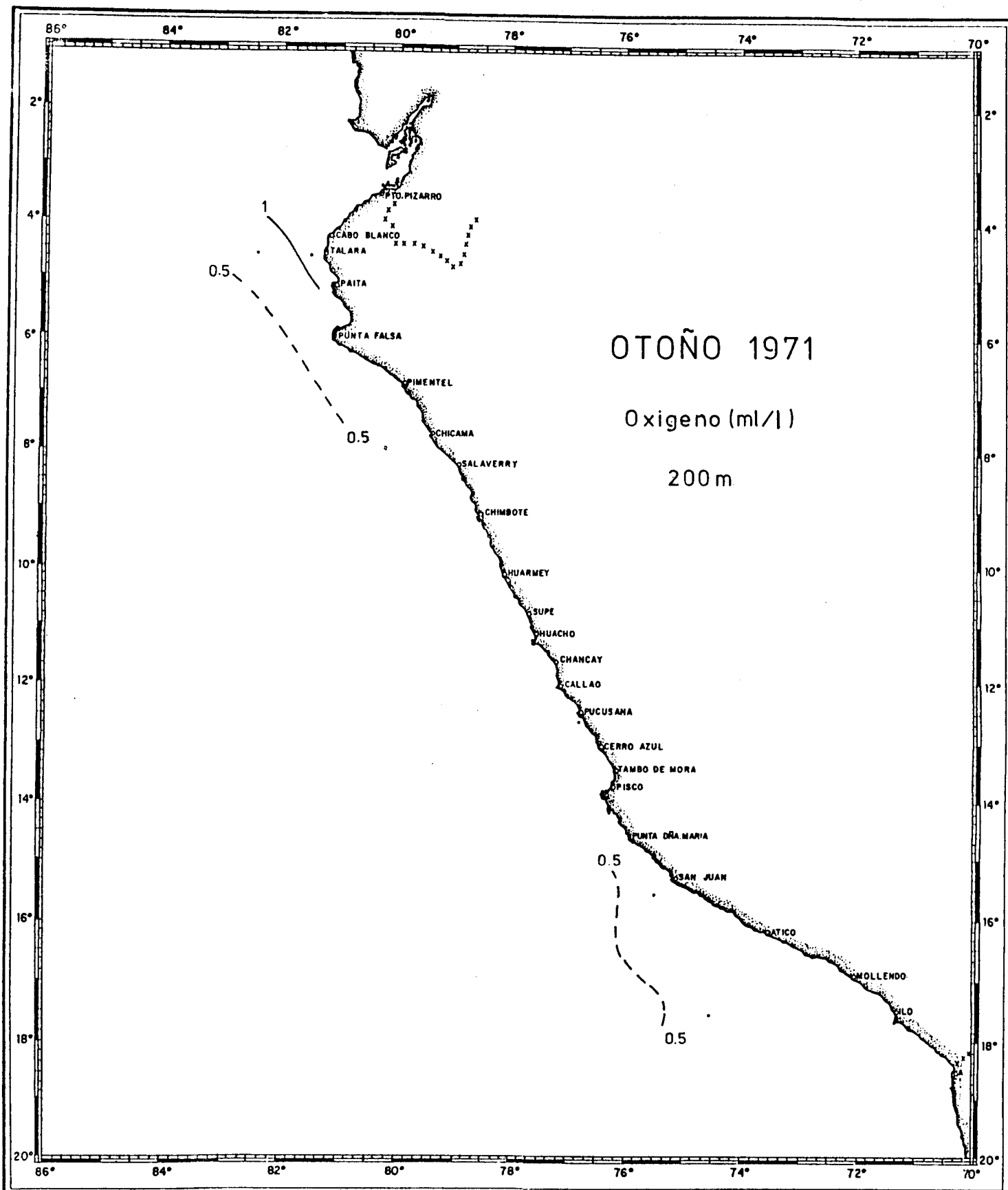


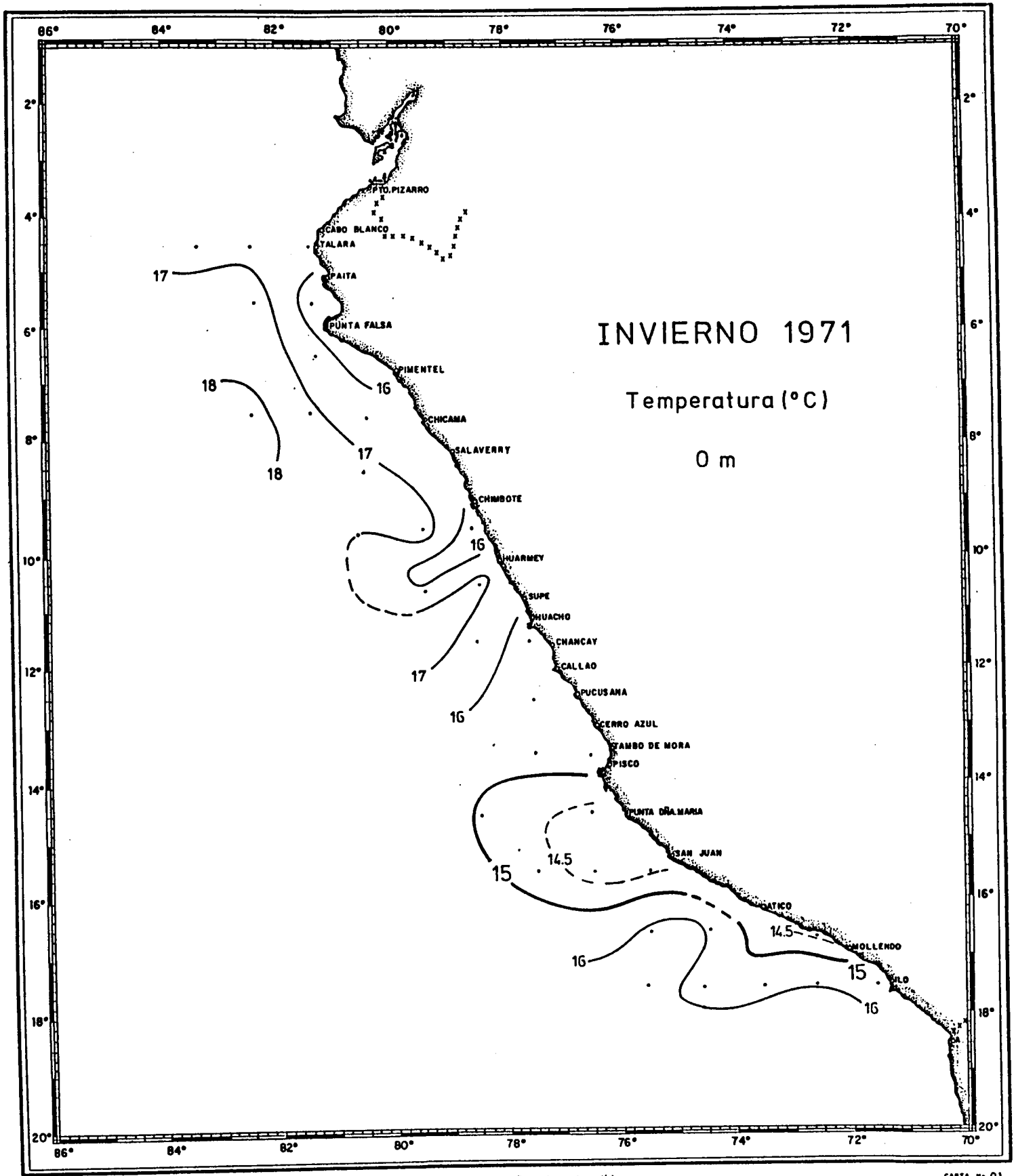


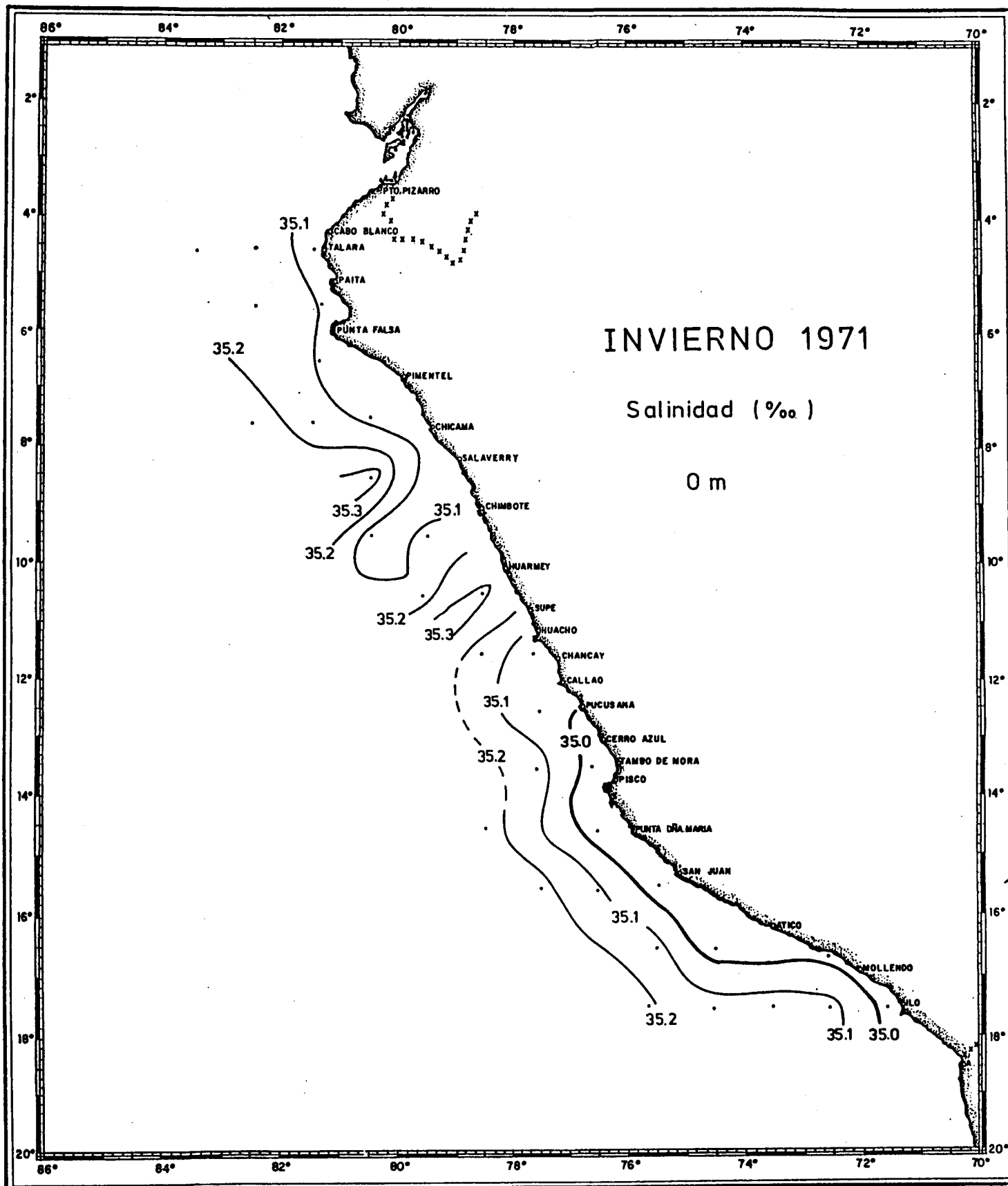


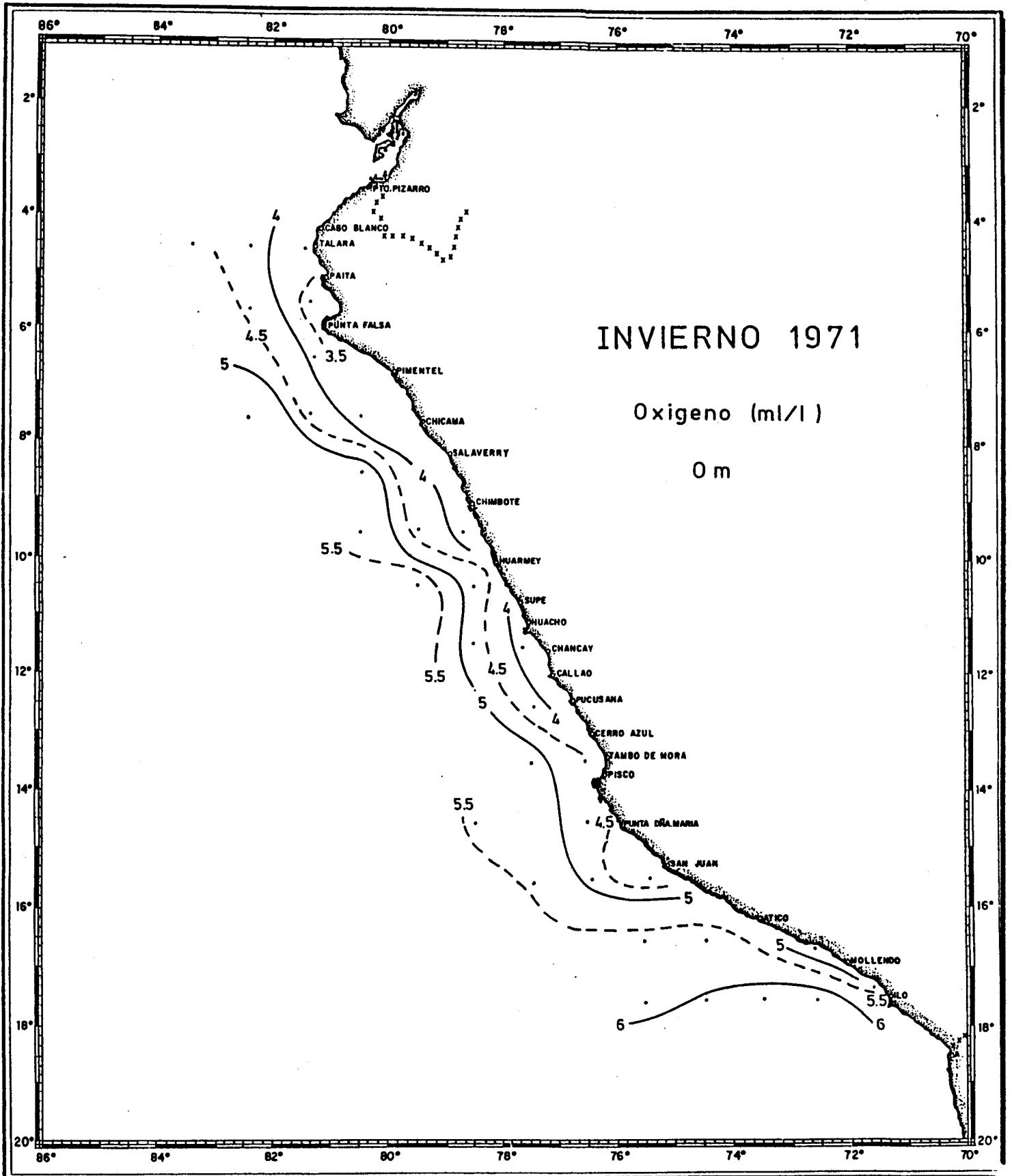


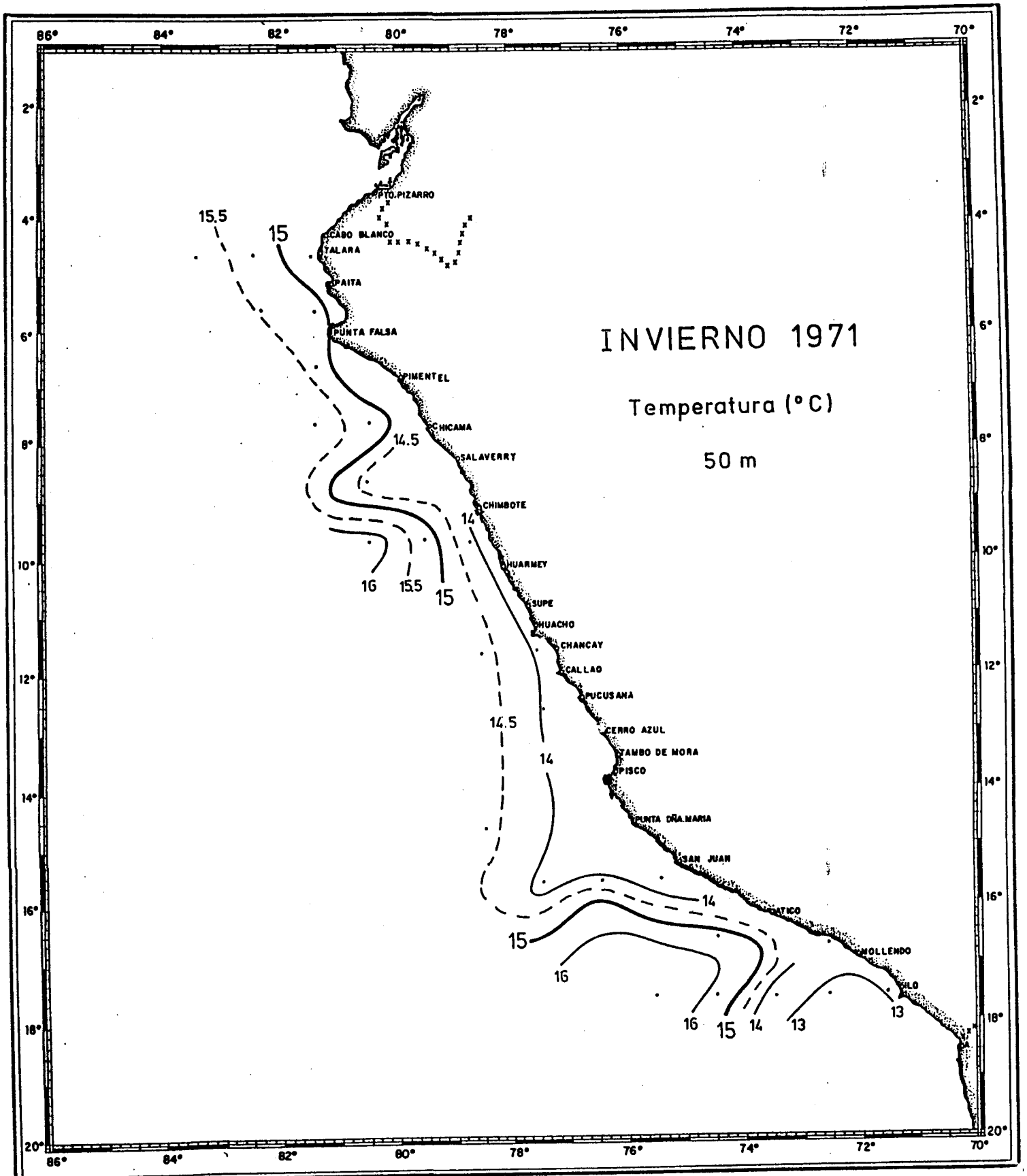


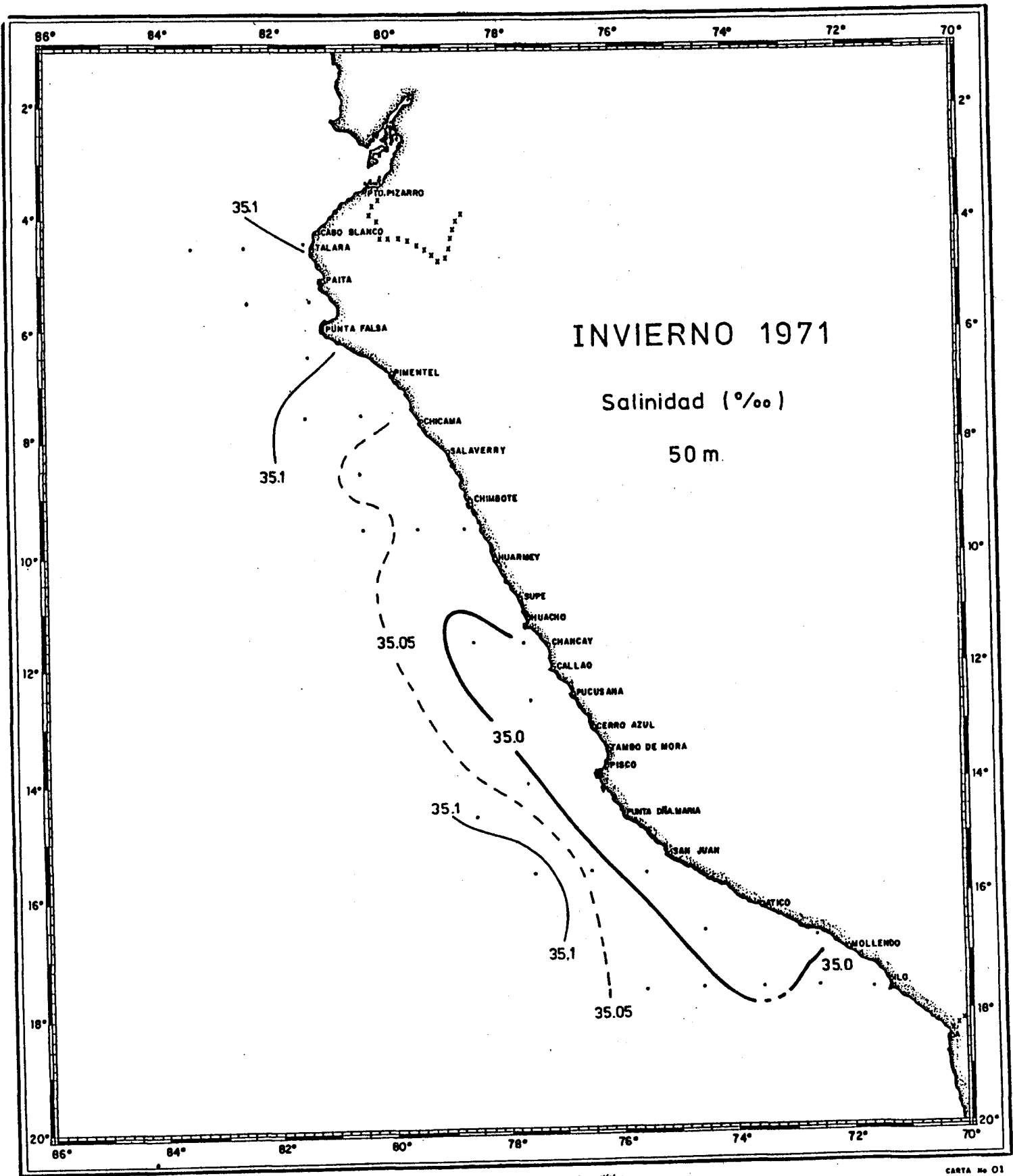


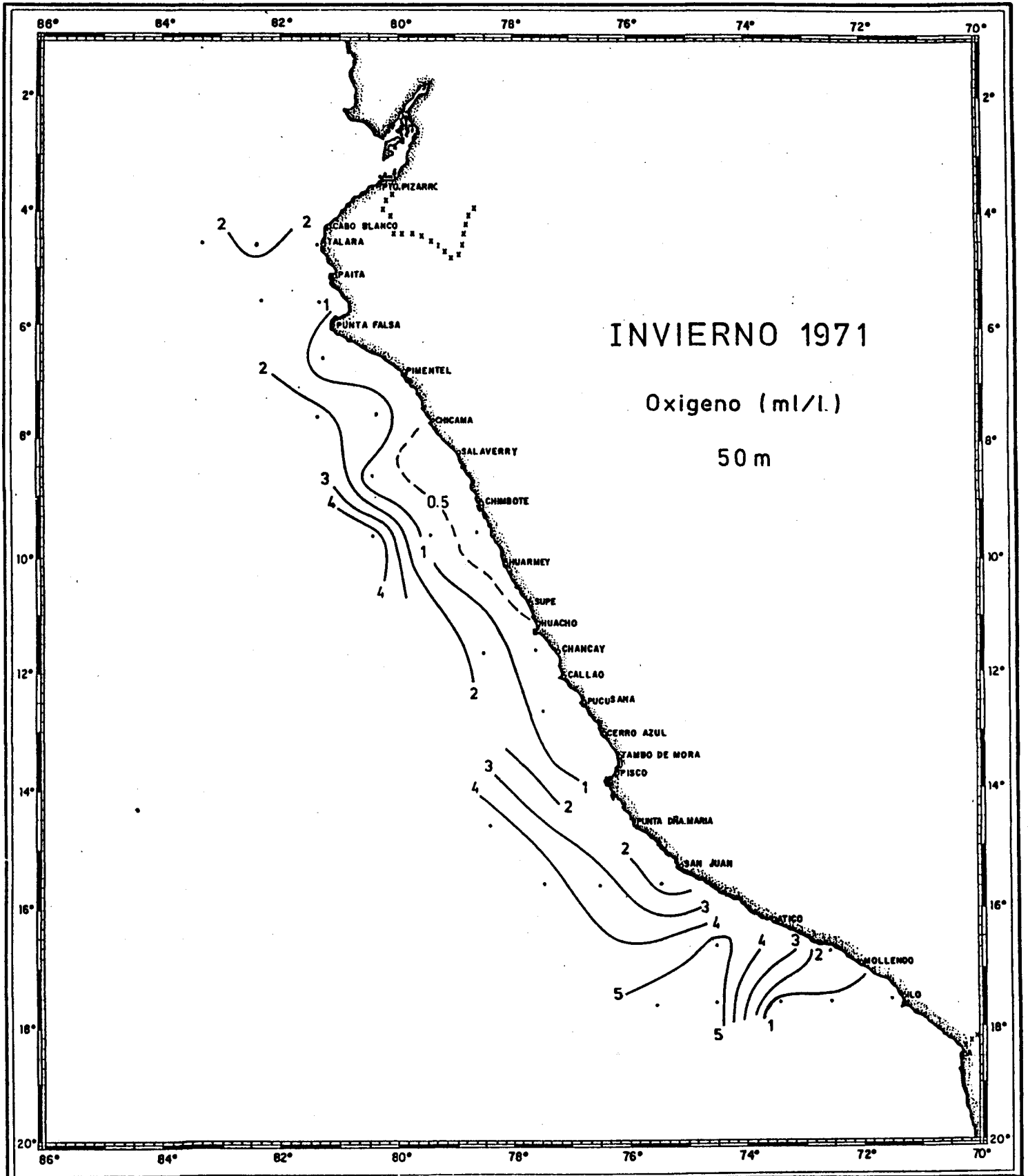


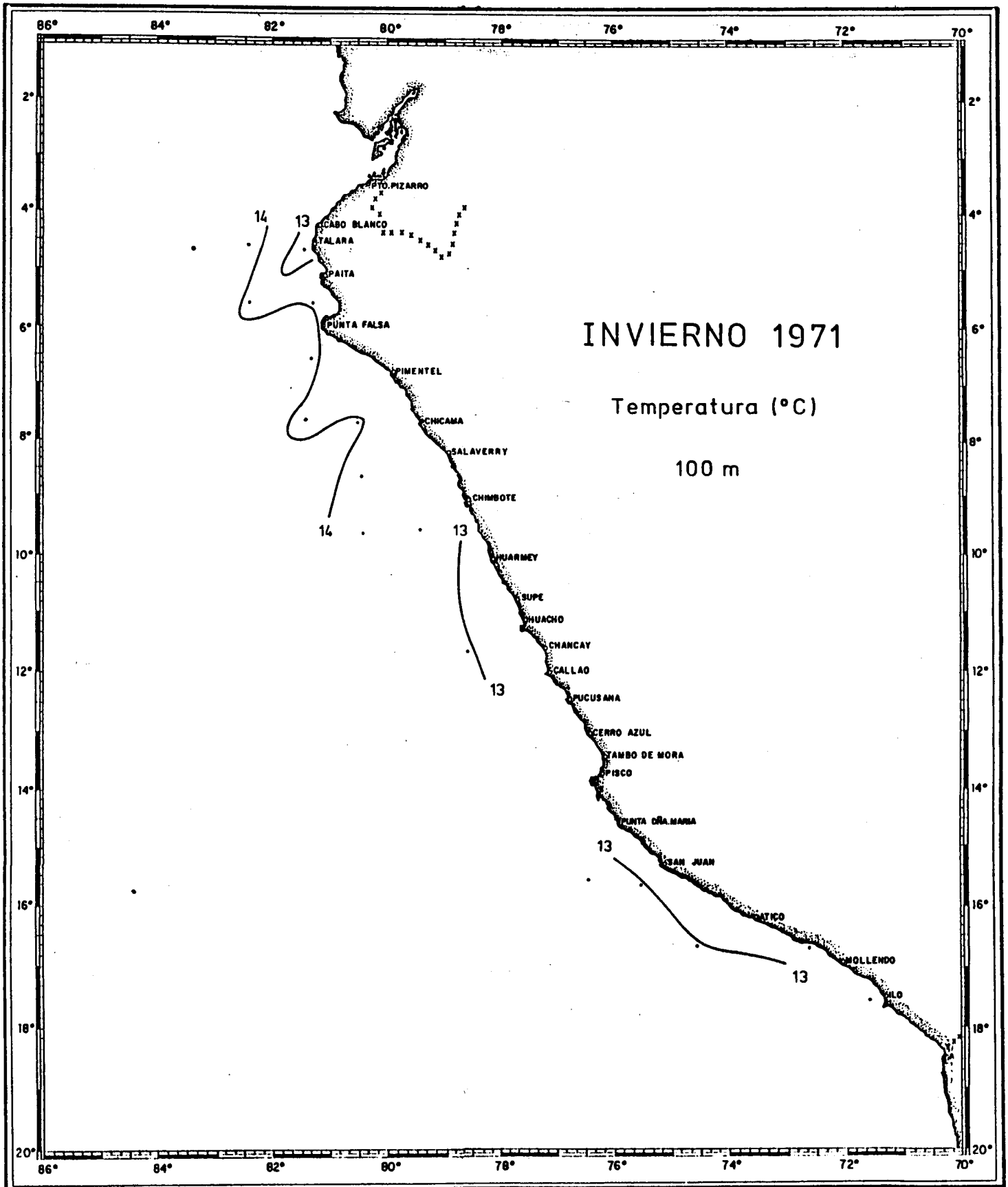


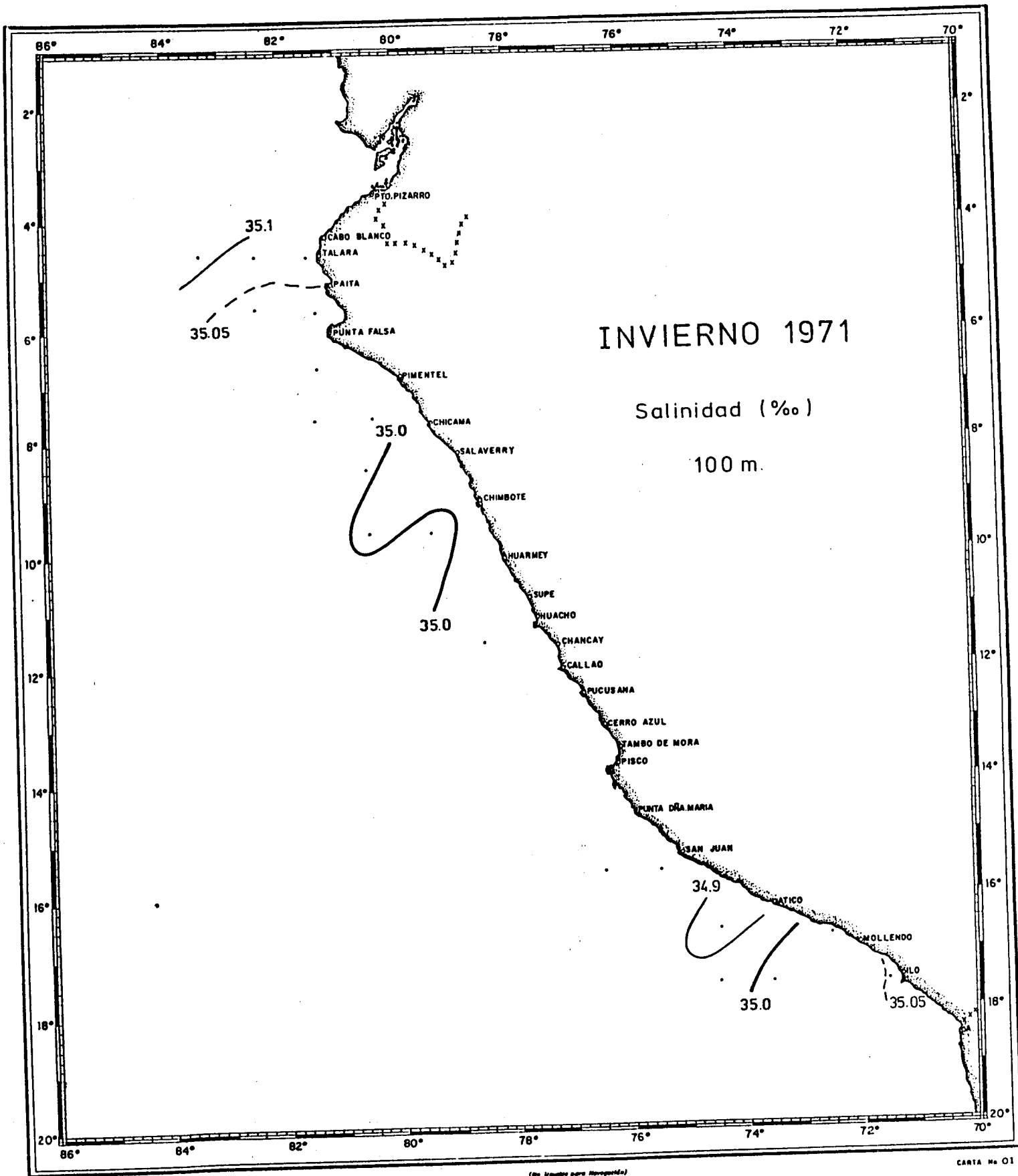


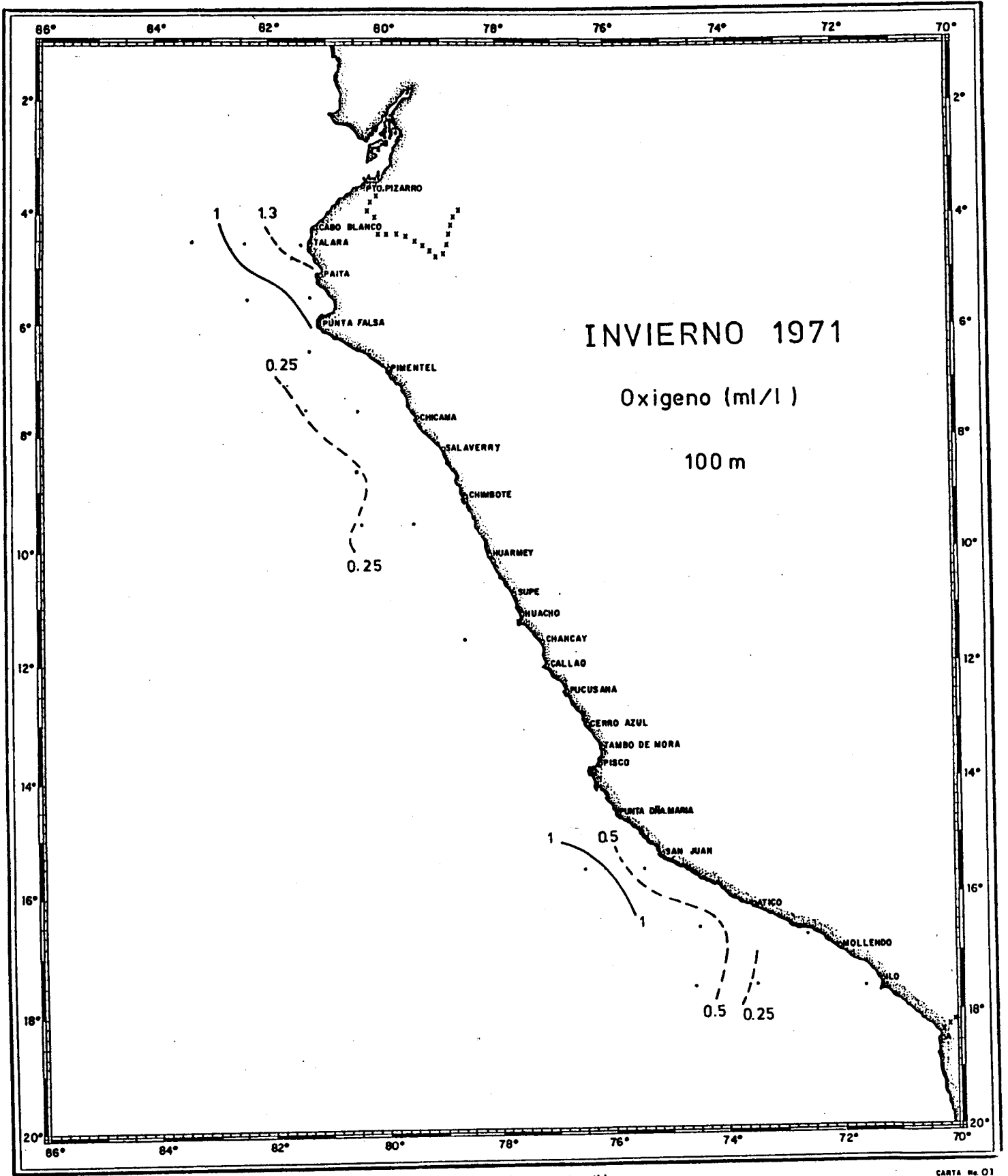


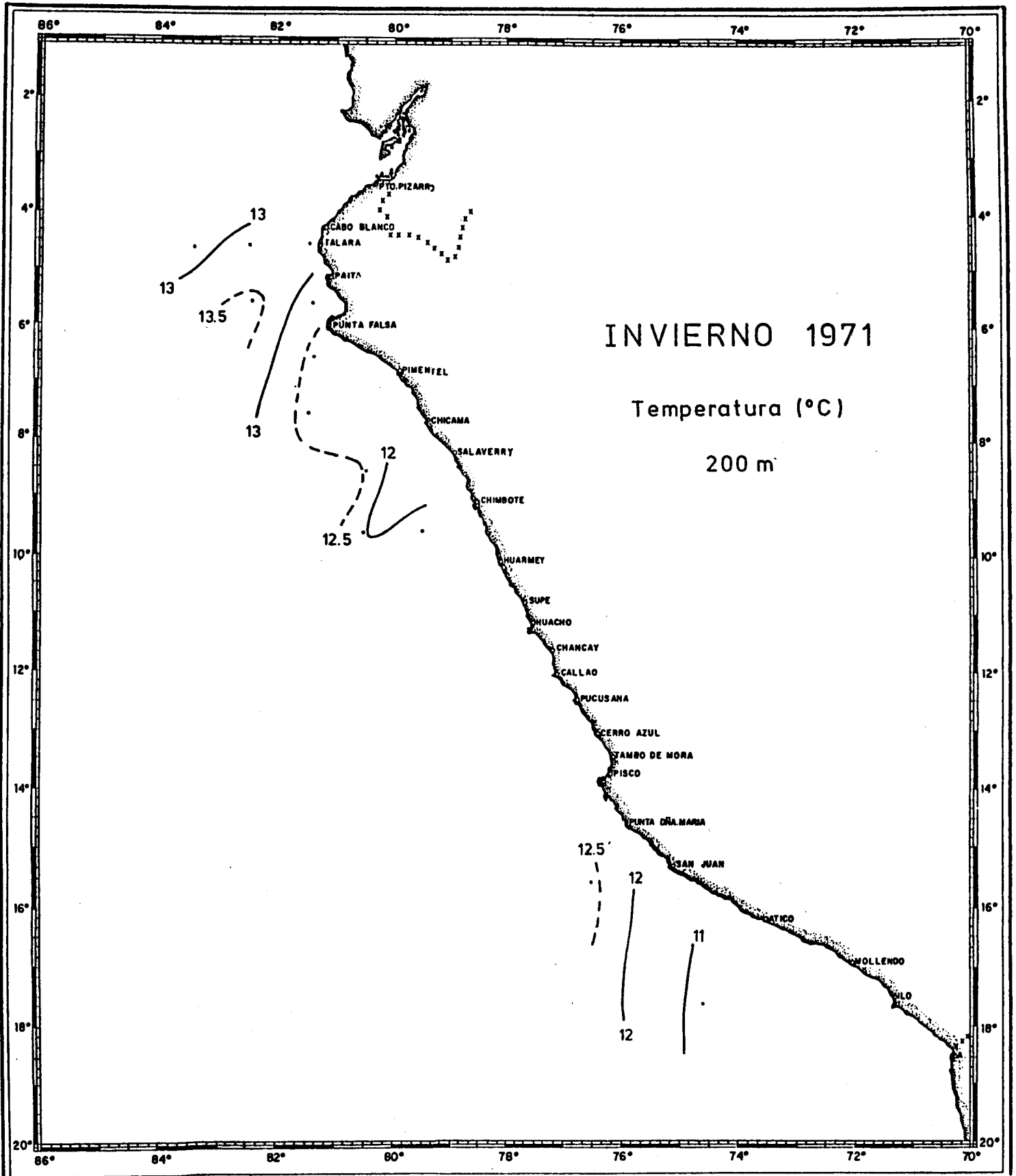


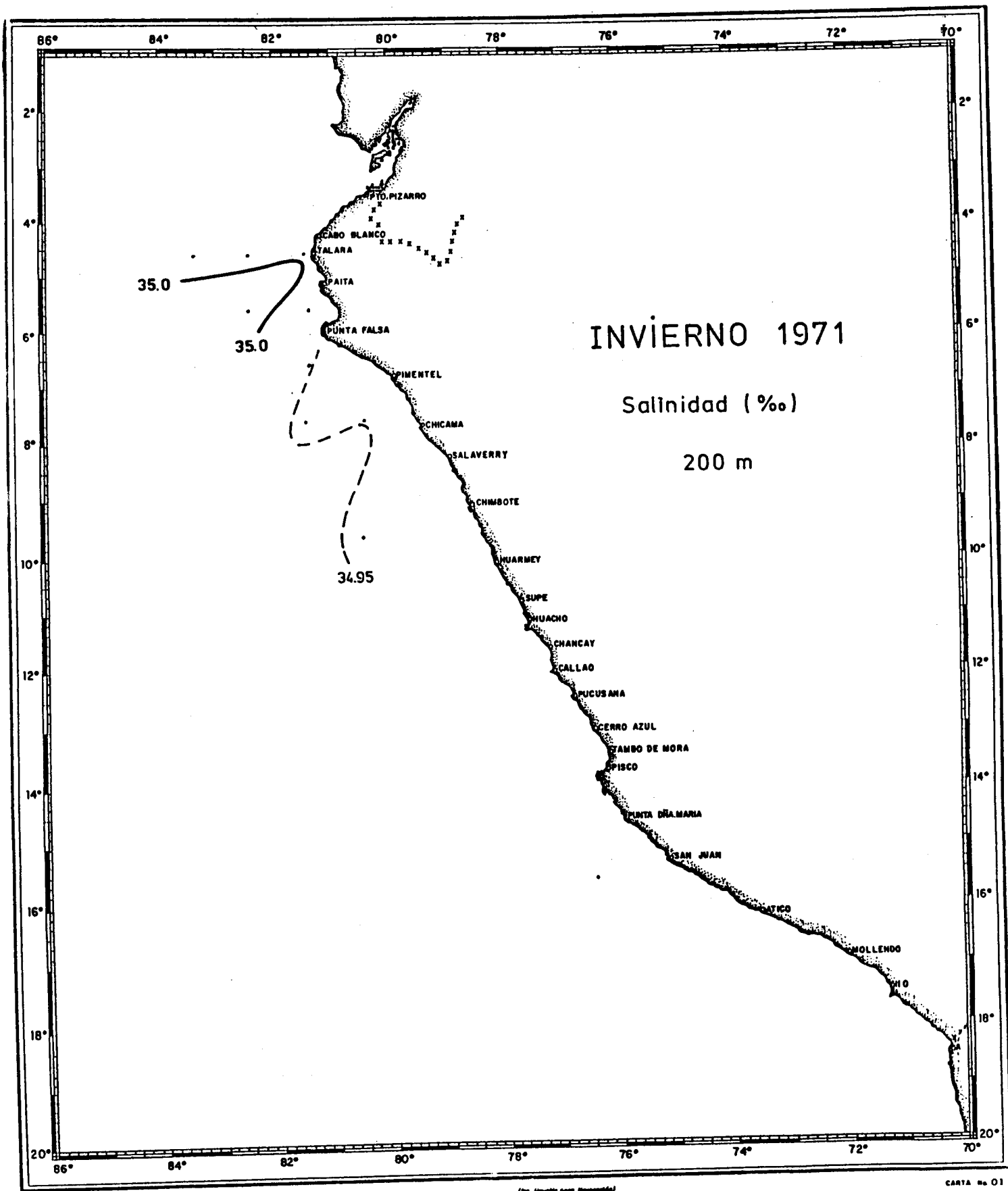


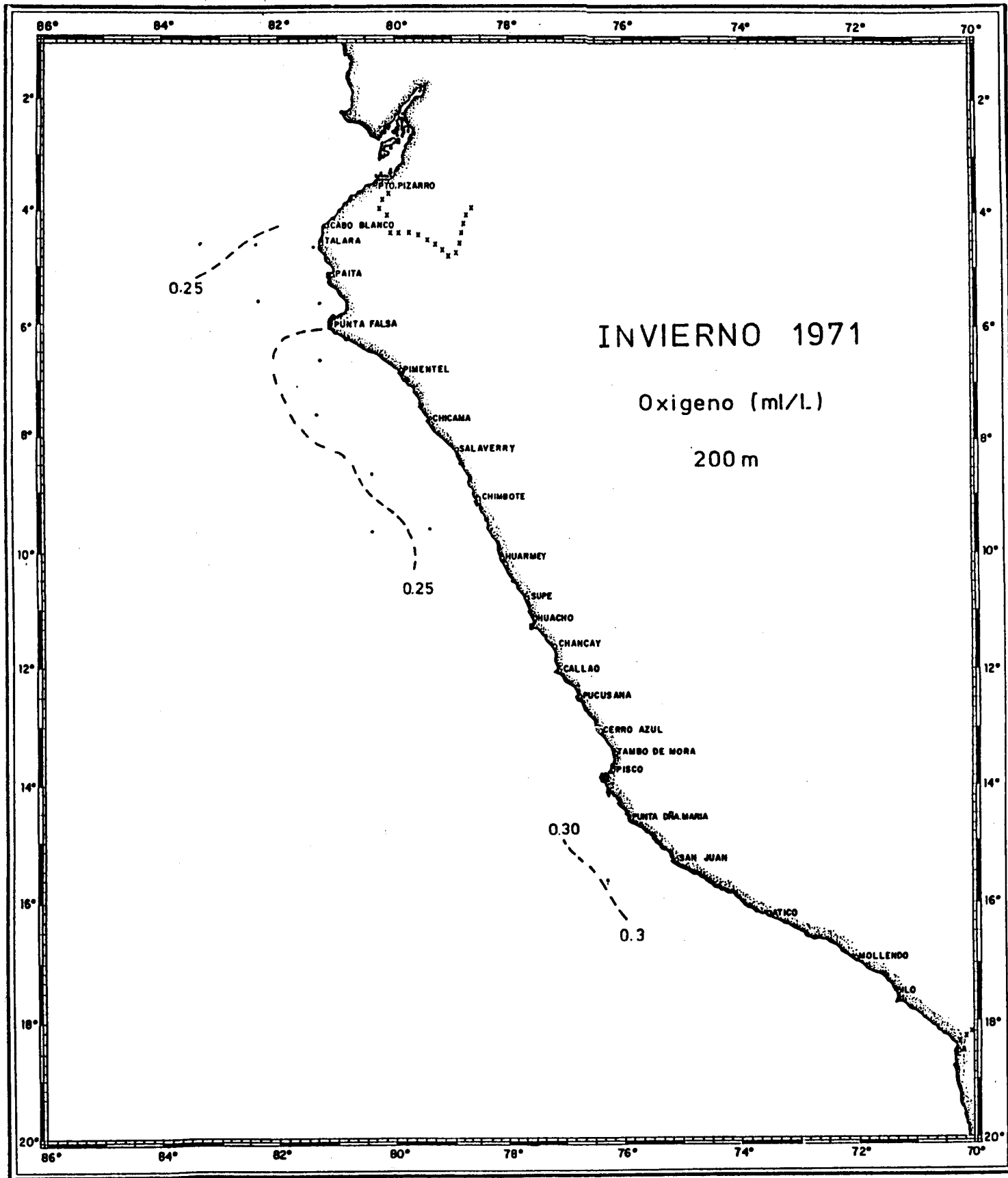


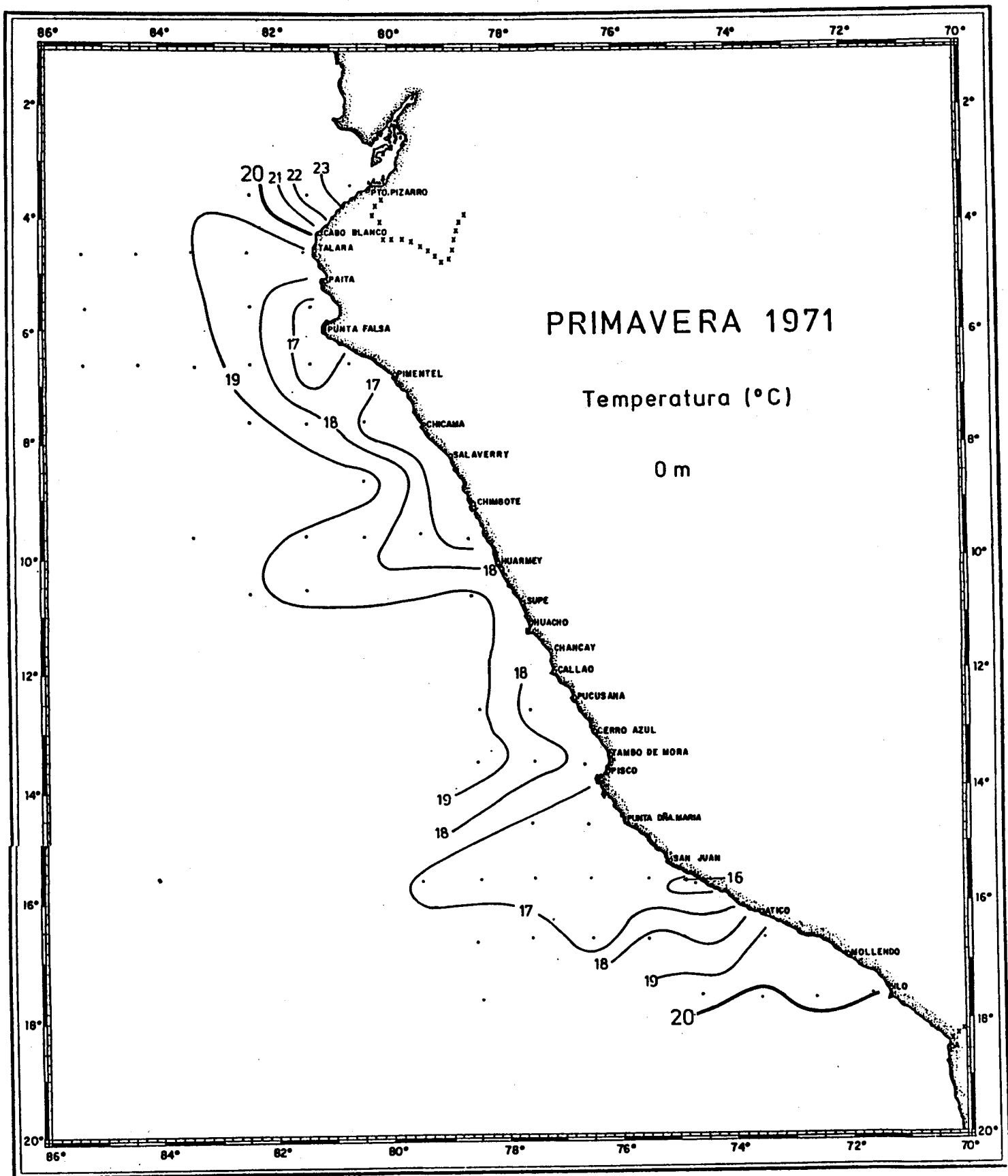


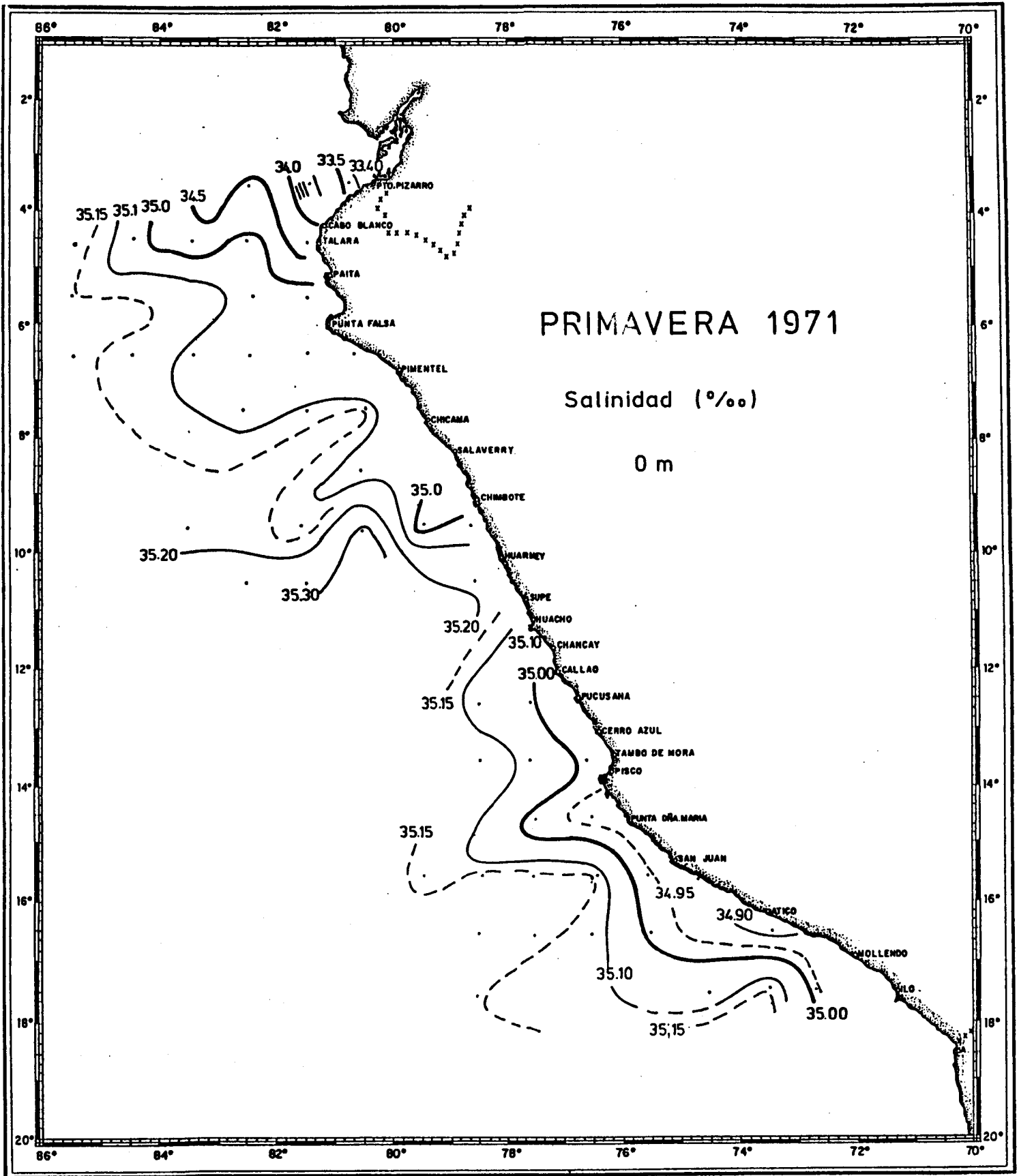


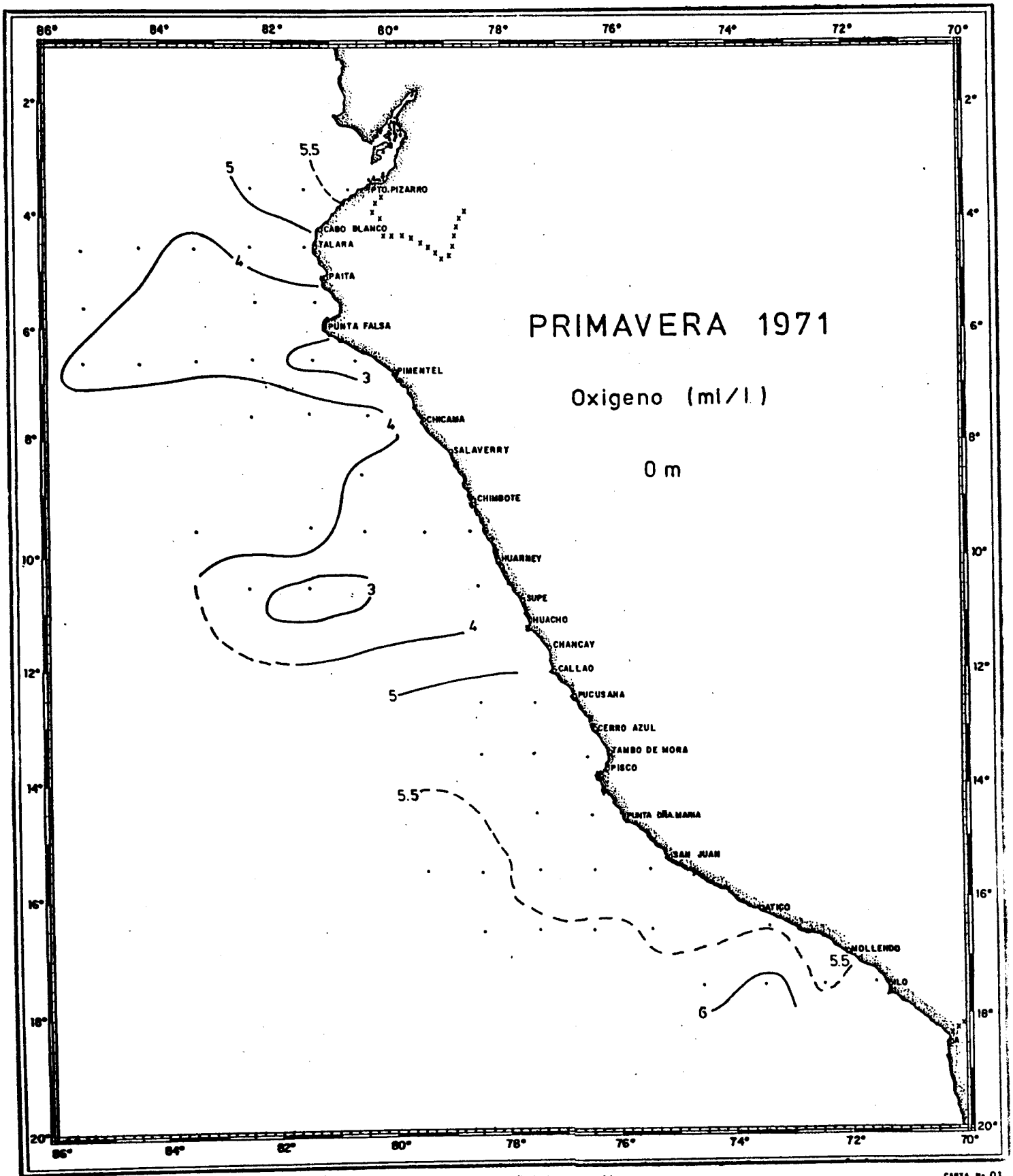


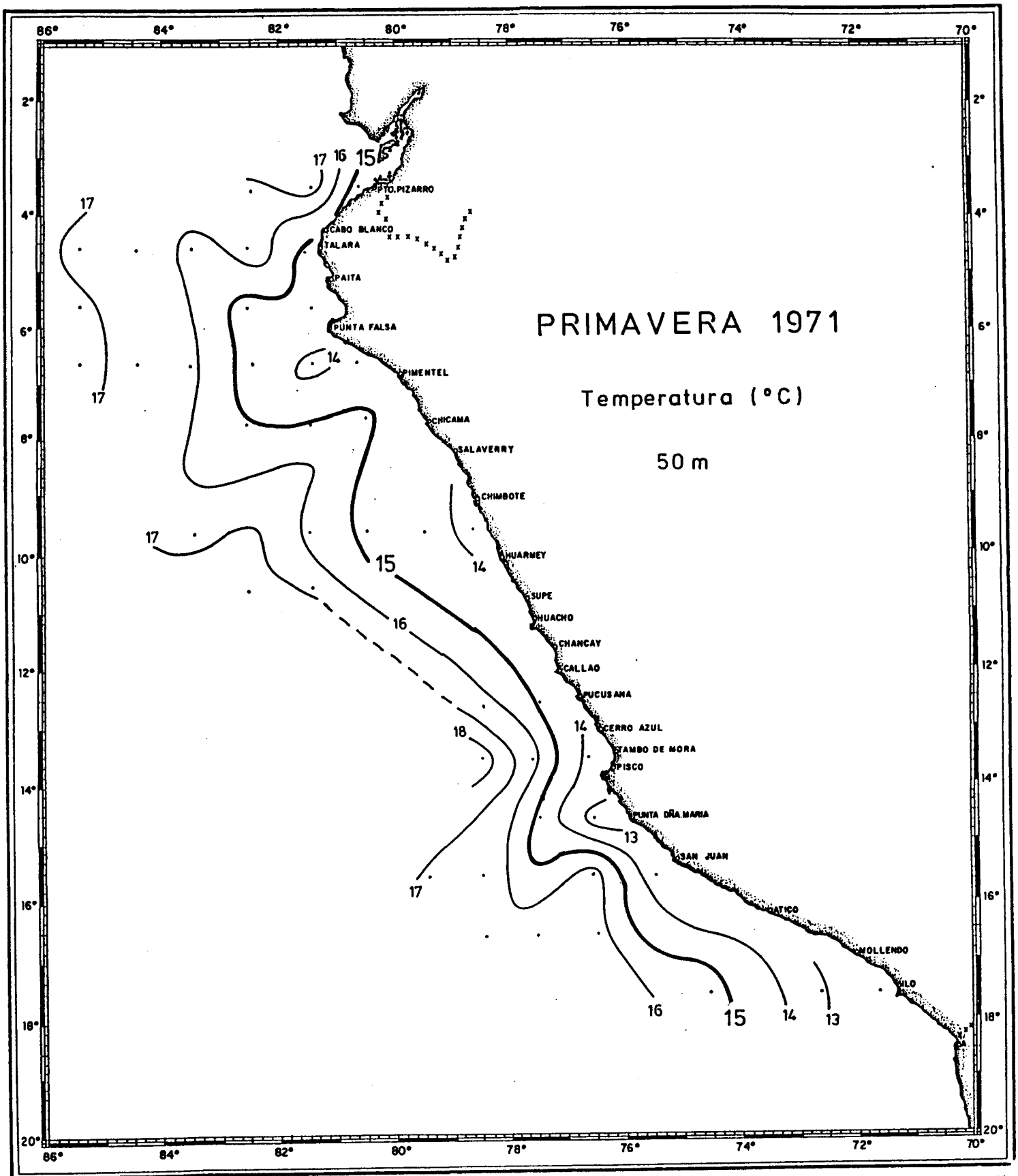


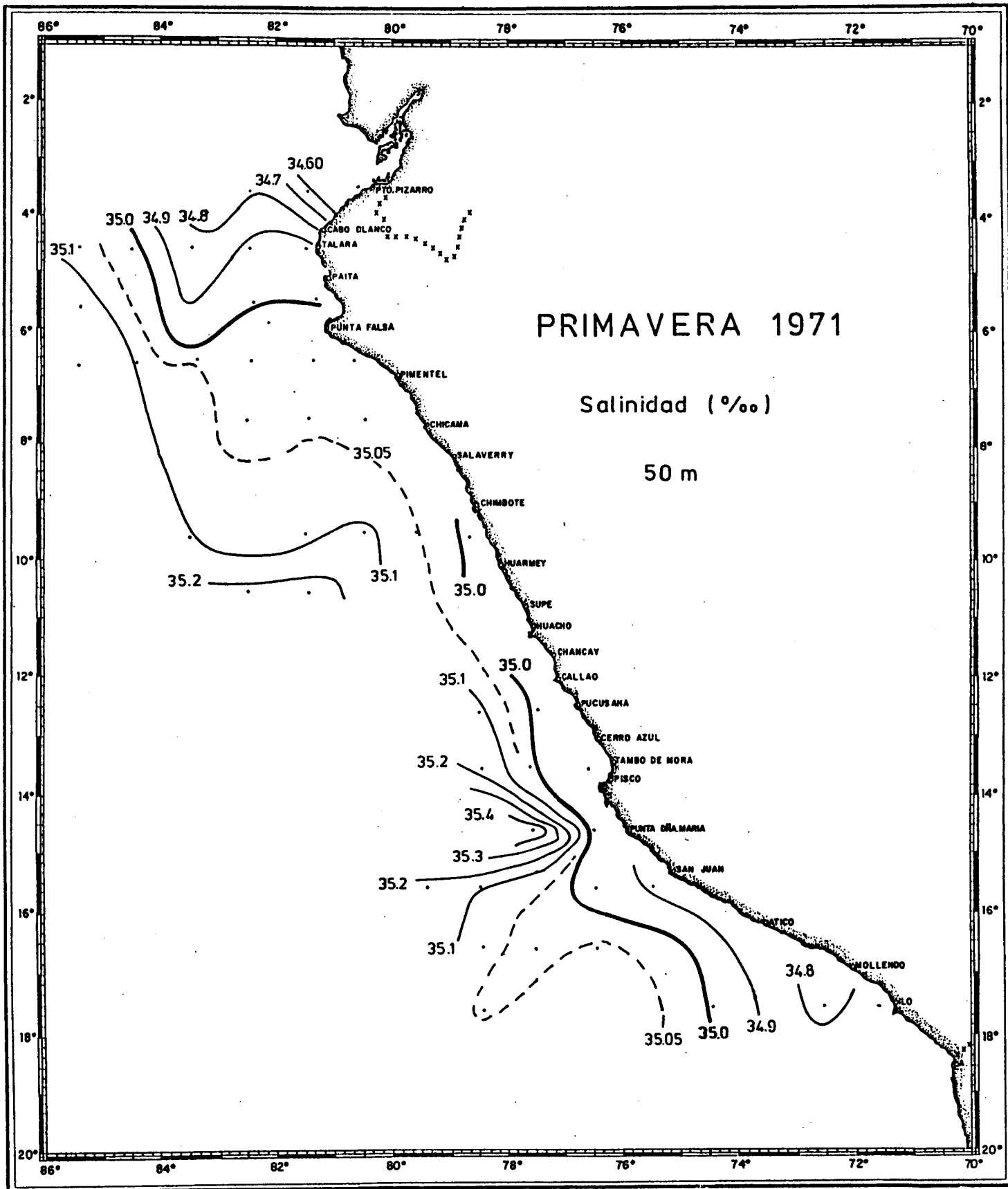


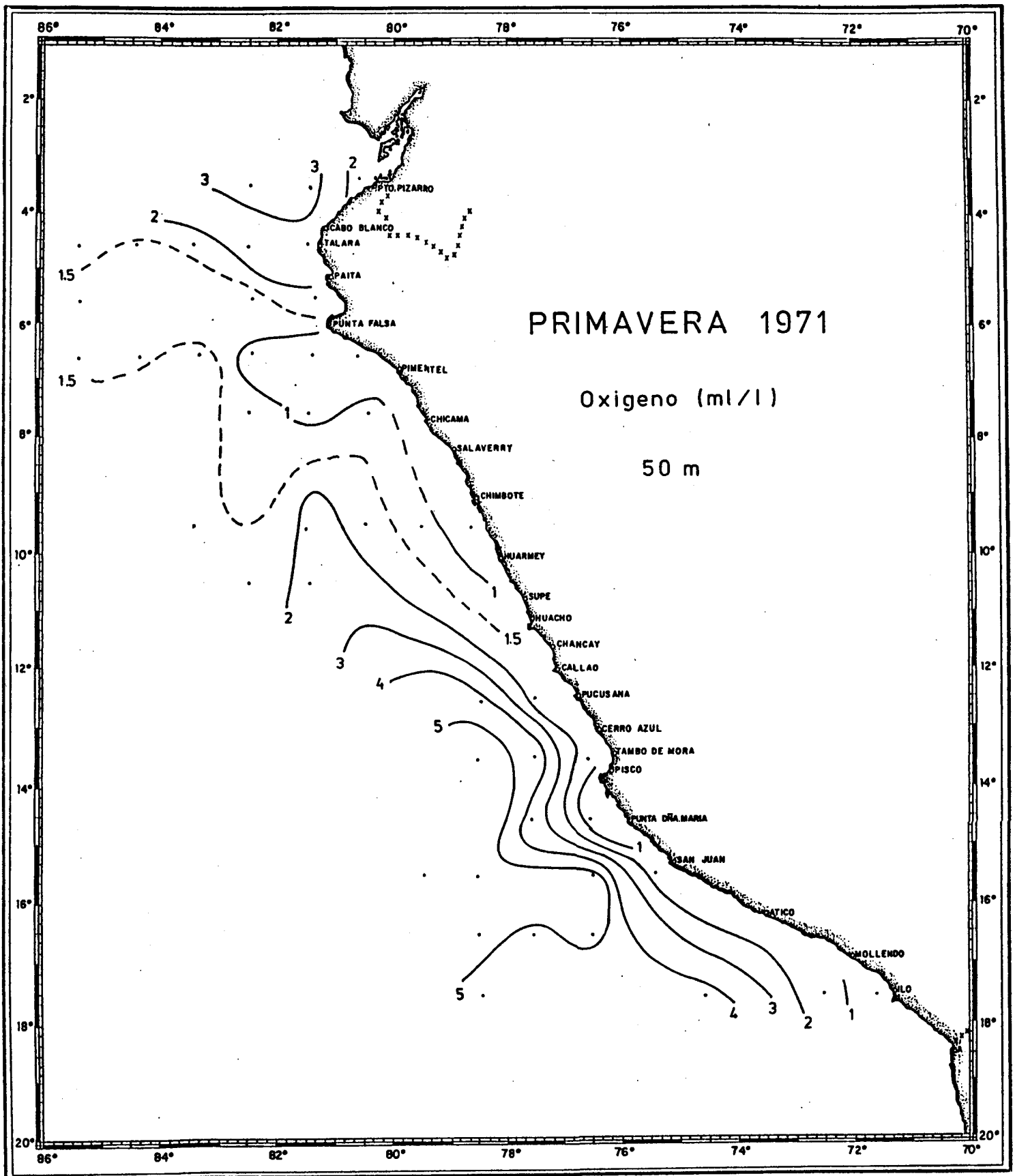


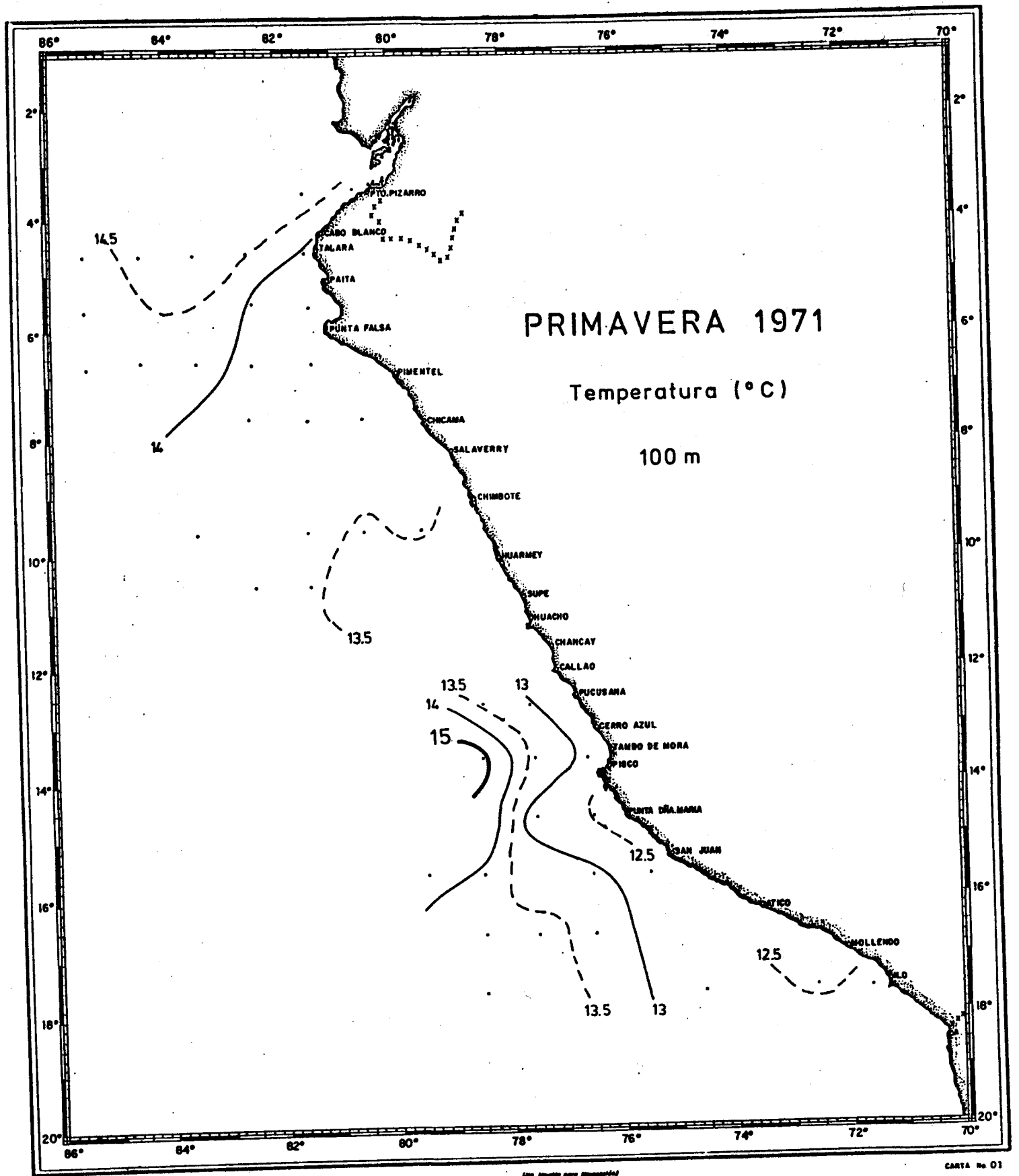






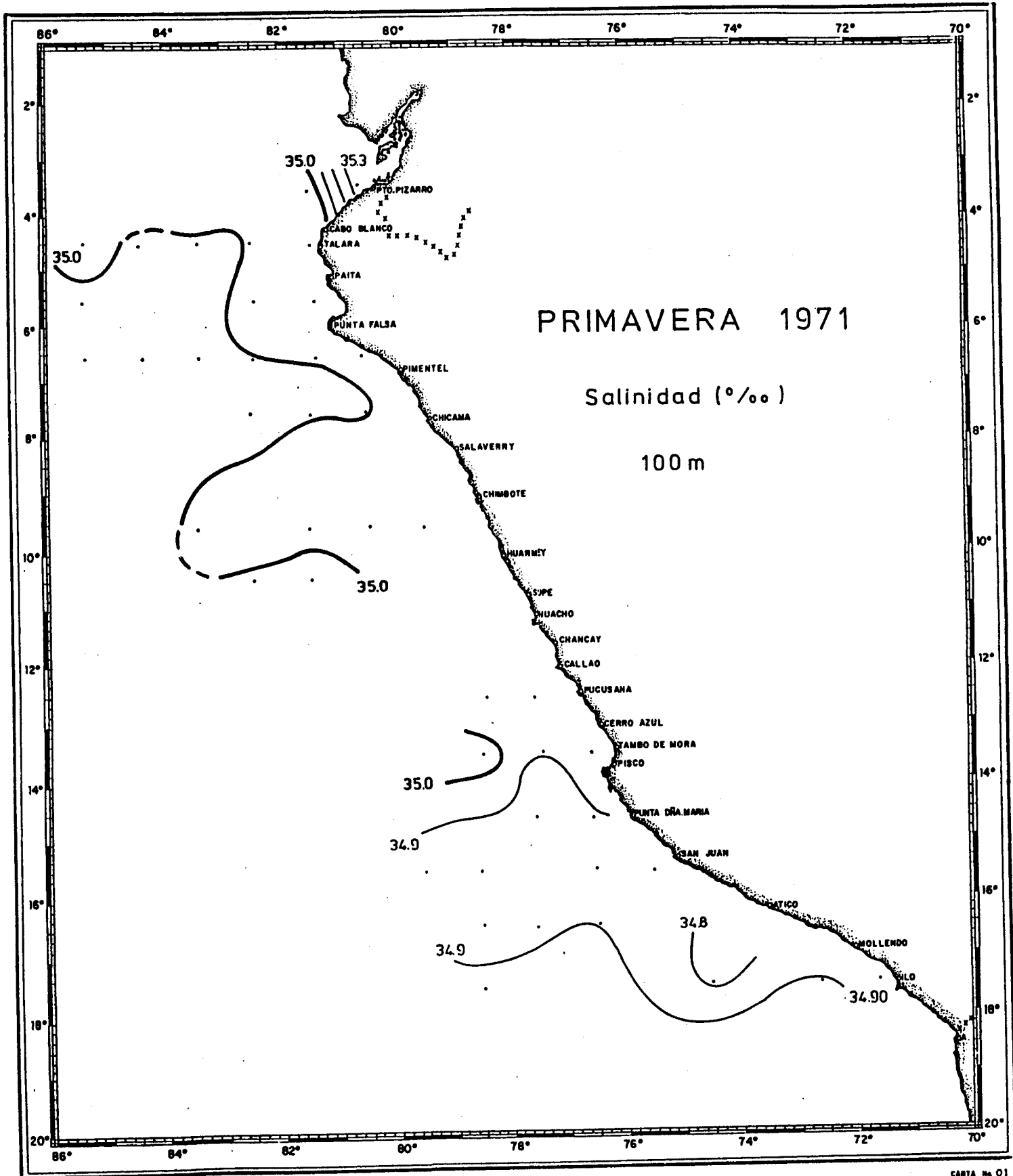


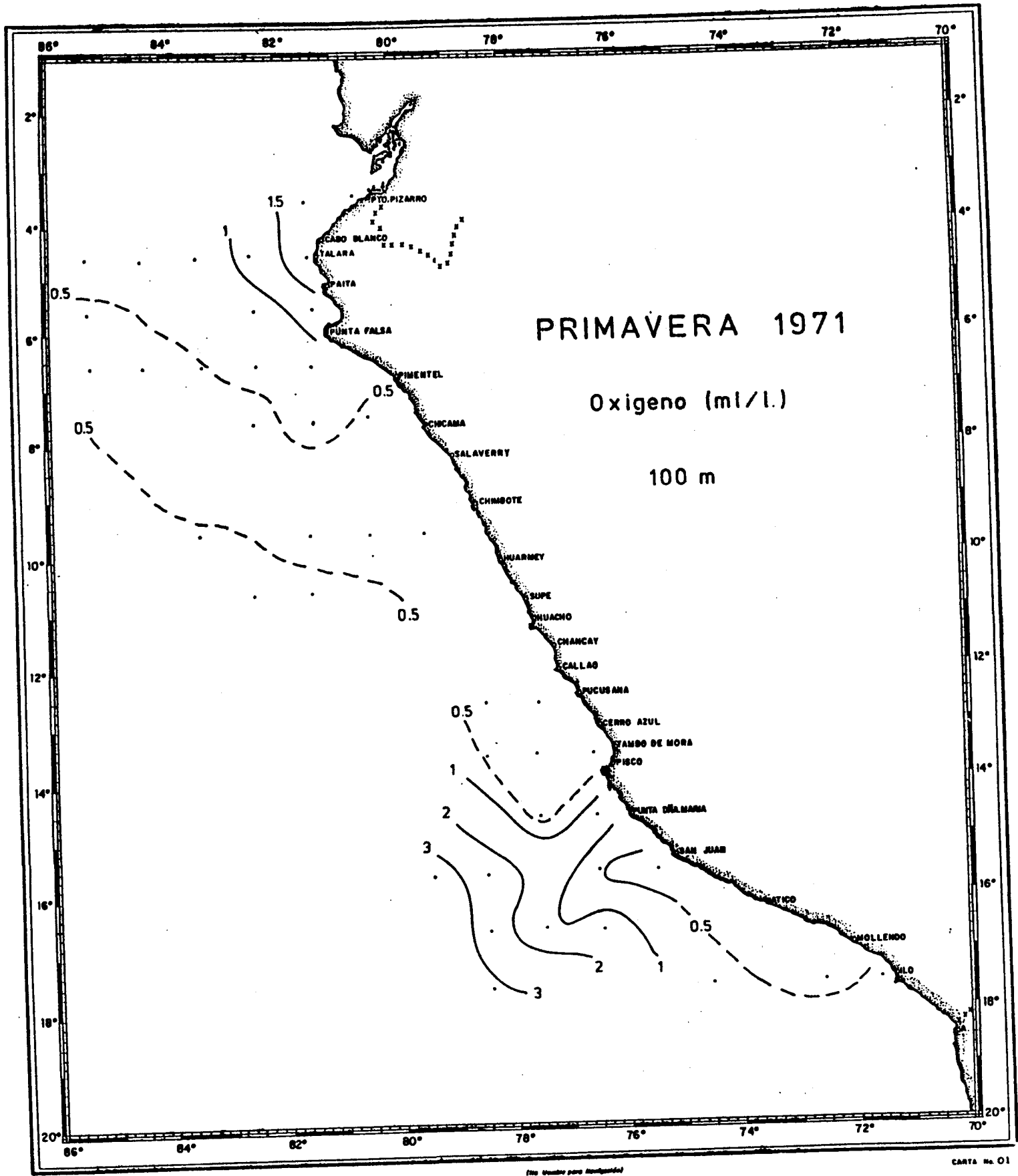


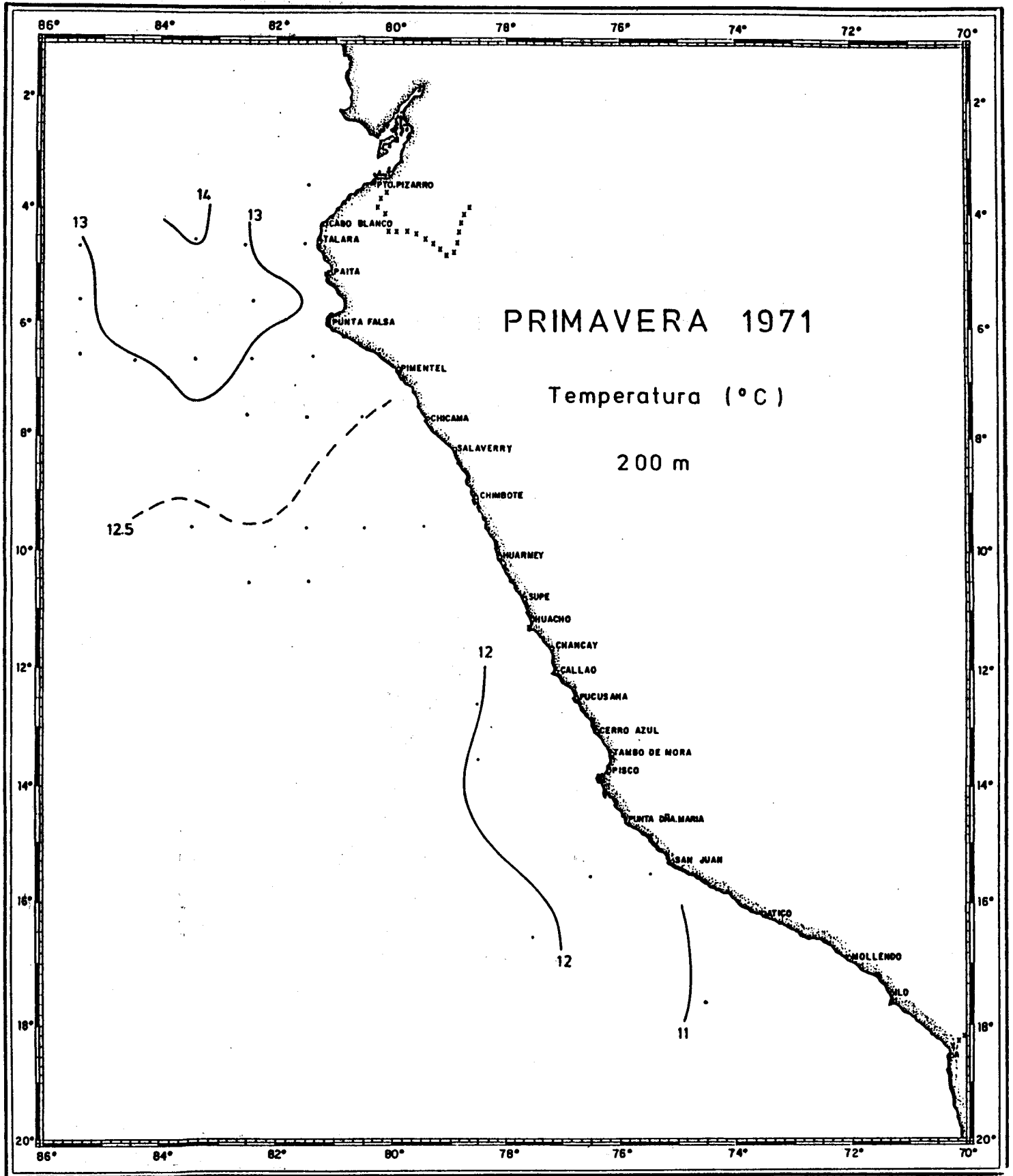


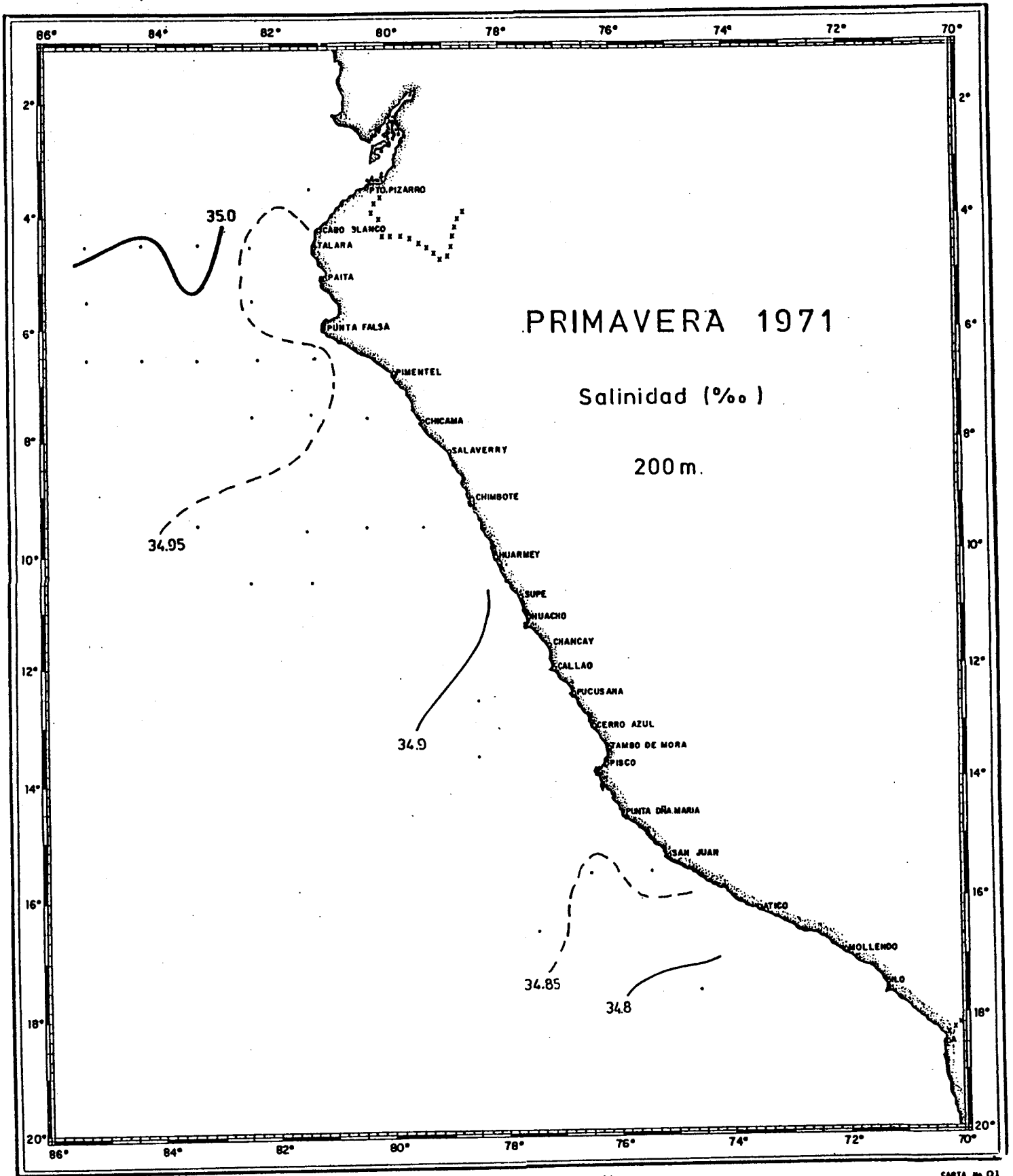
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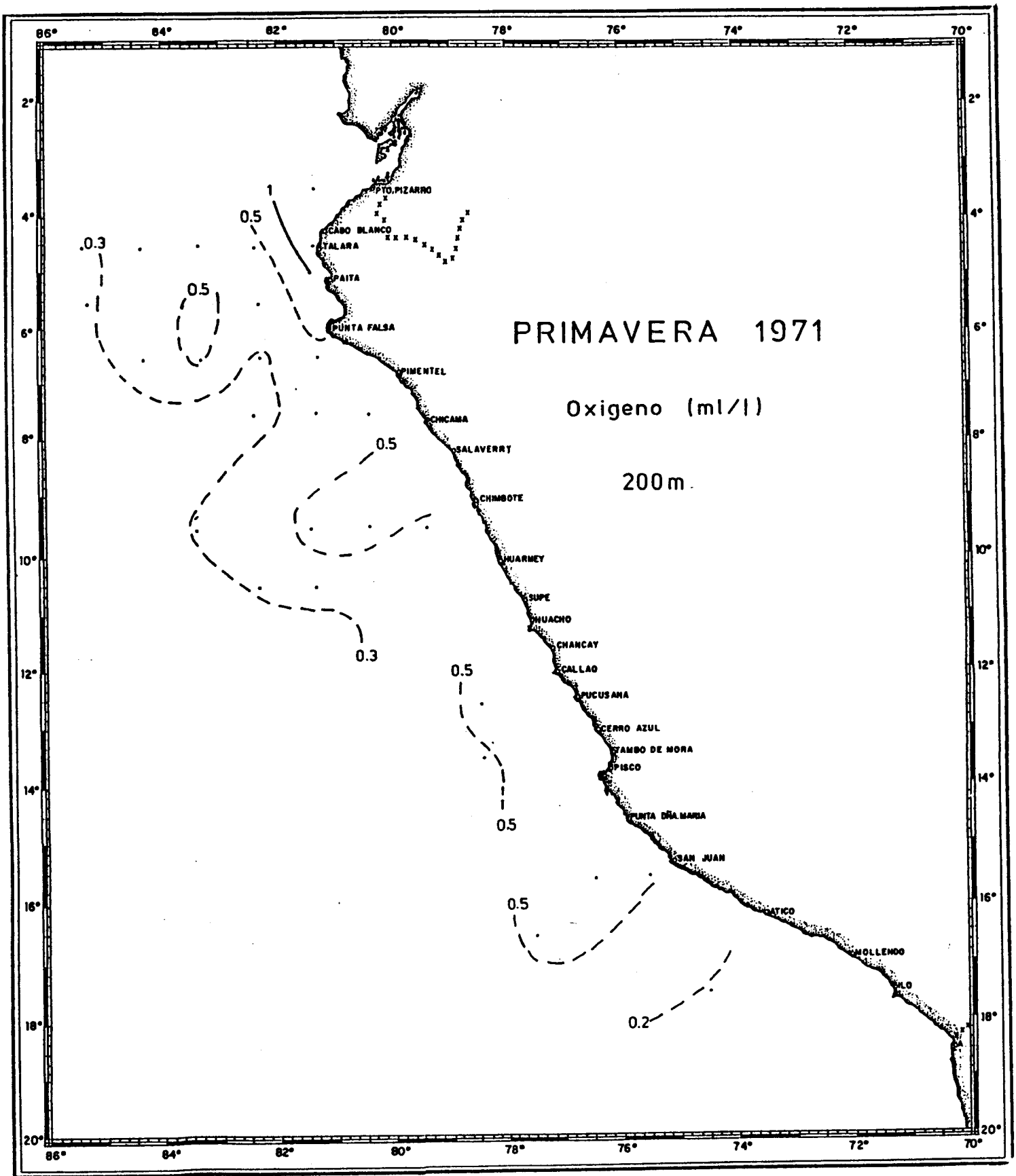
CARTA No 01

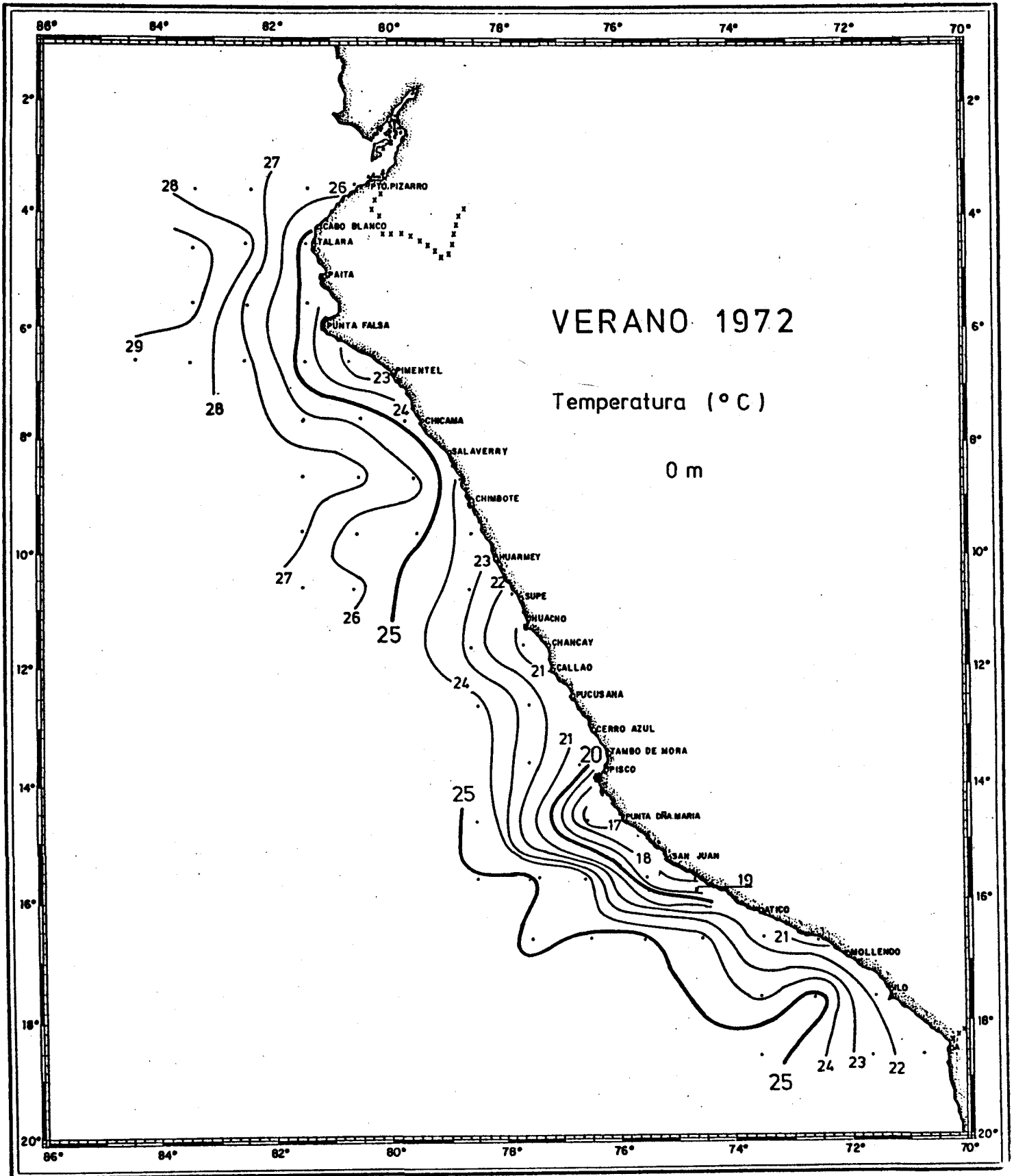


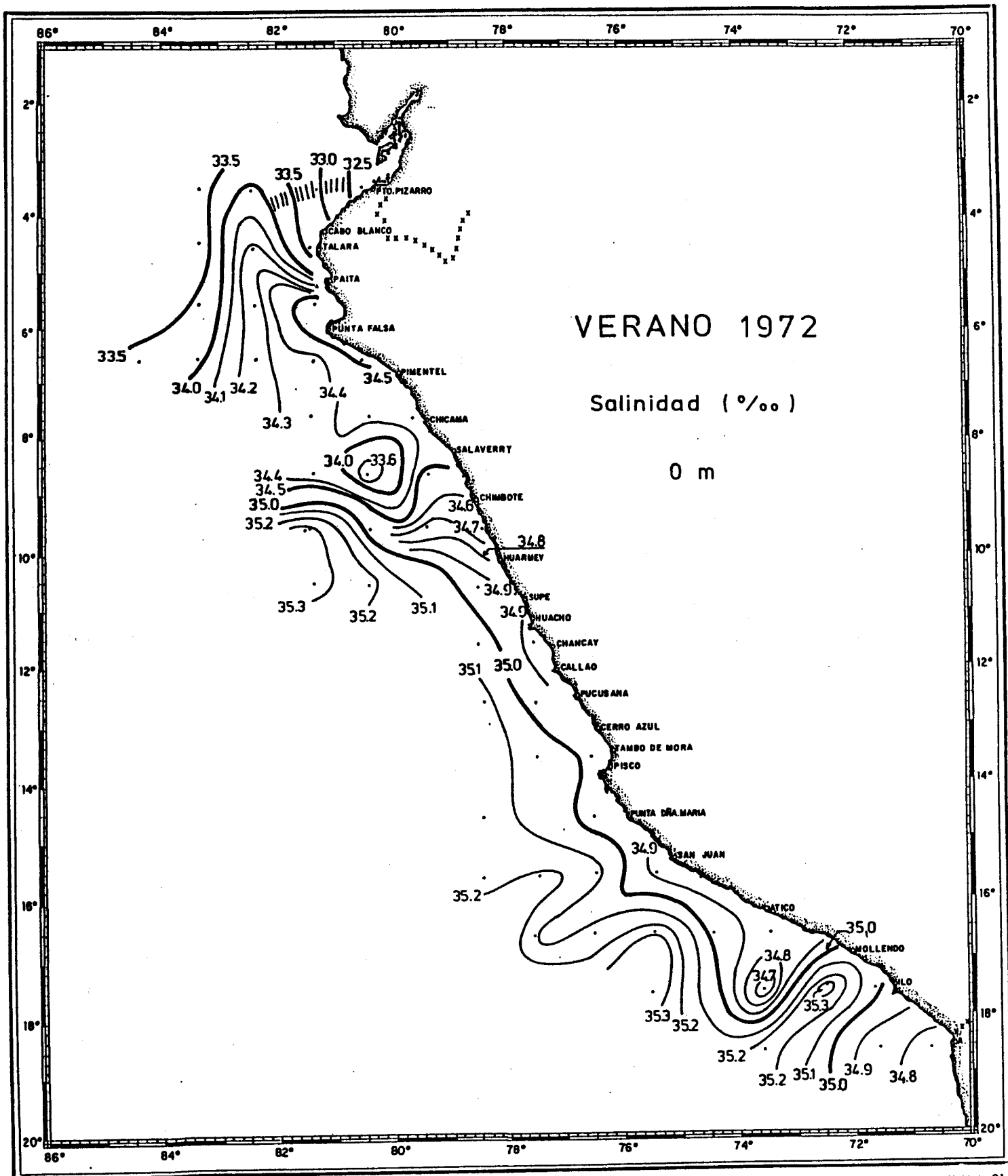


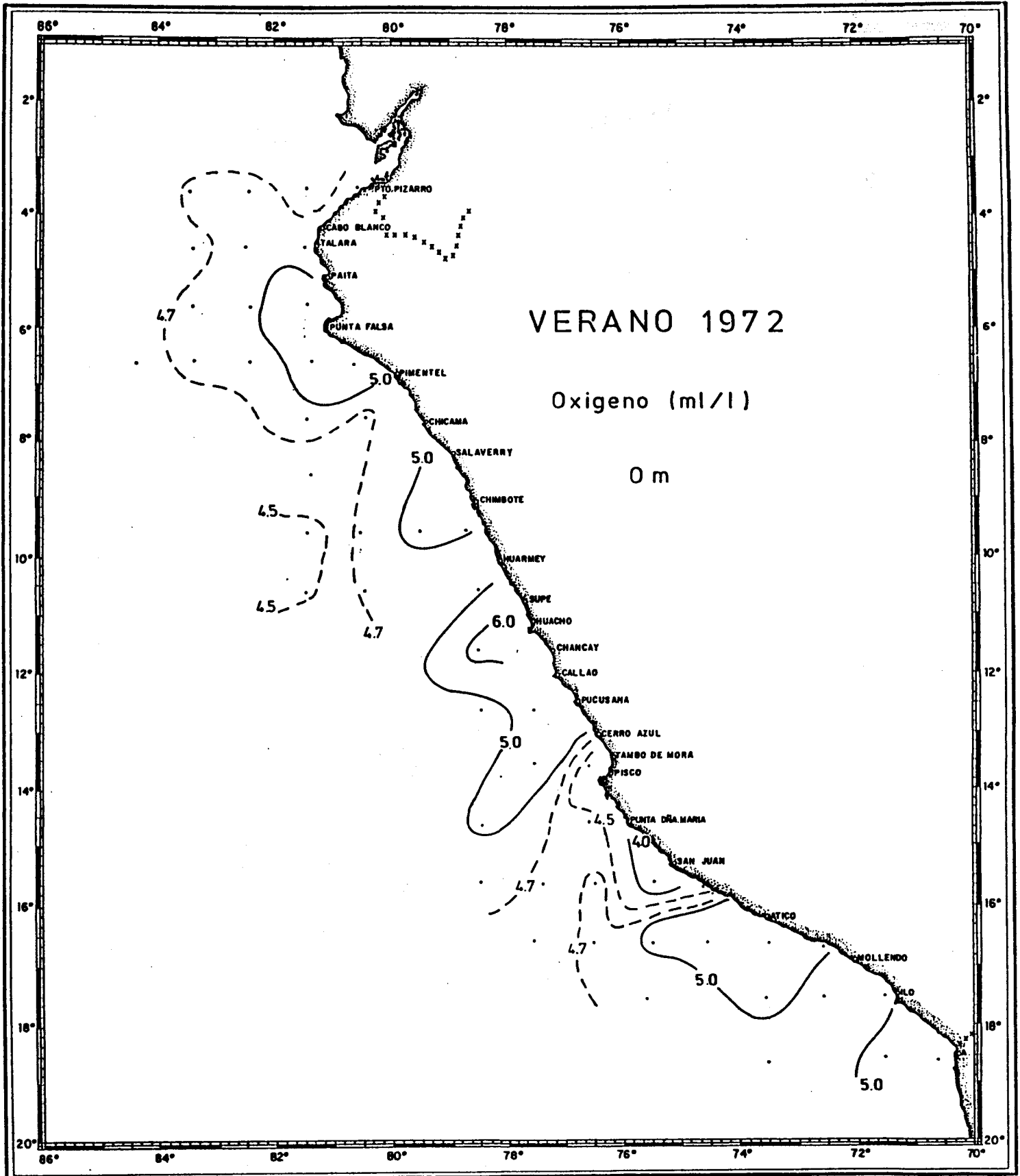


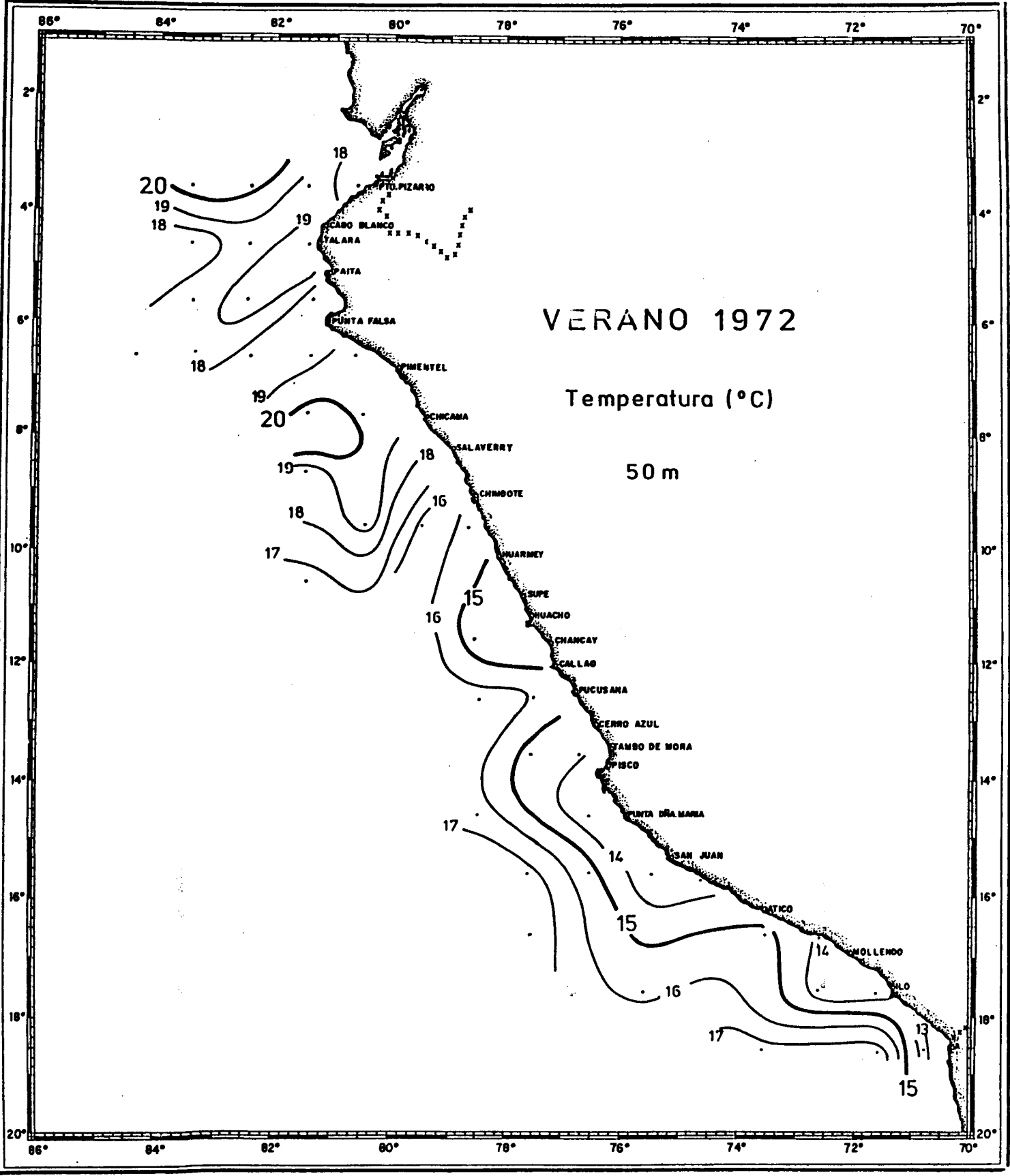


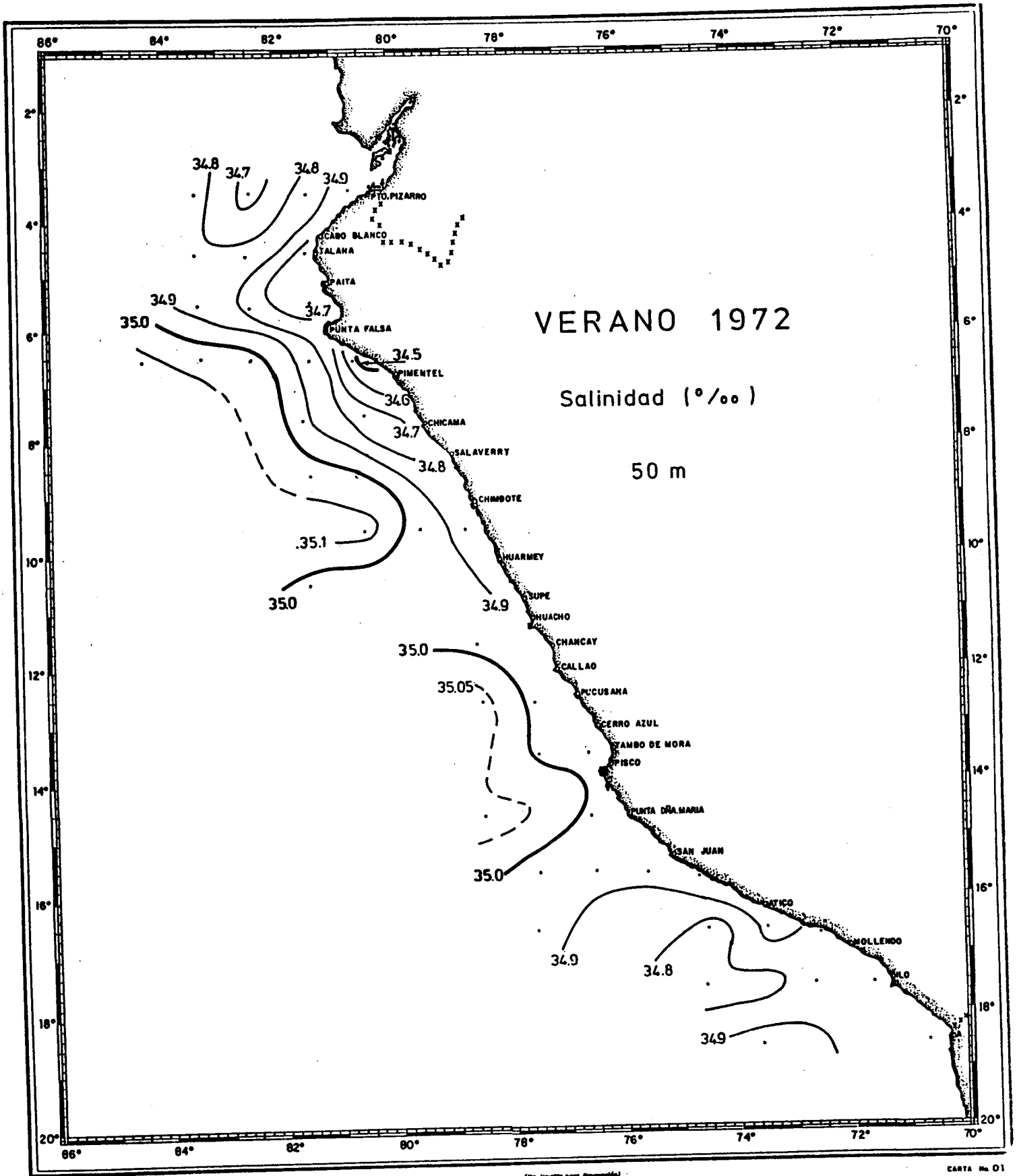






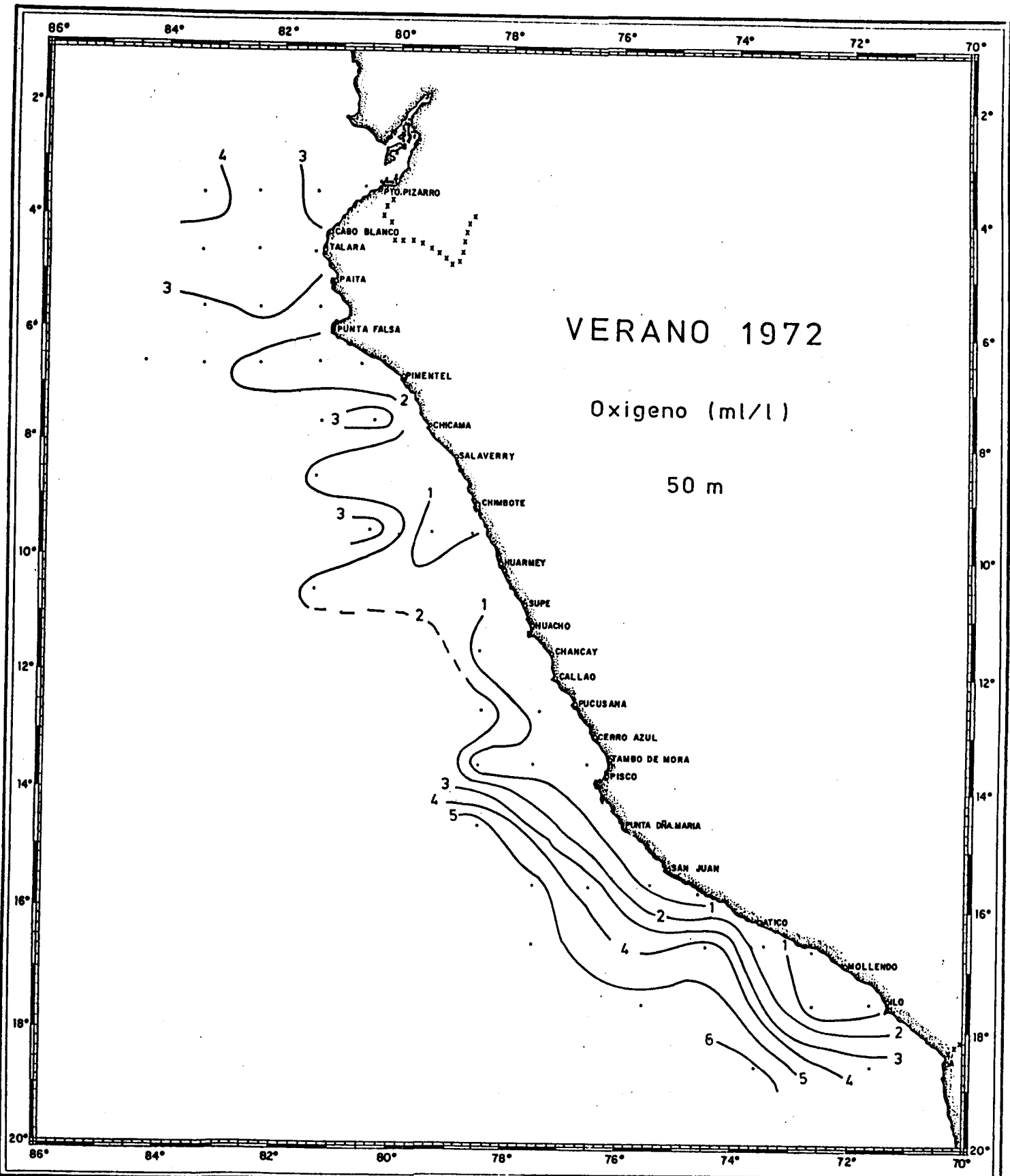


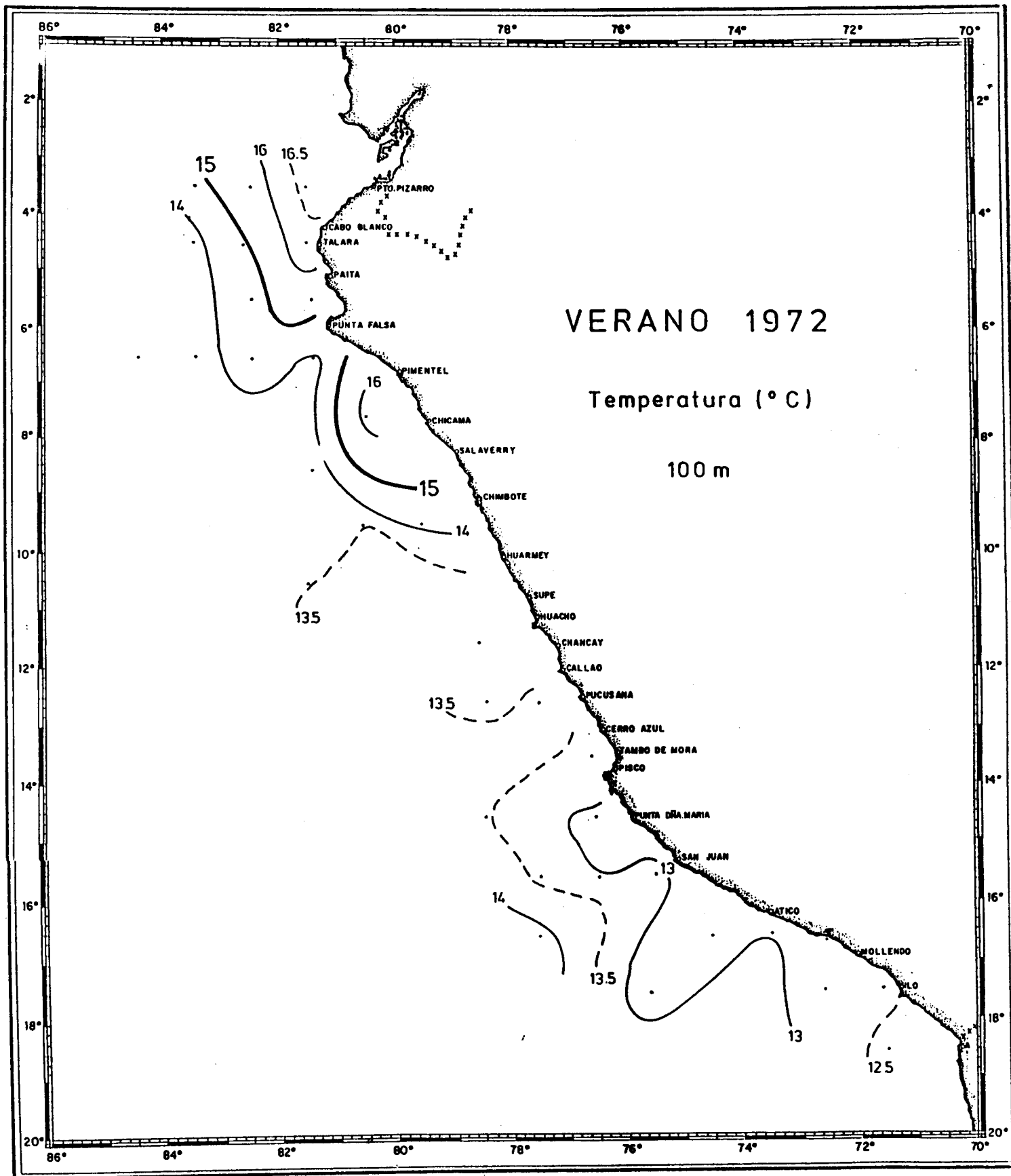


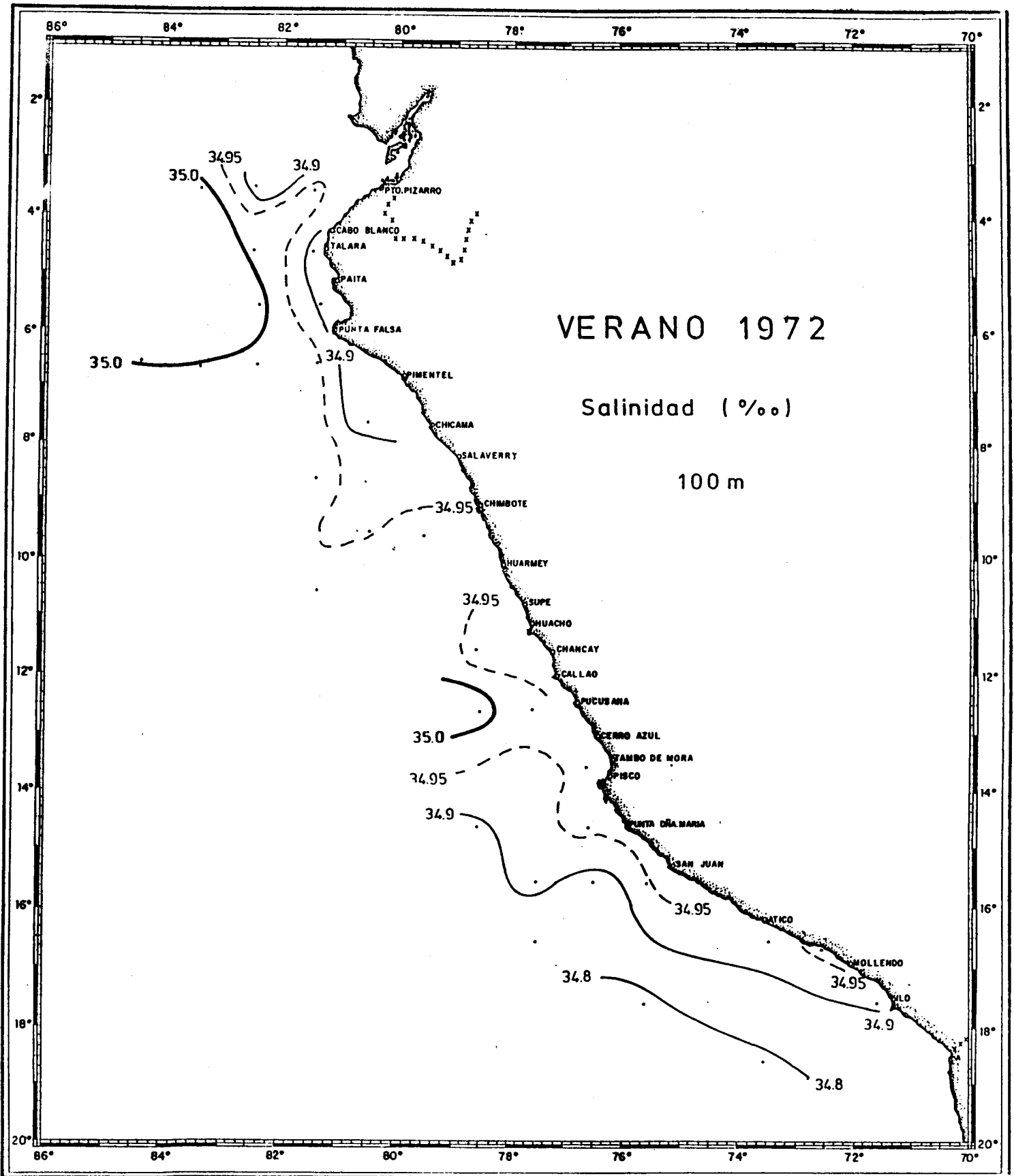


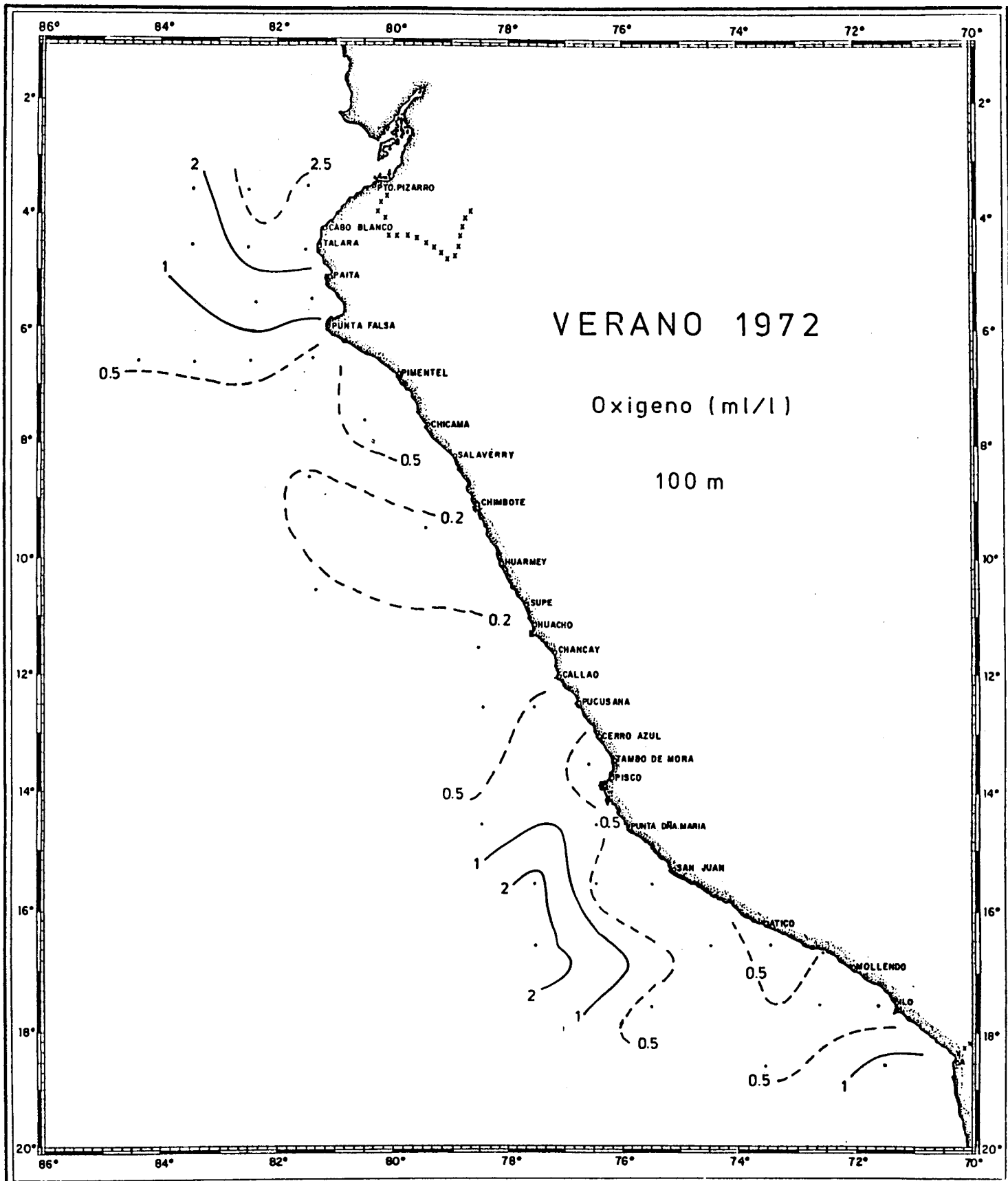
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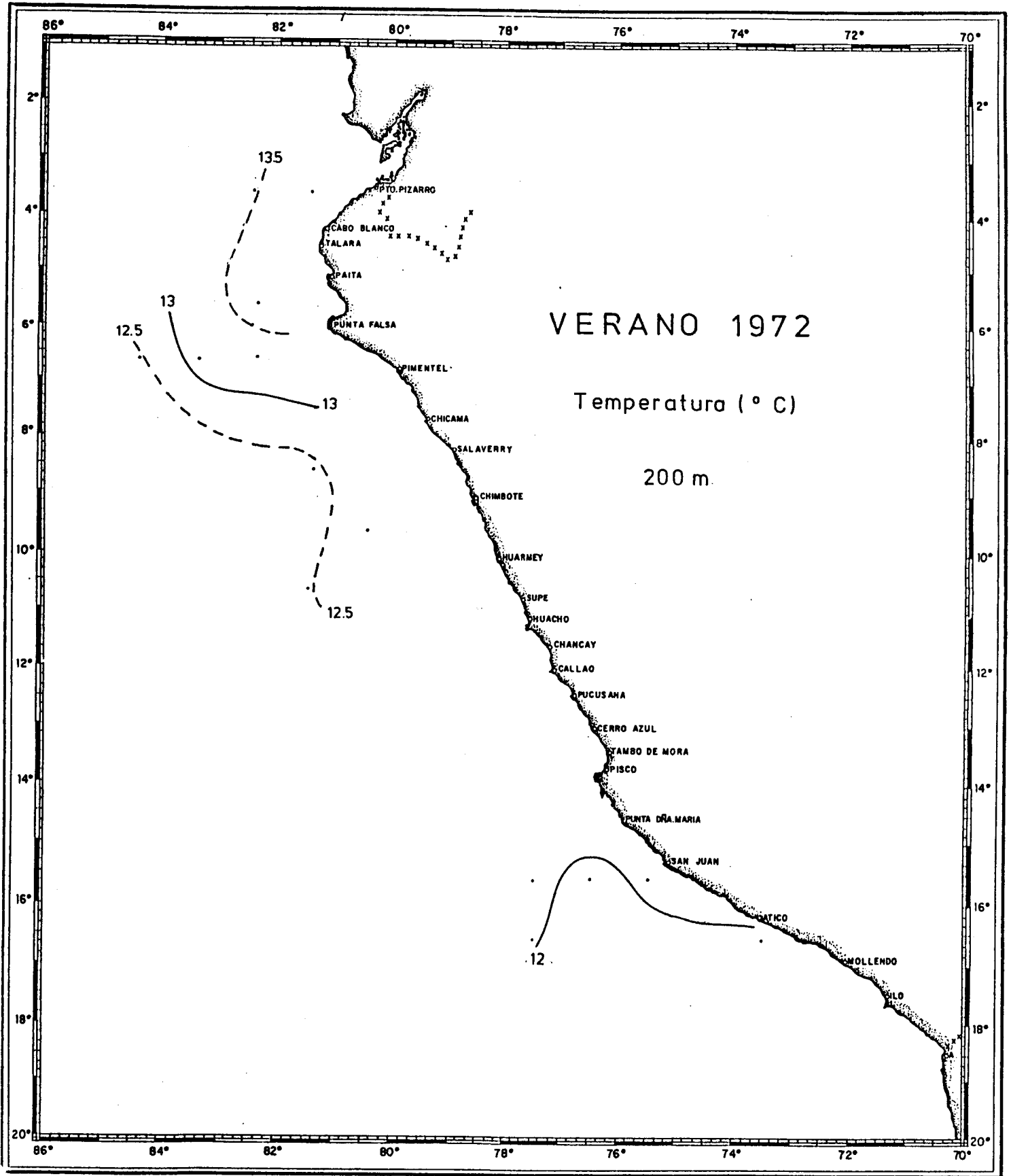
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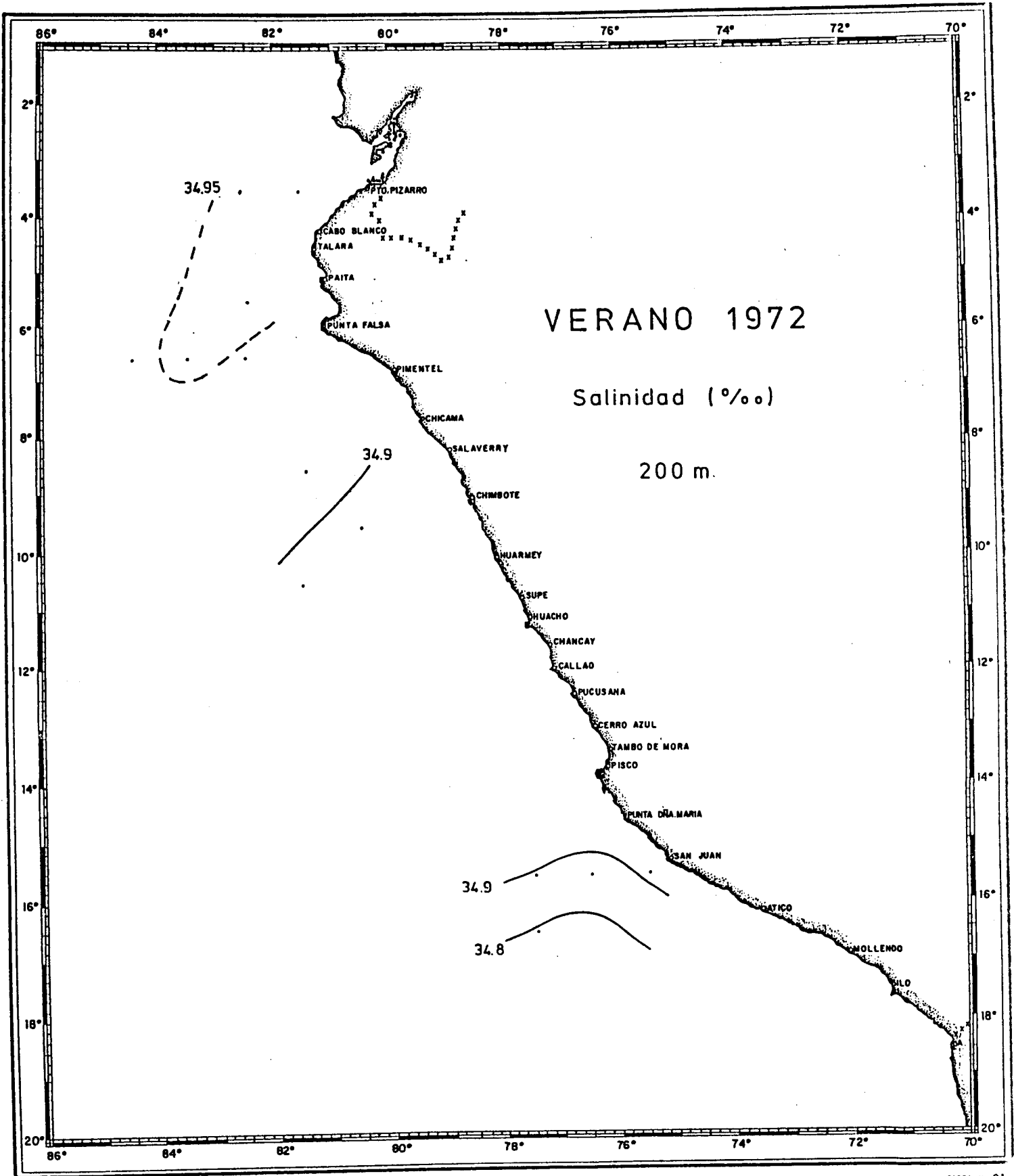


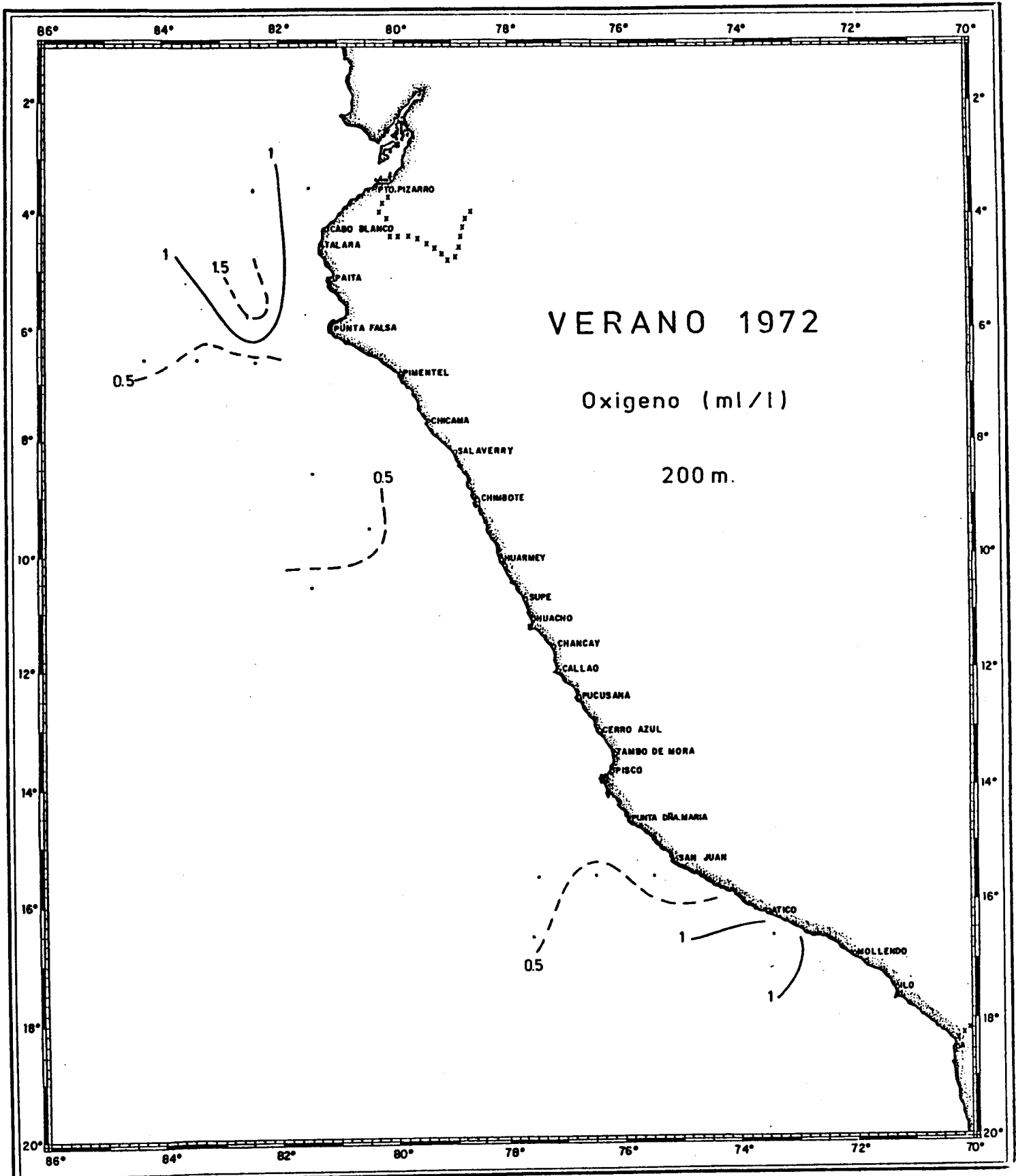


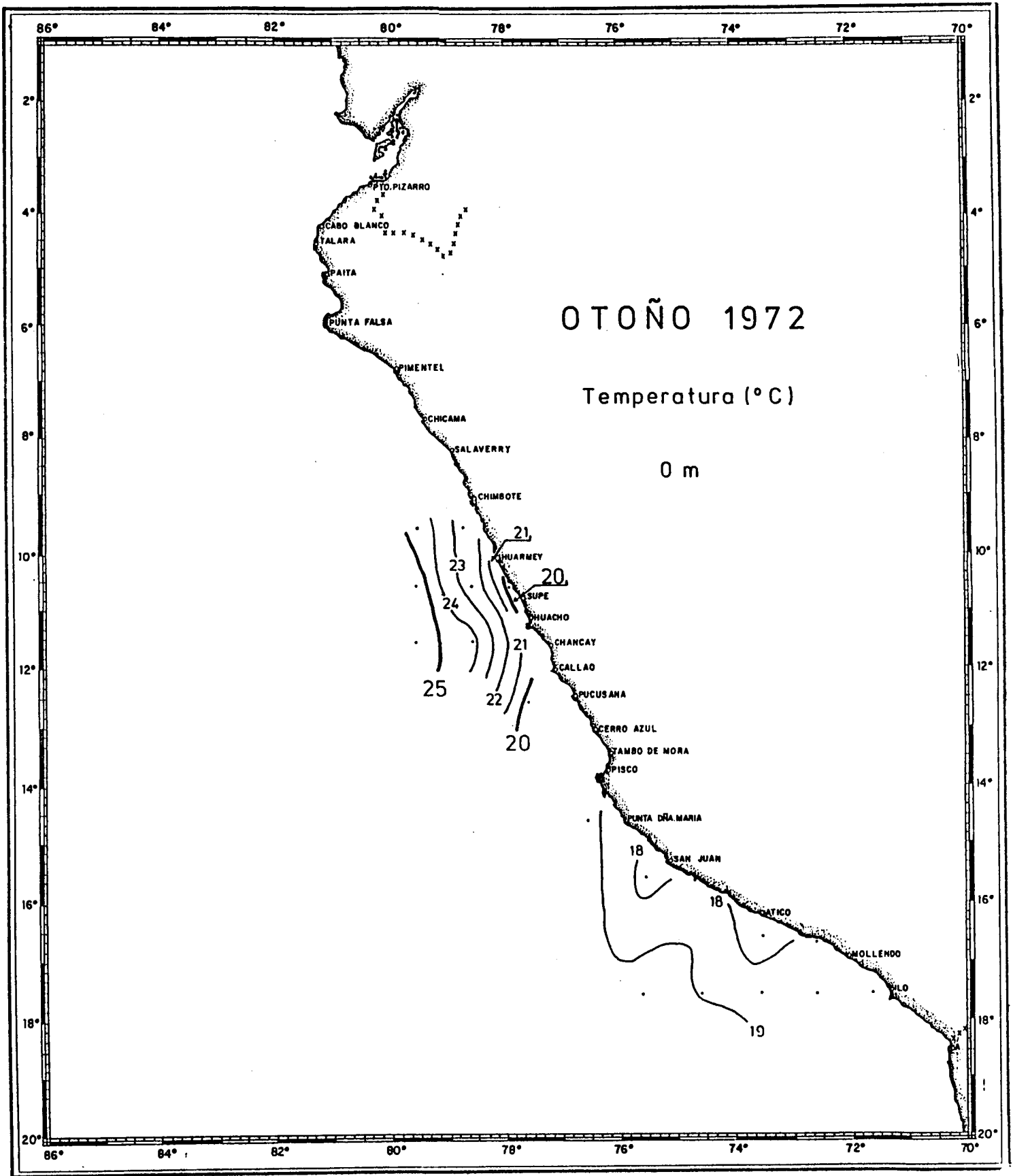


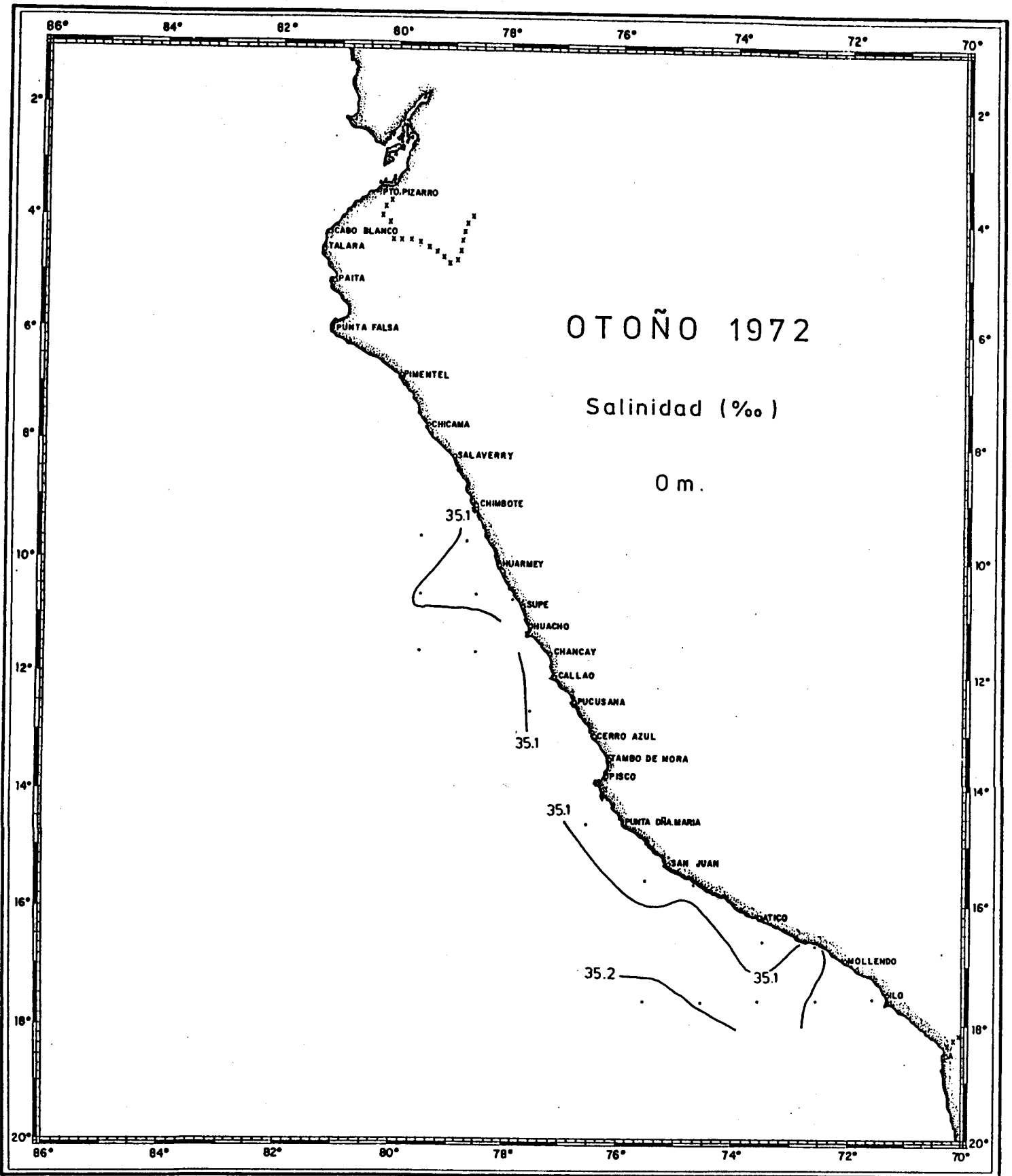


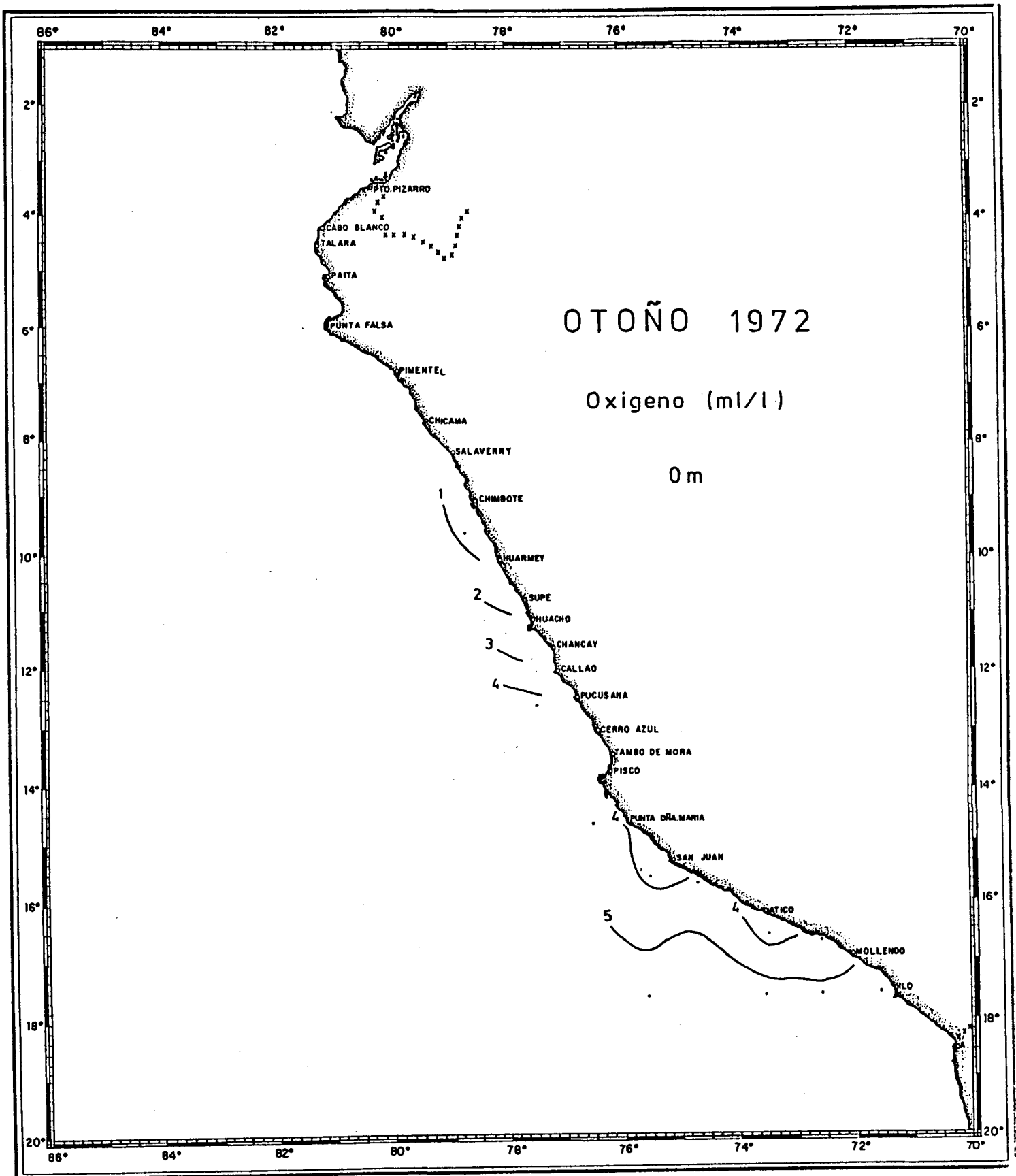


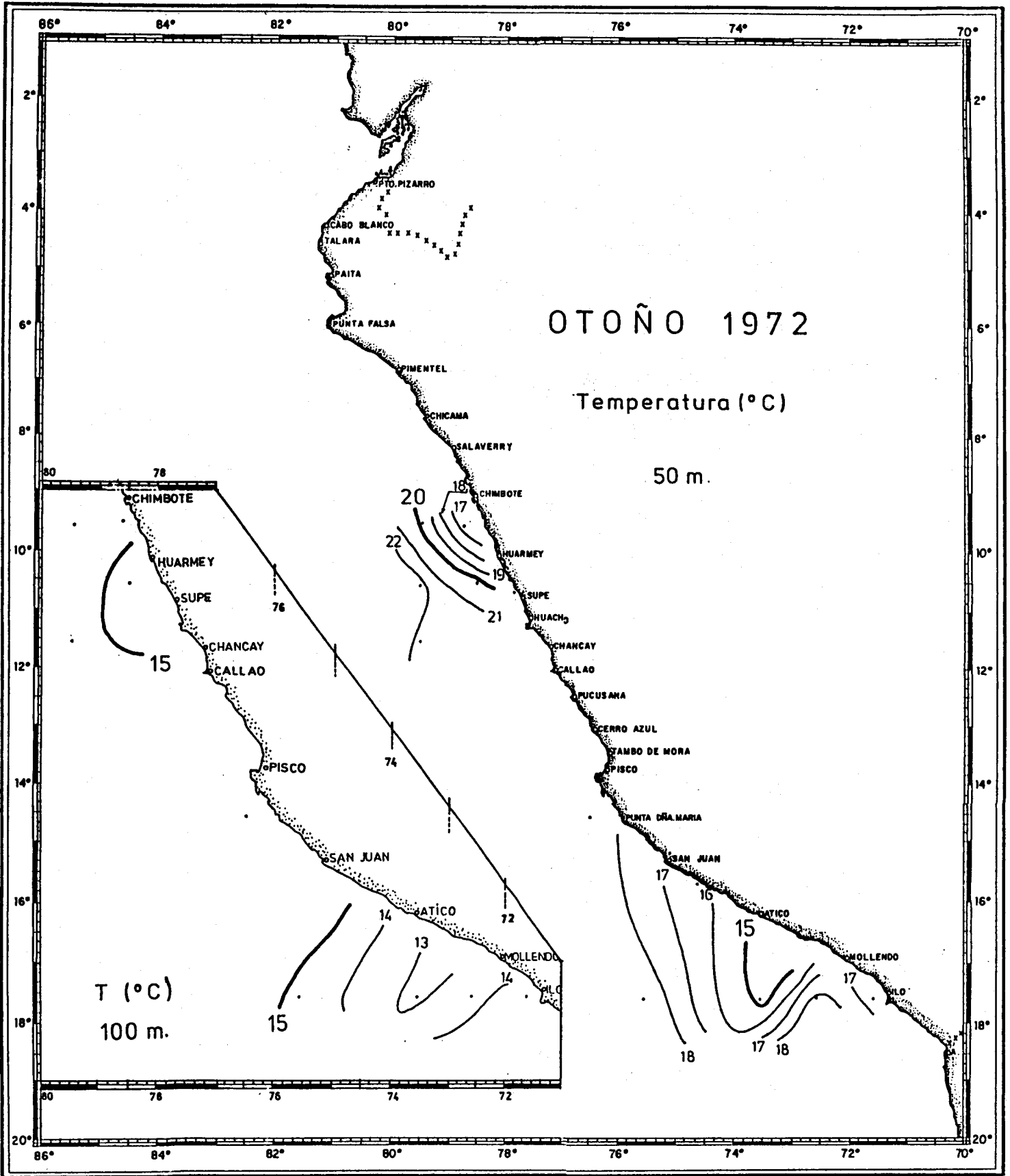


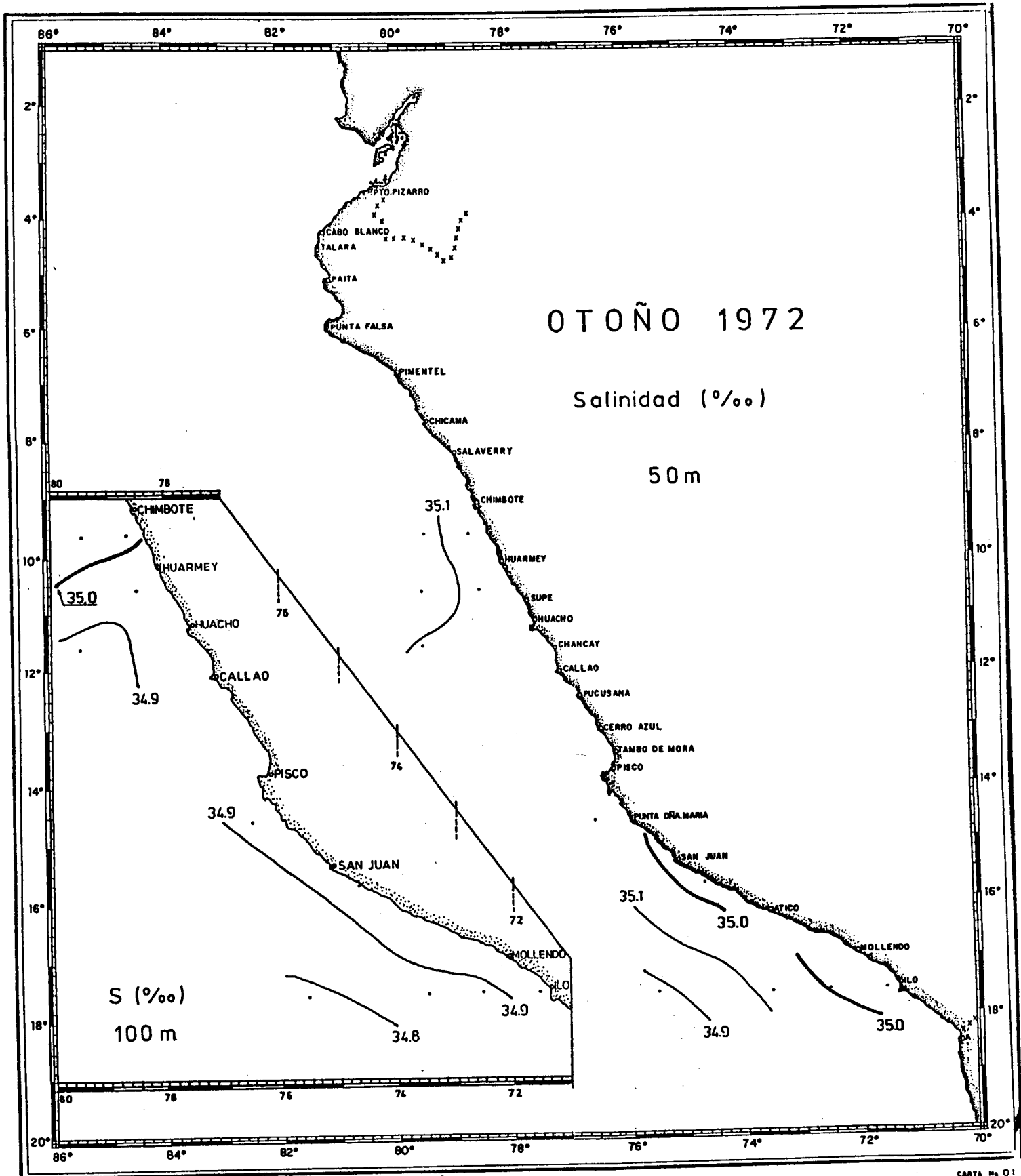


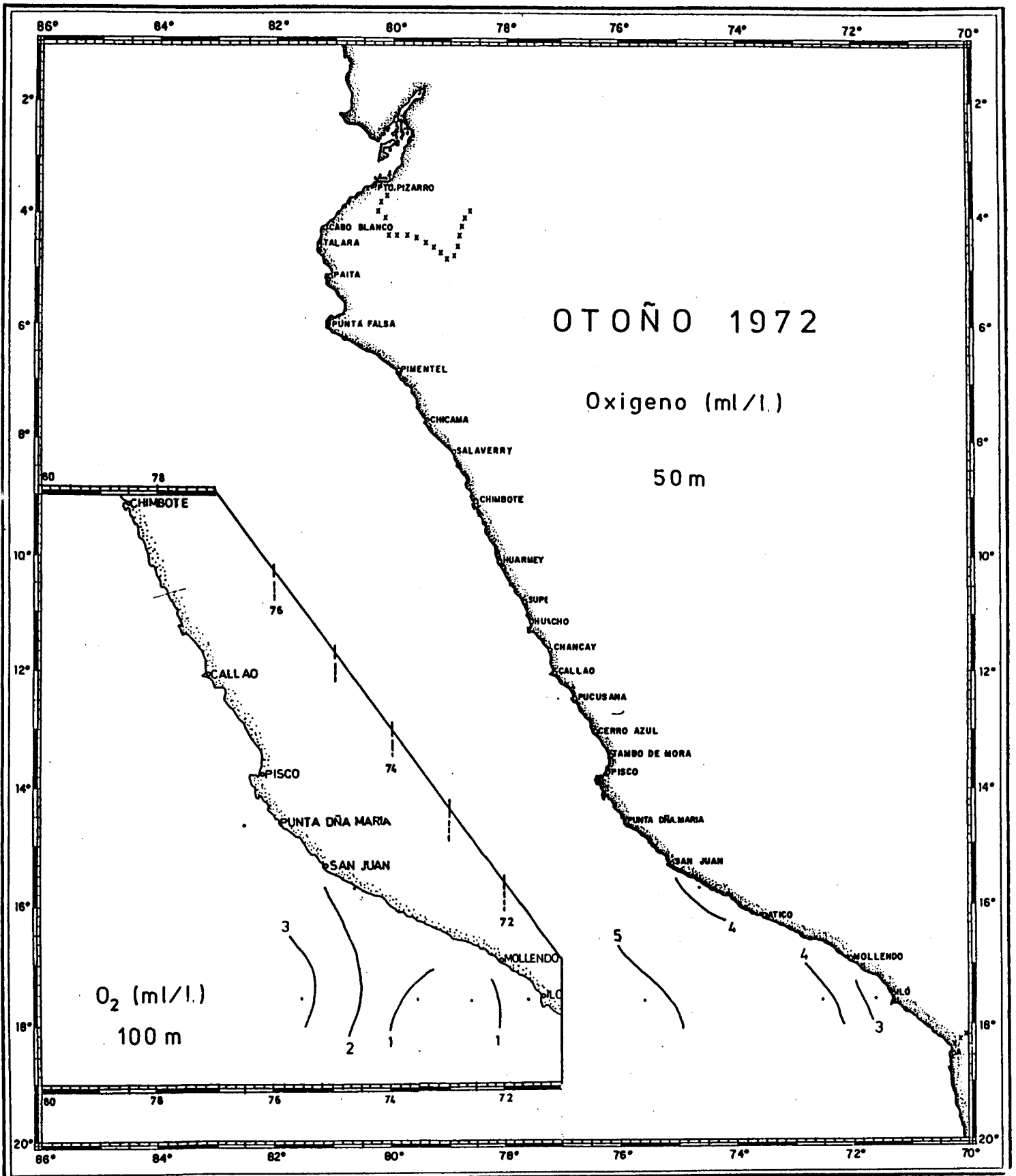


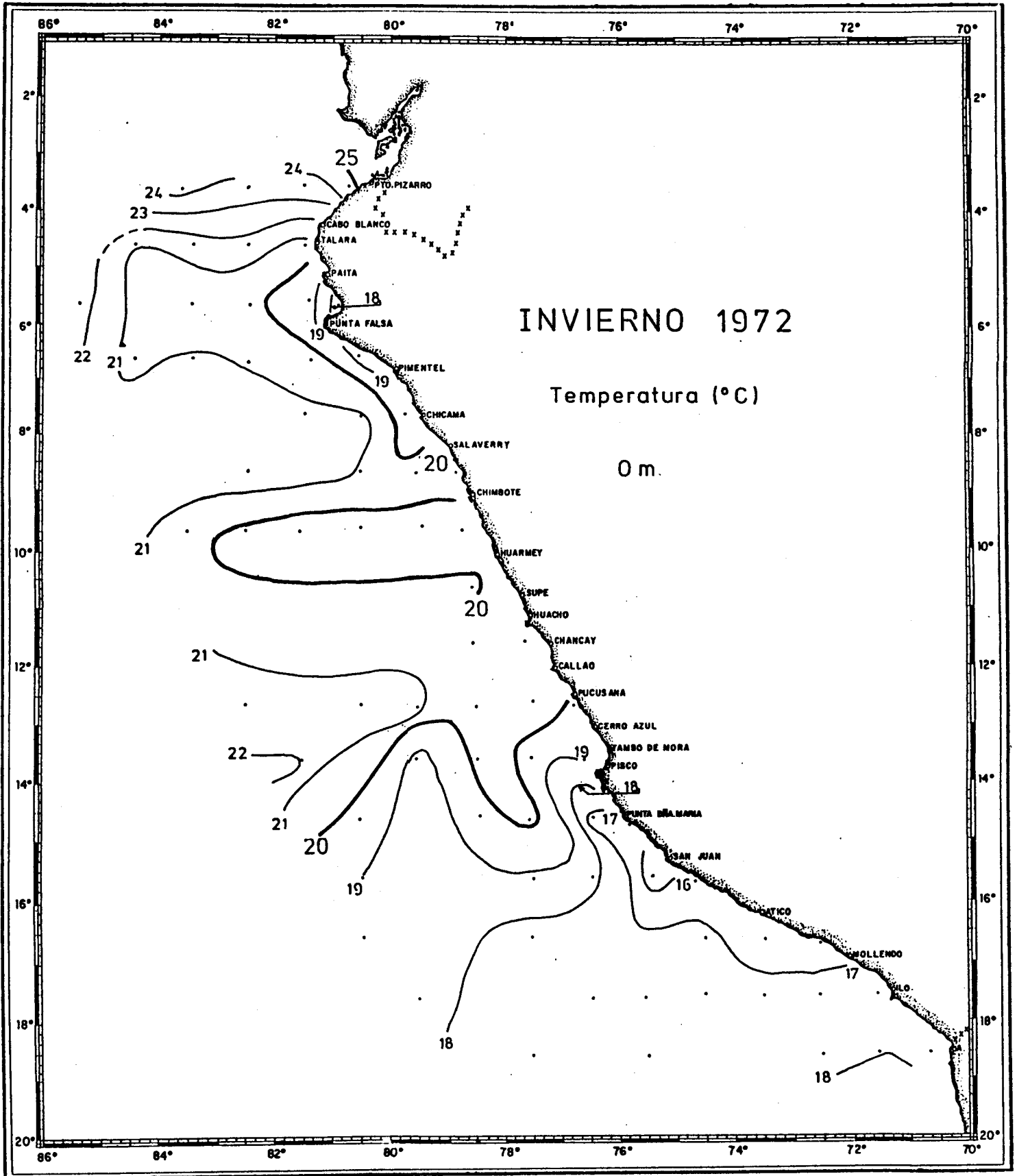


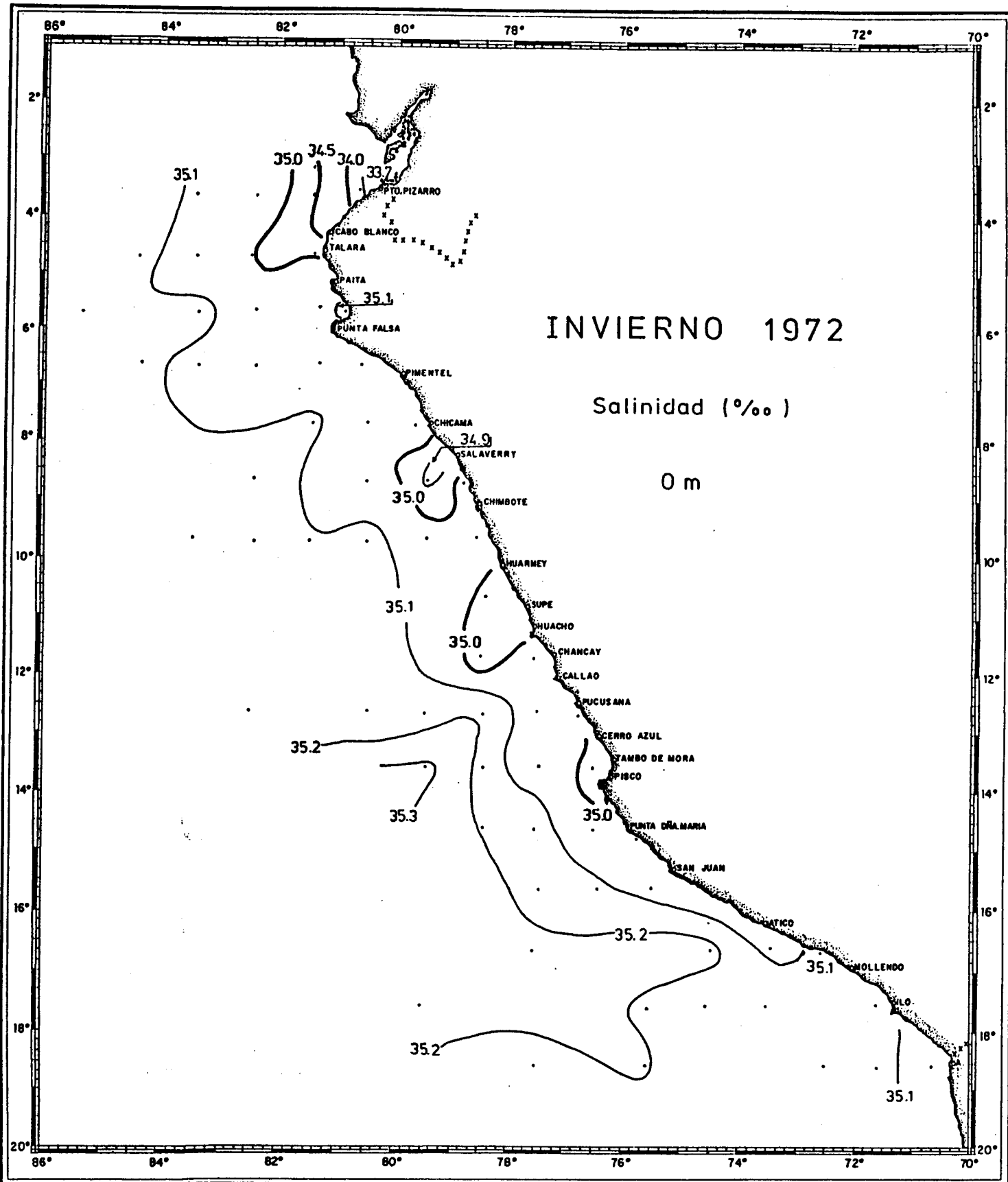


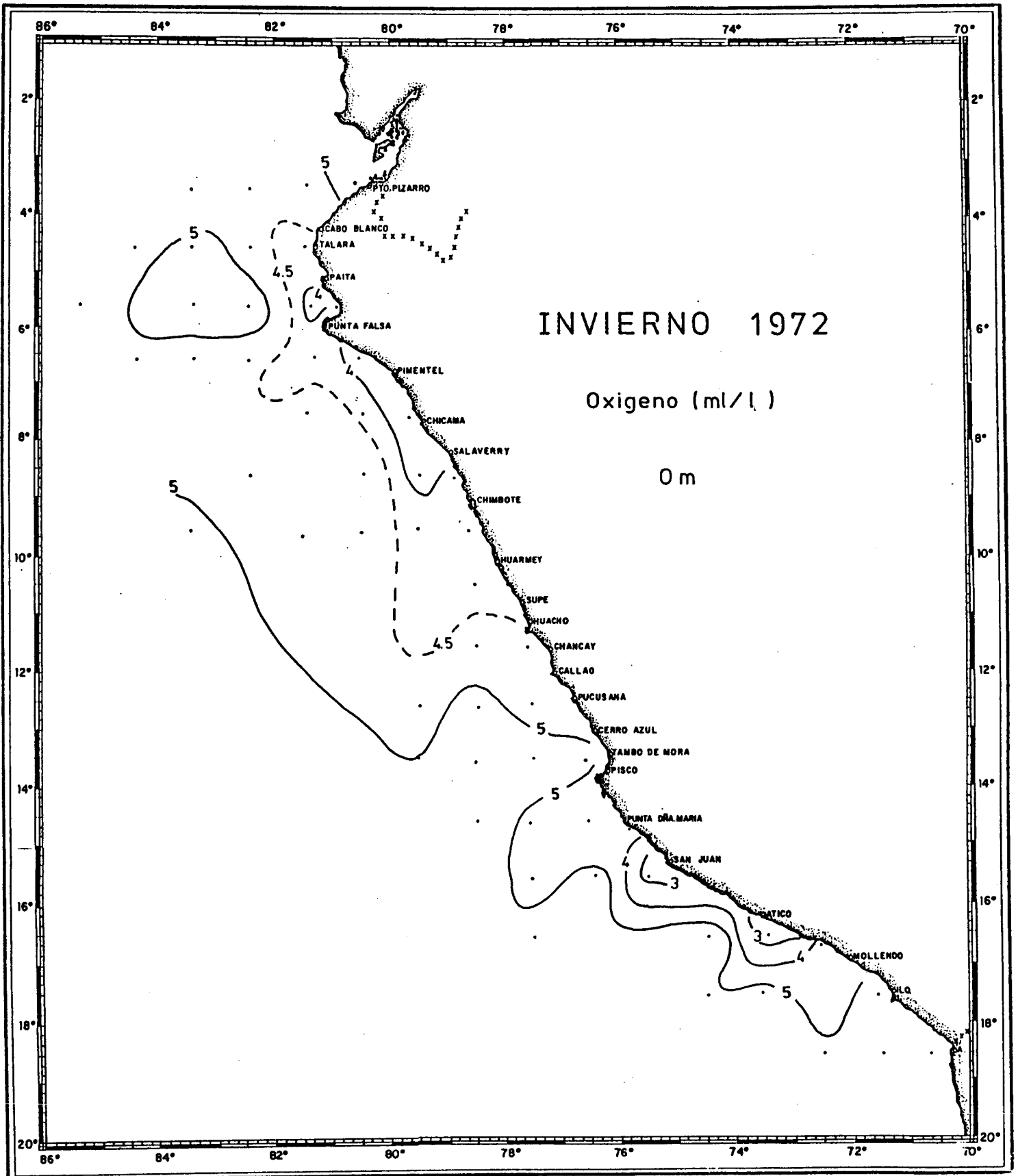


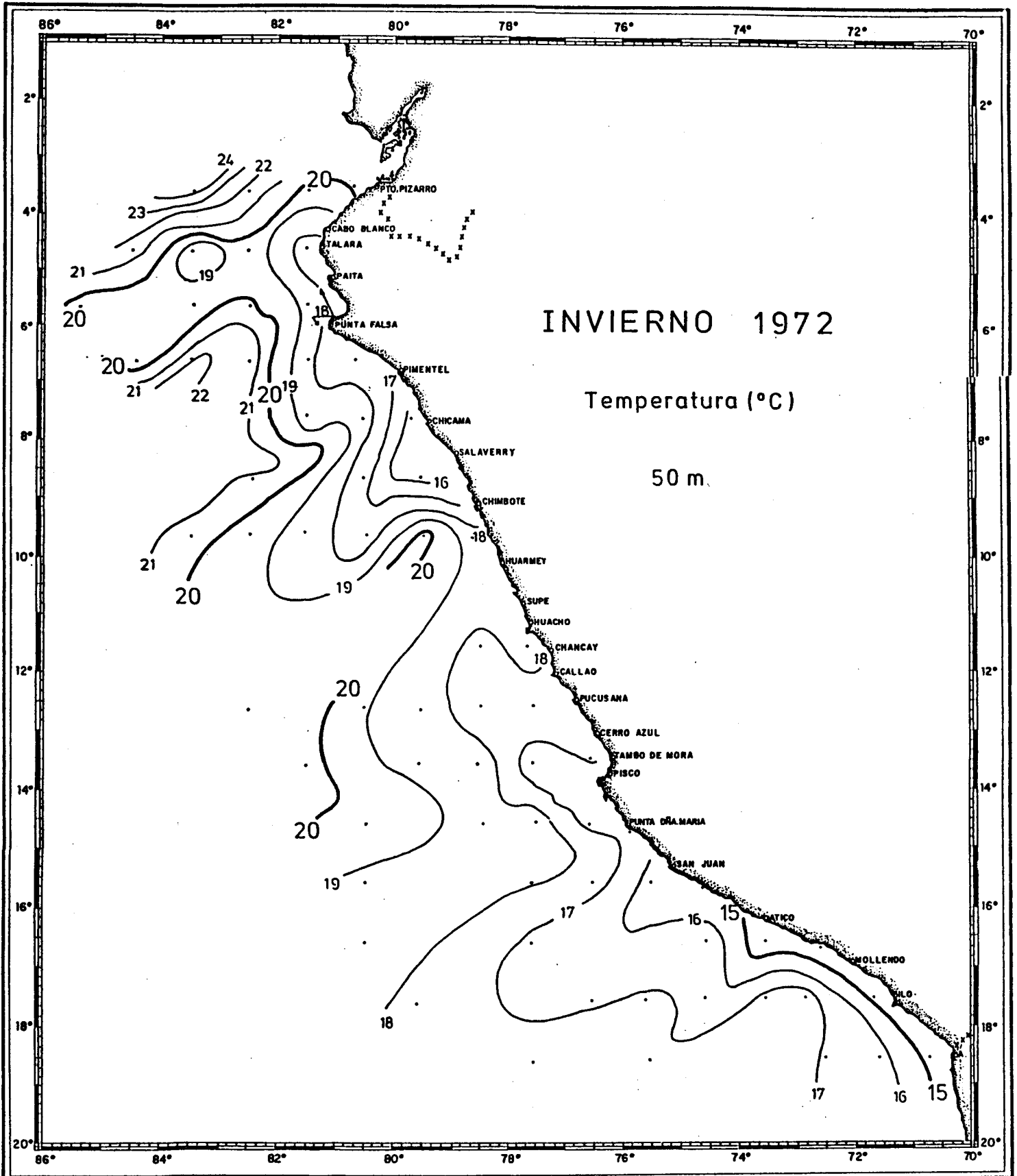


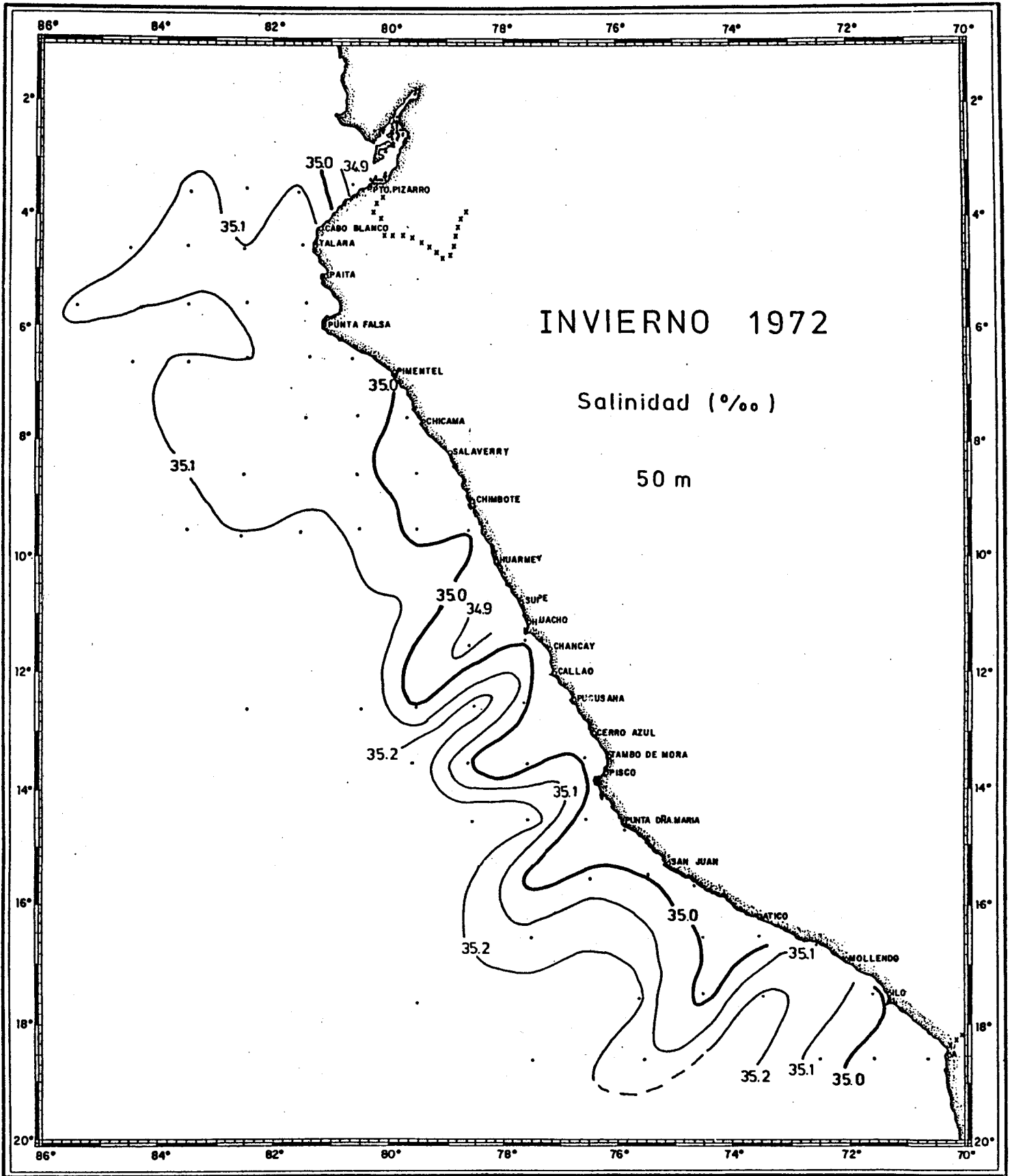


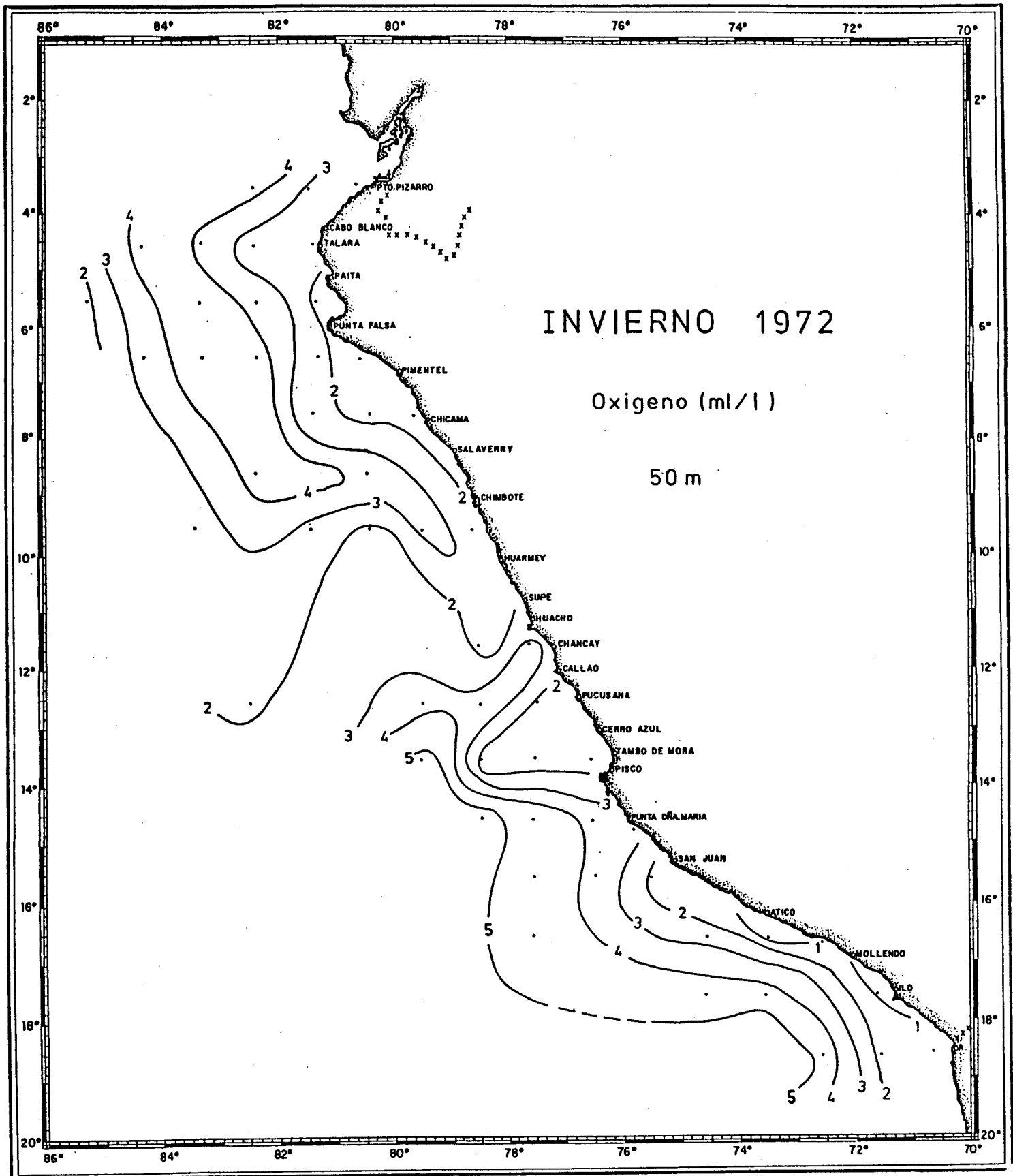


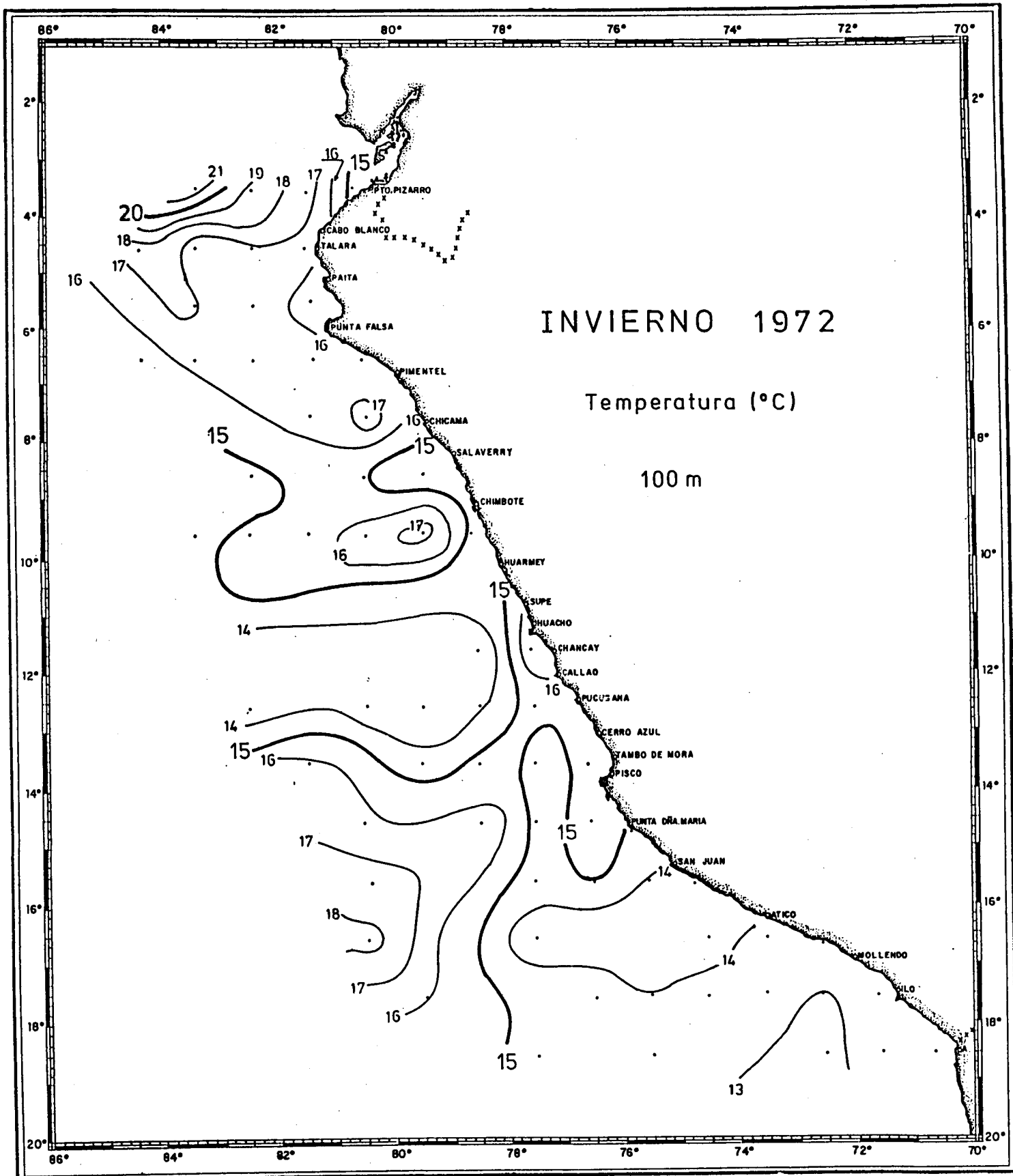


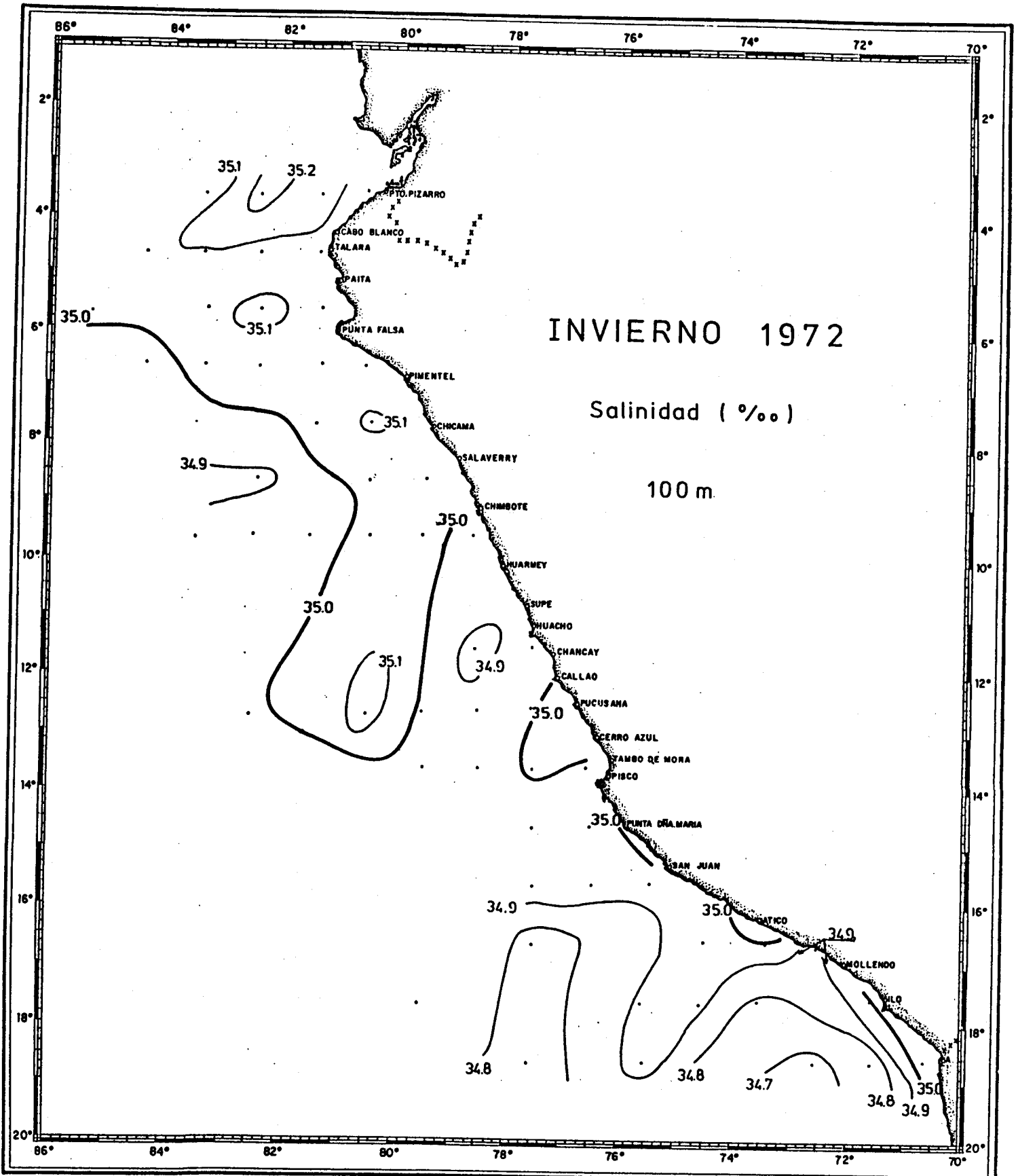


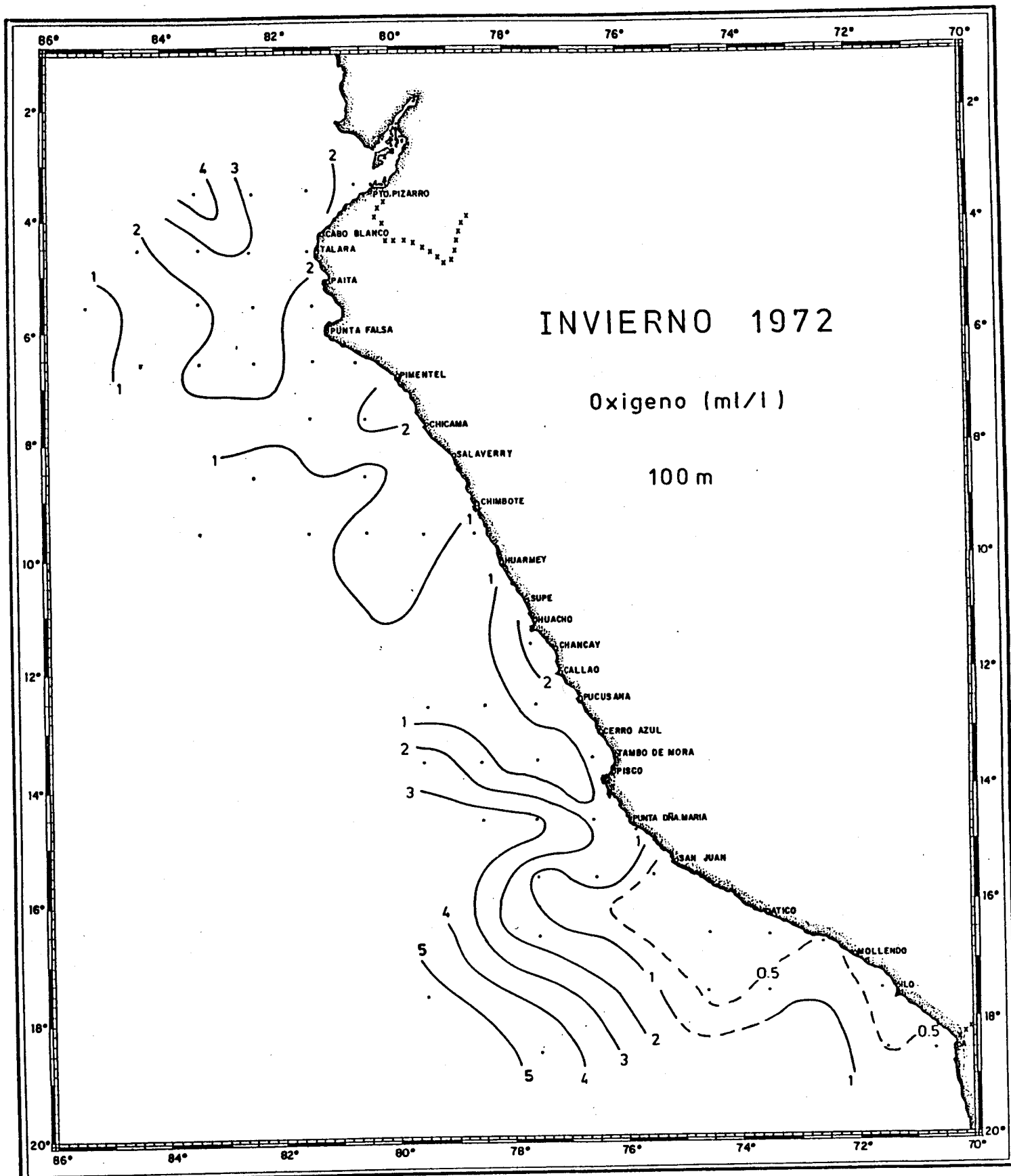


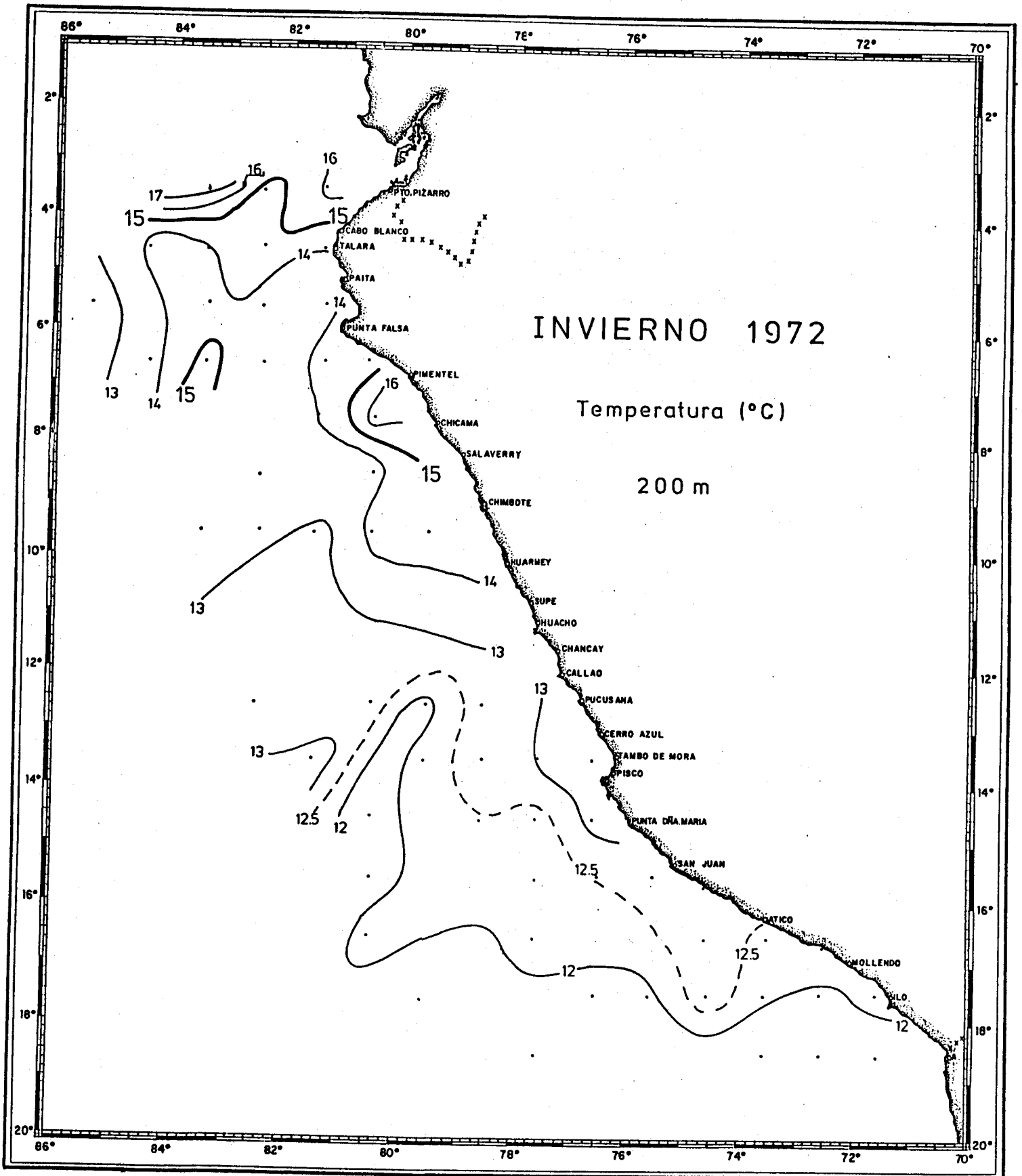








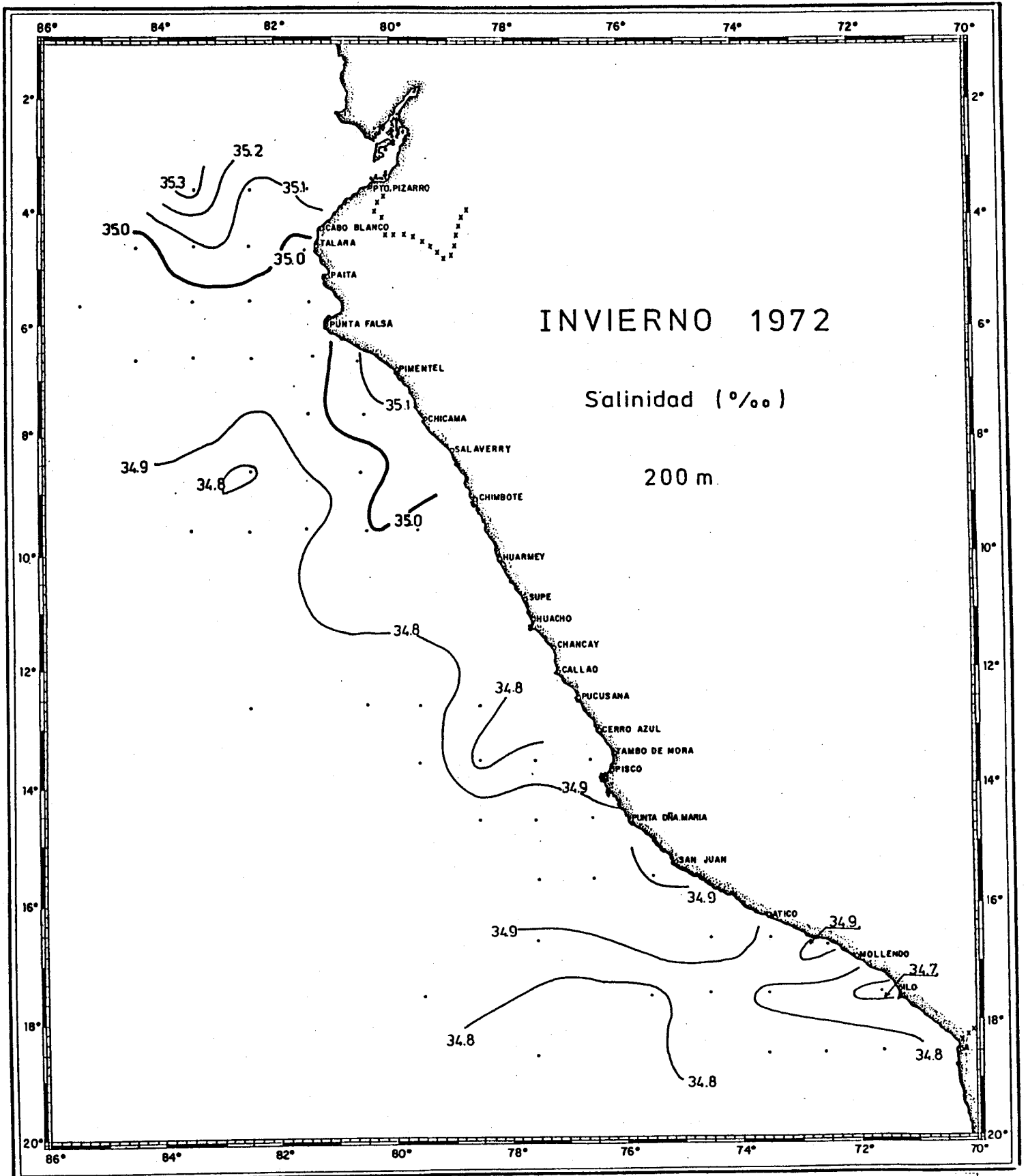


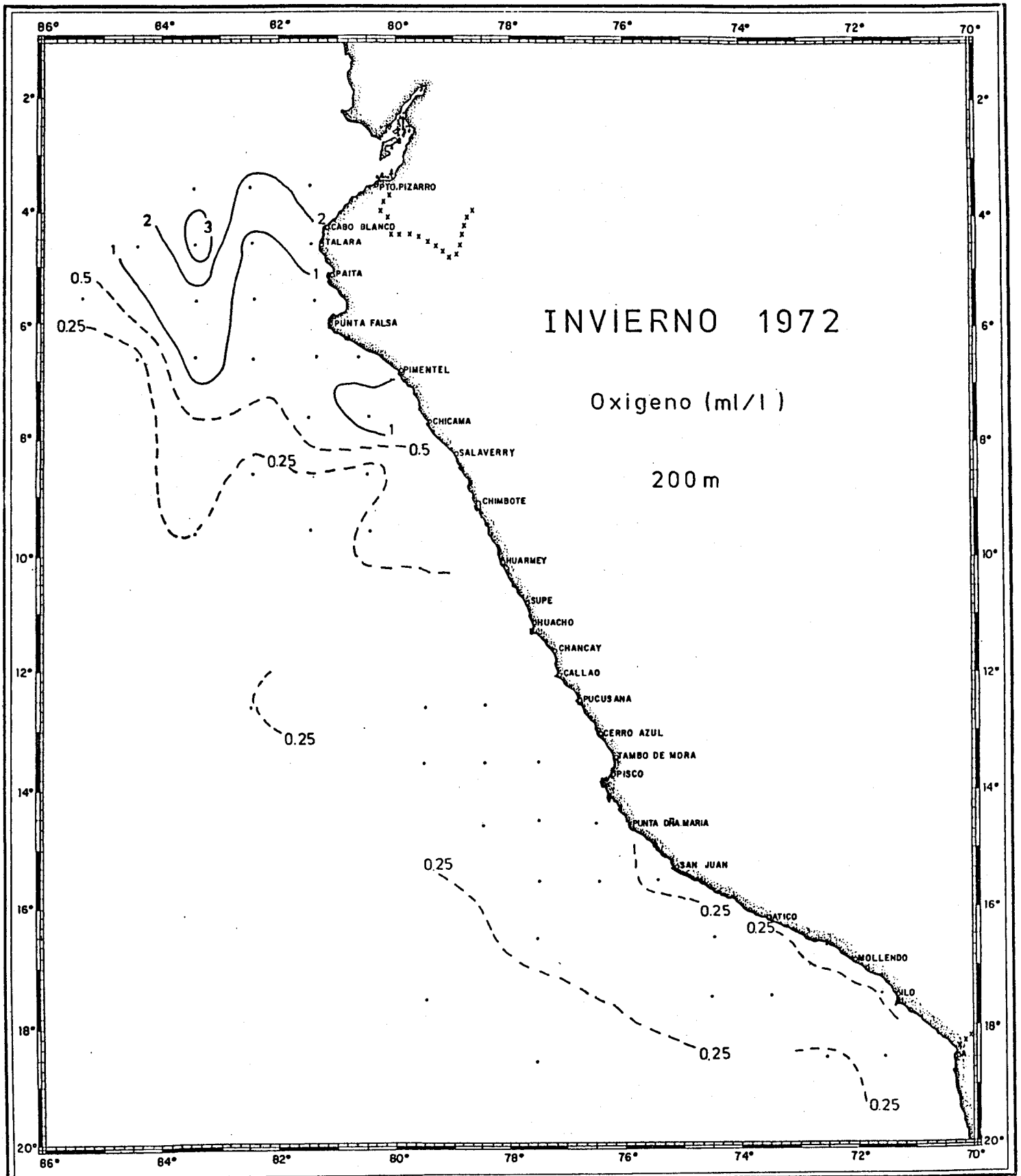


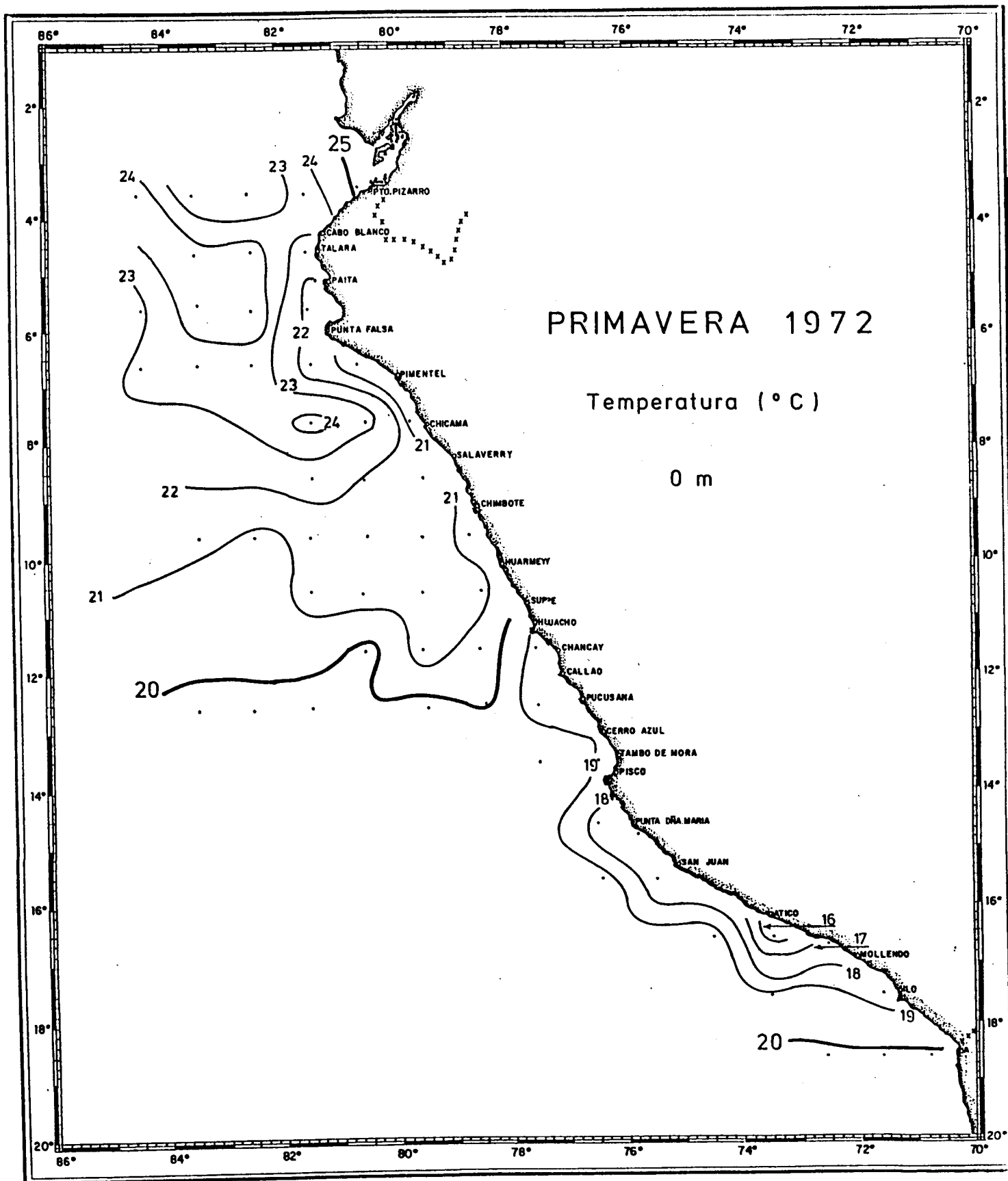
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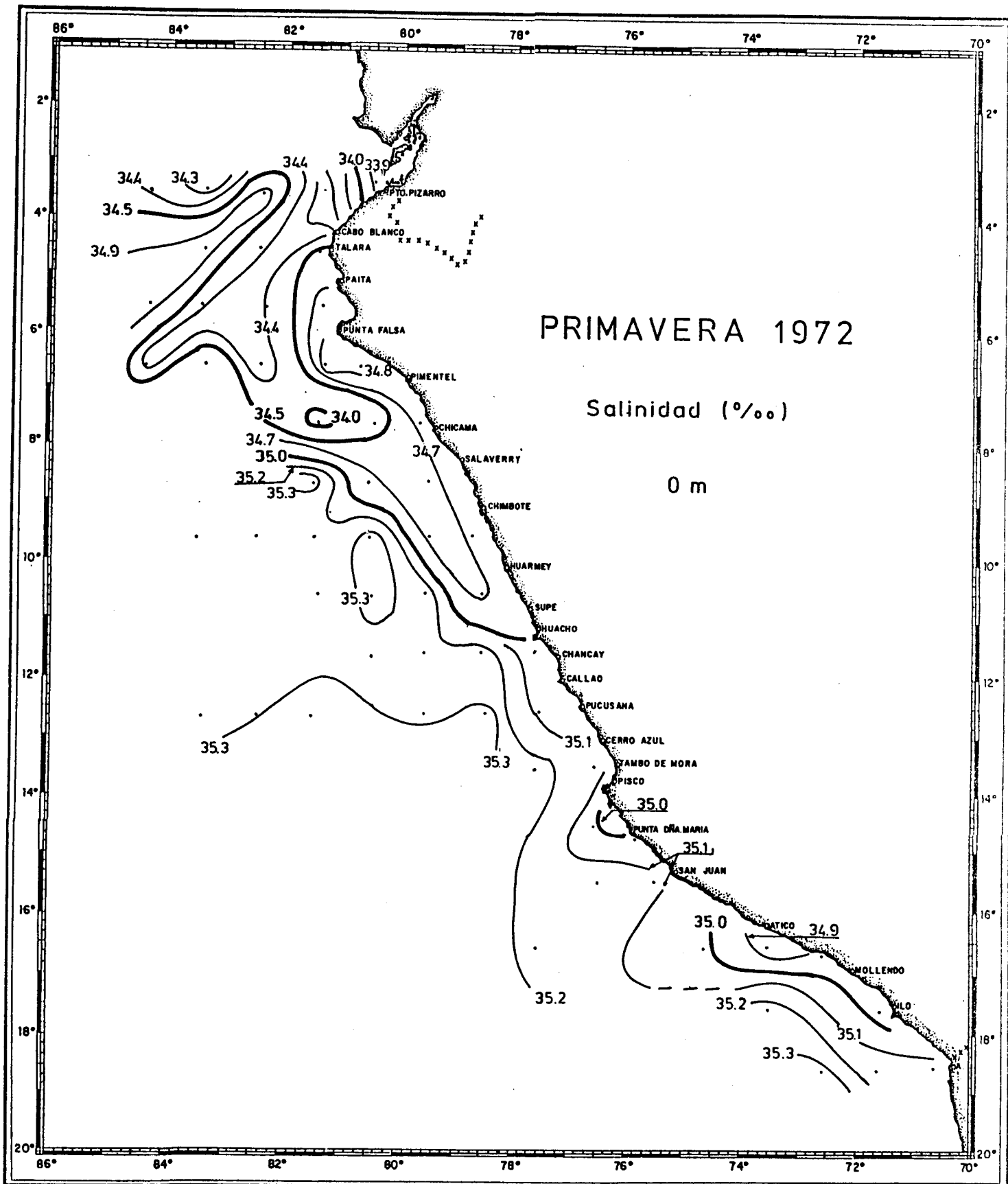
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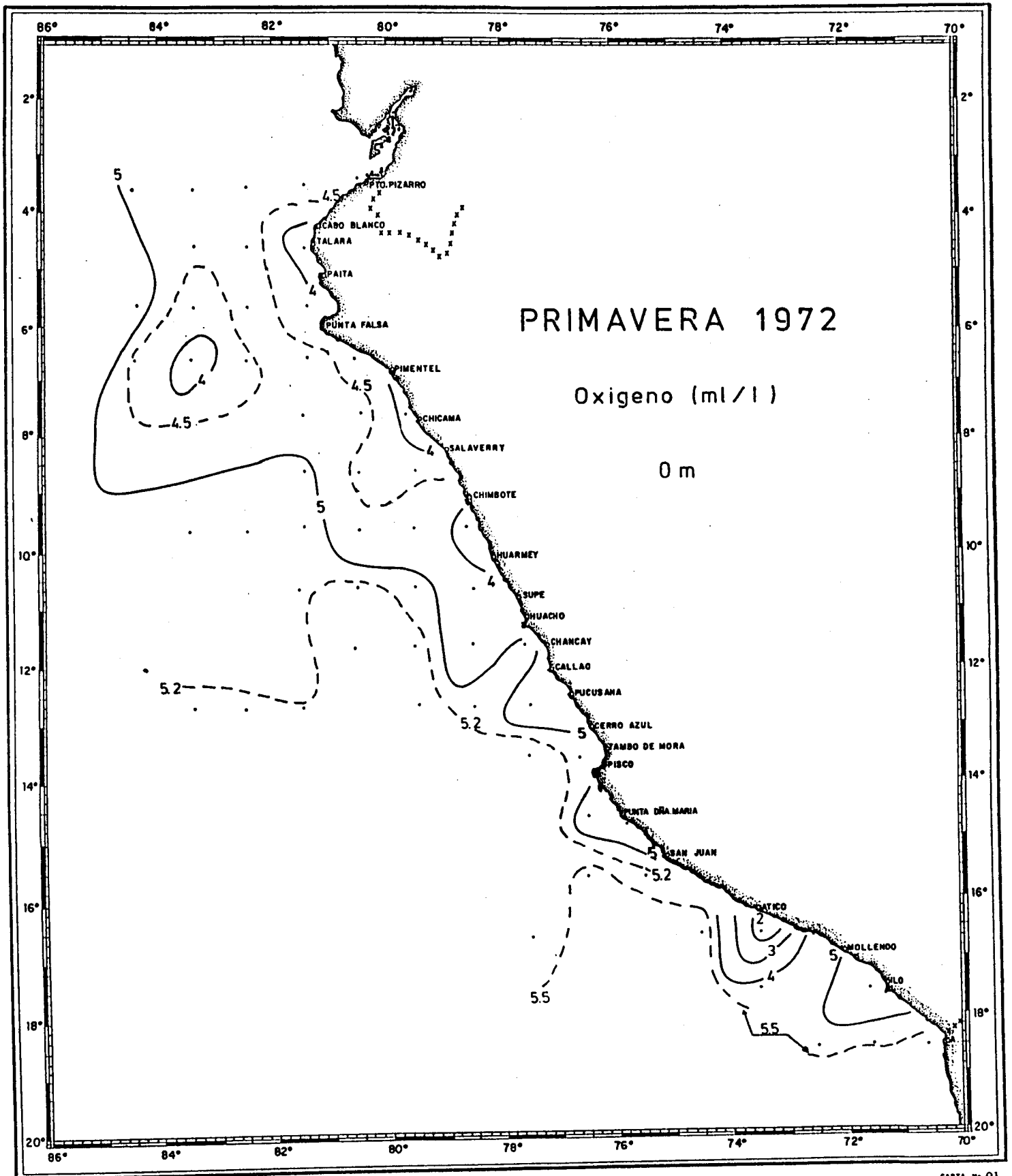
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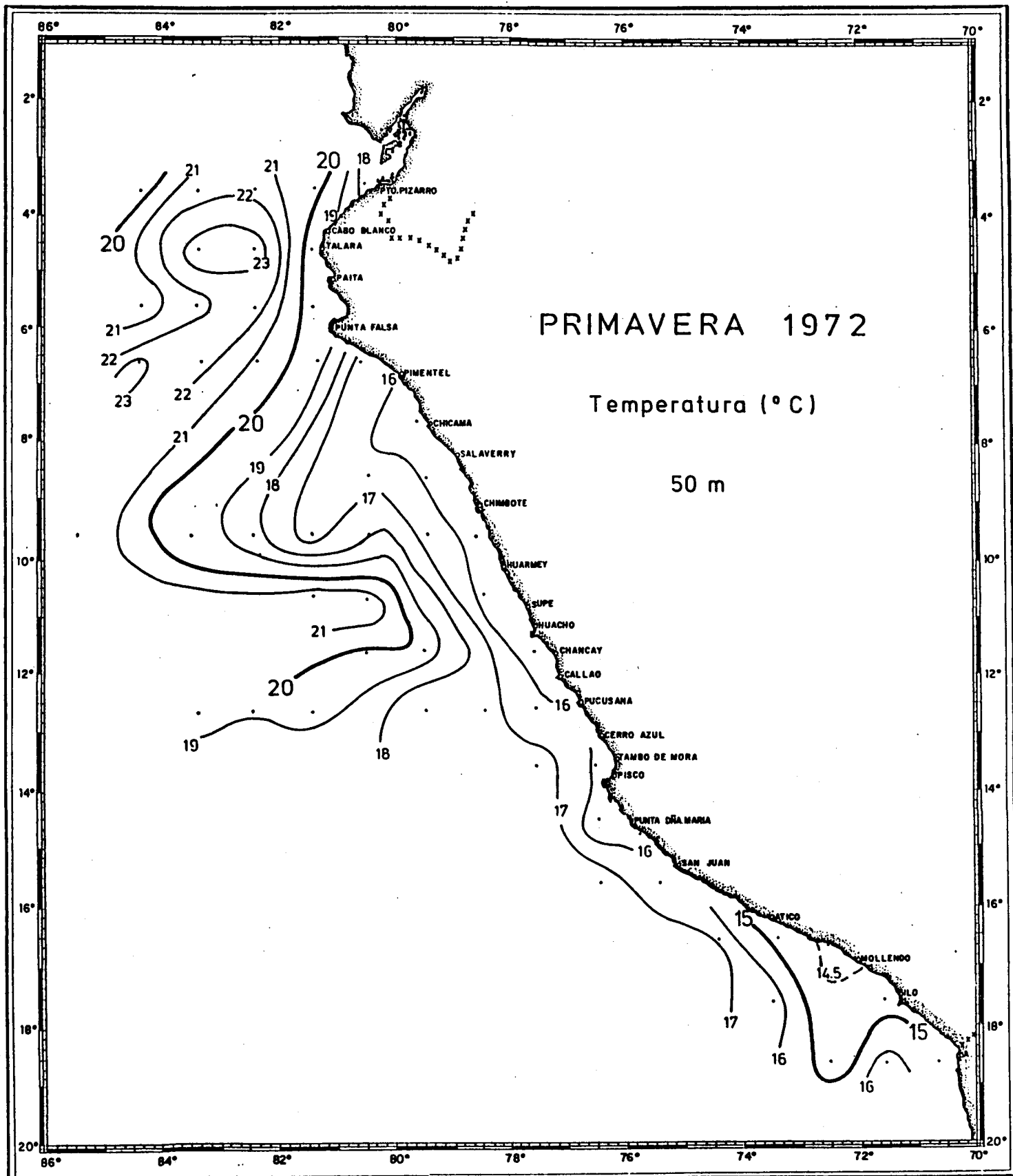


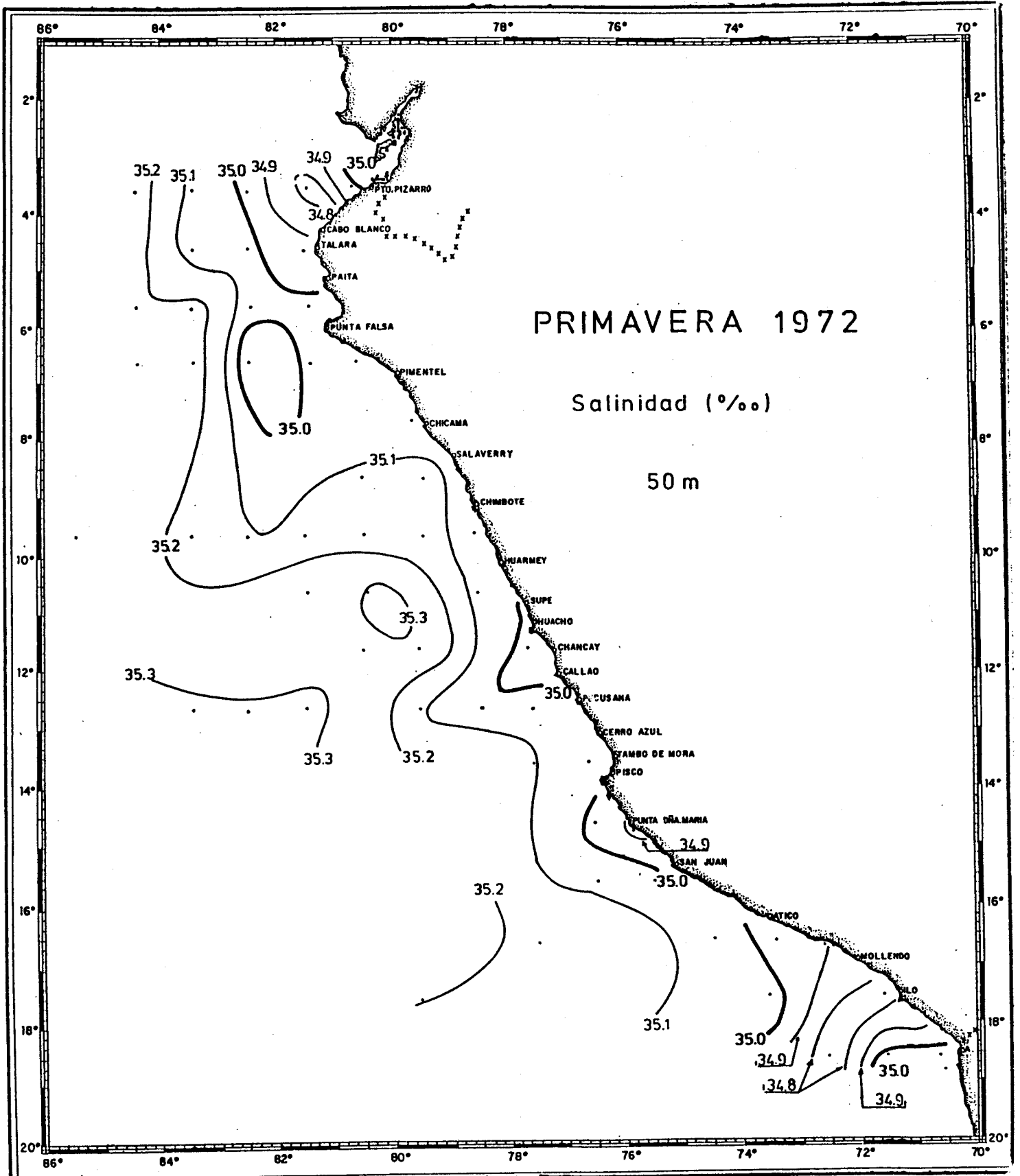


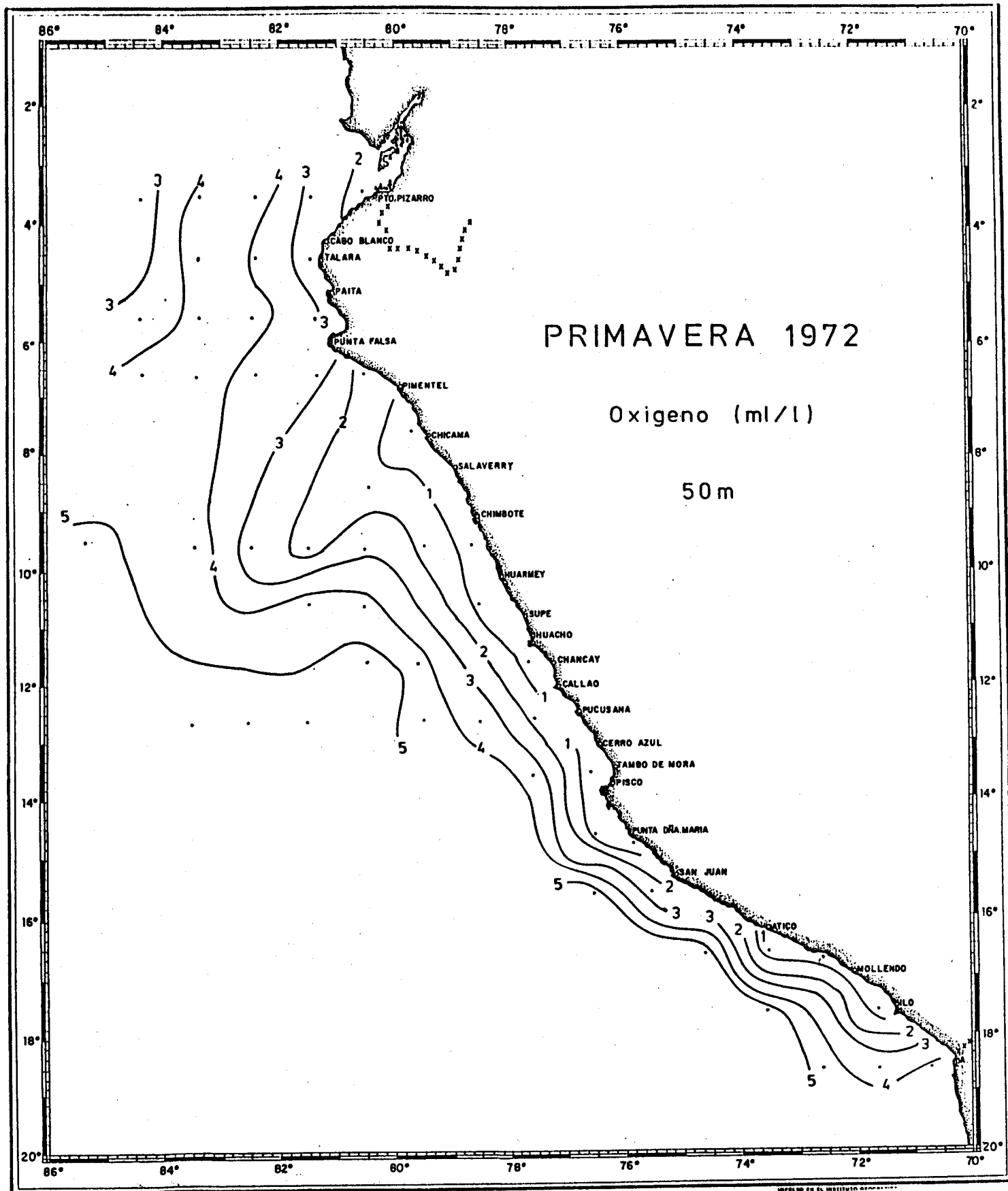


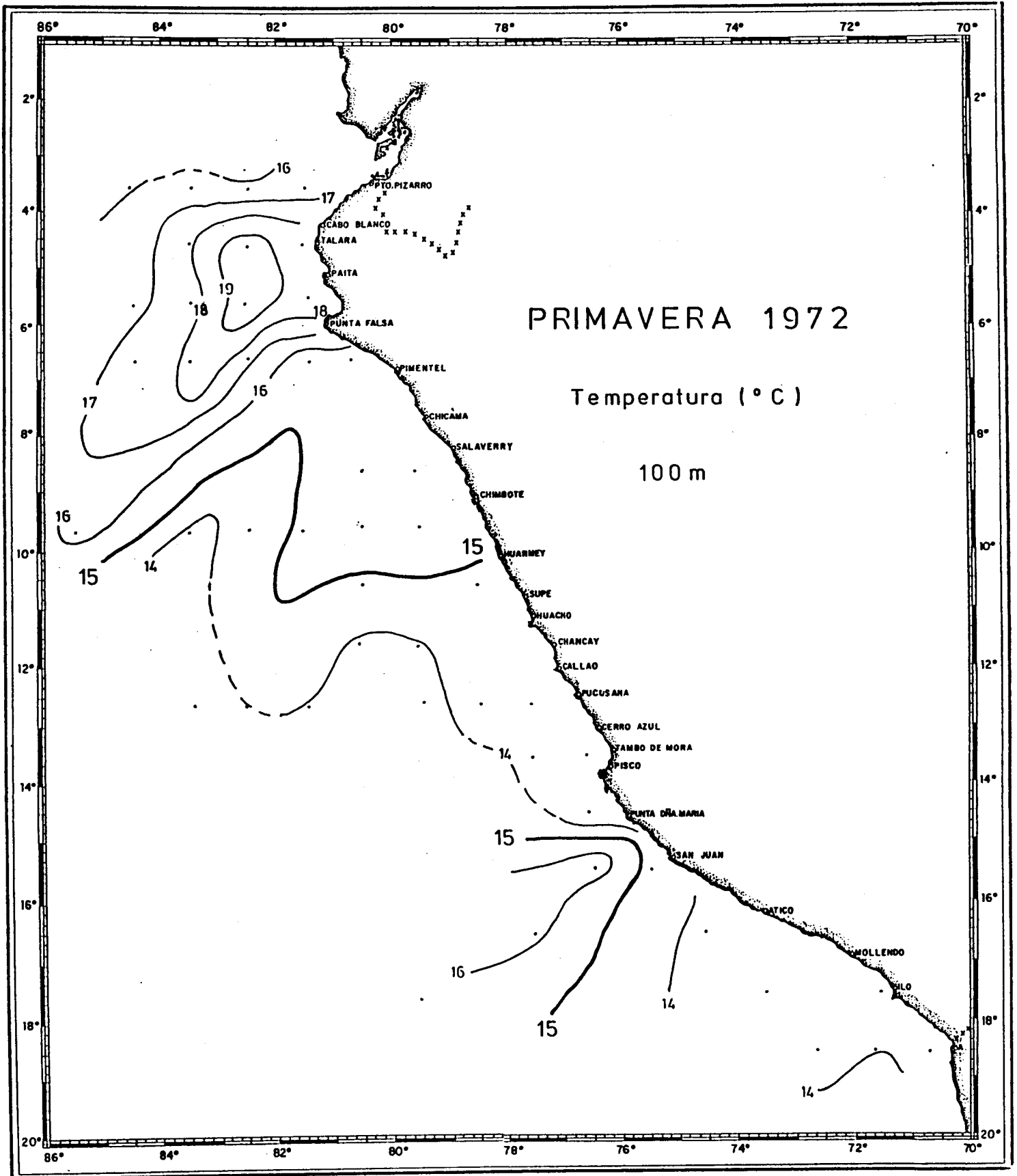


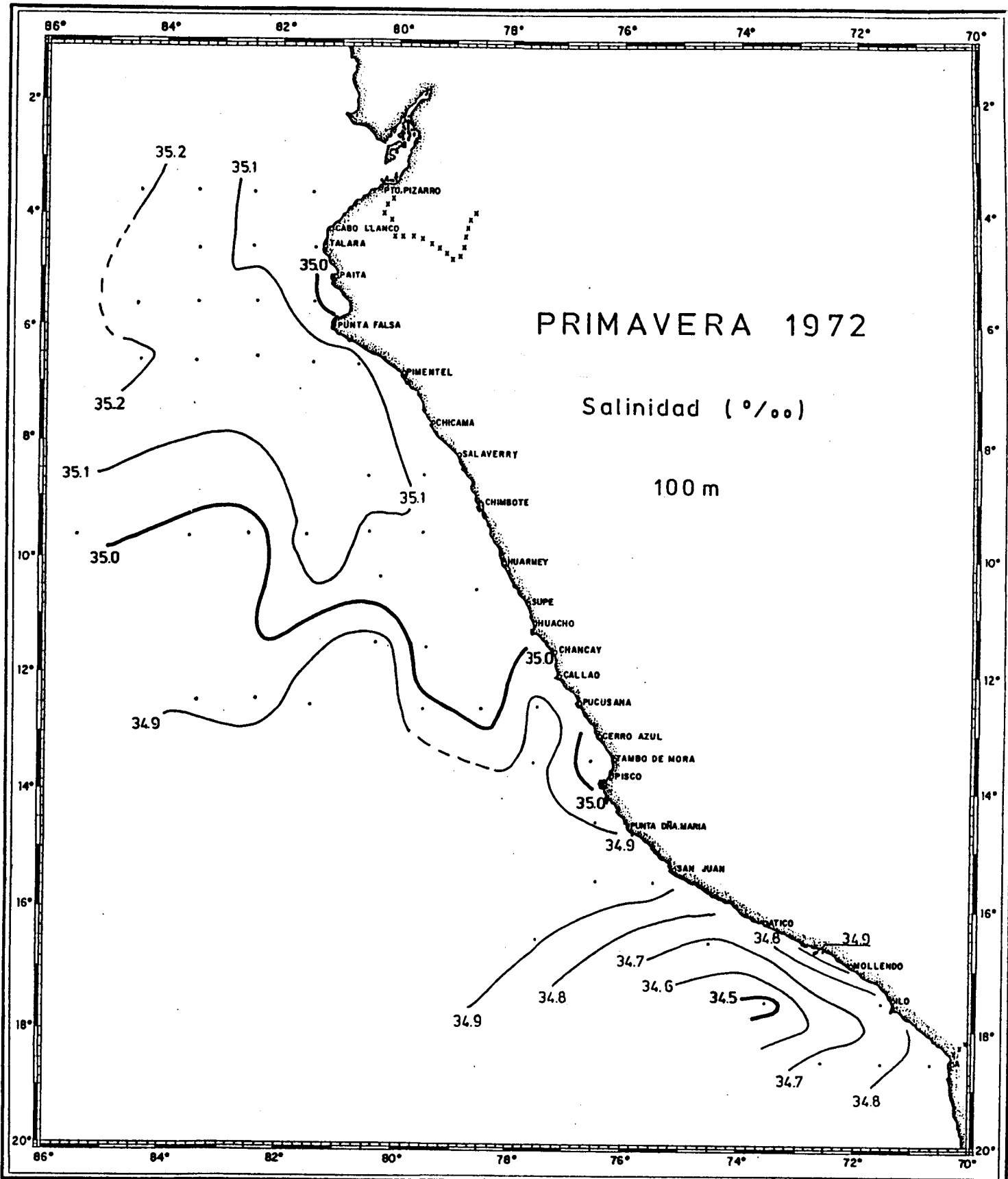


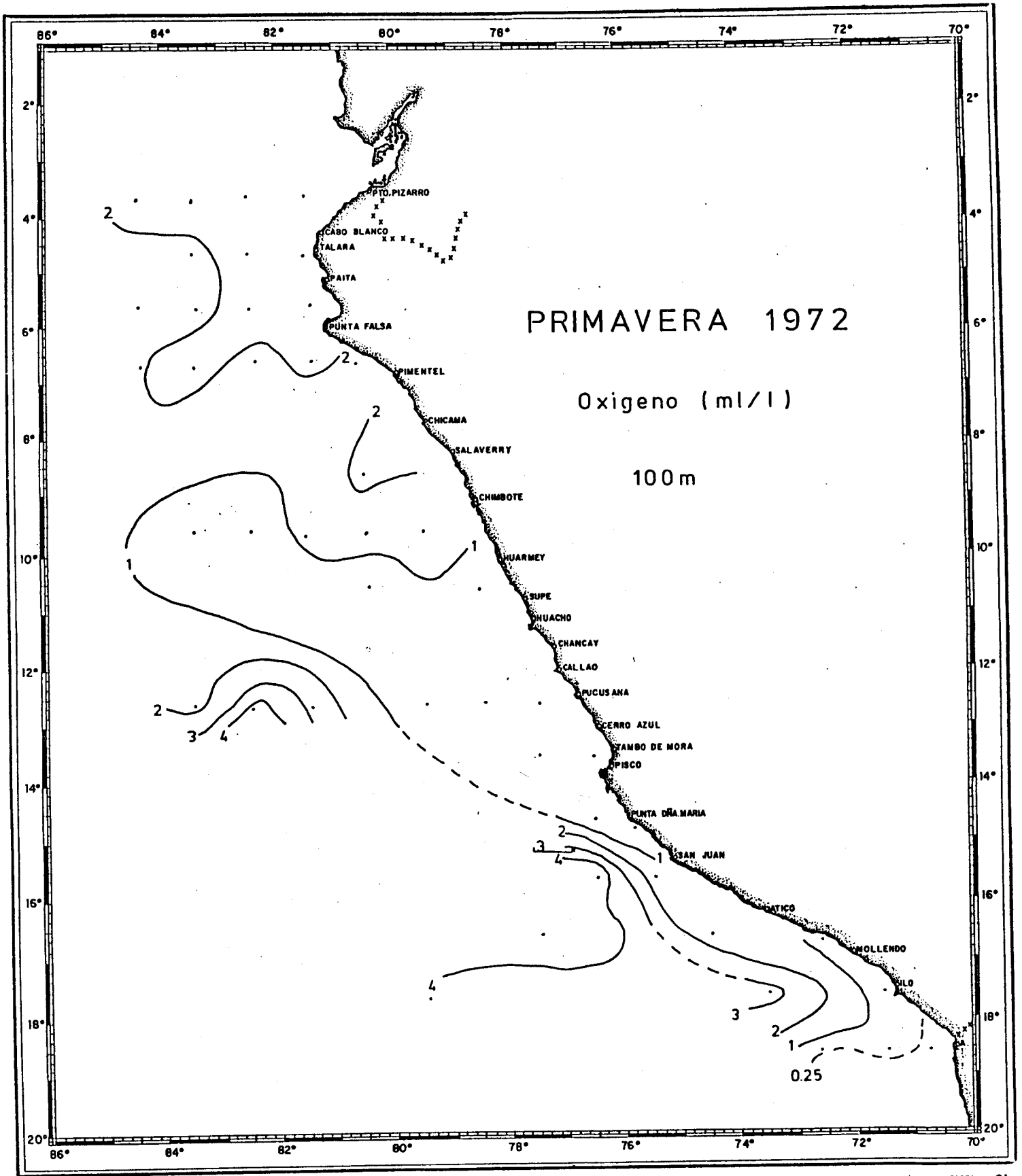


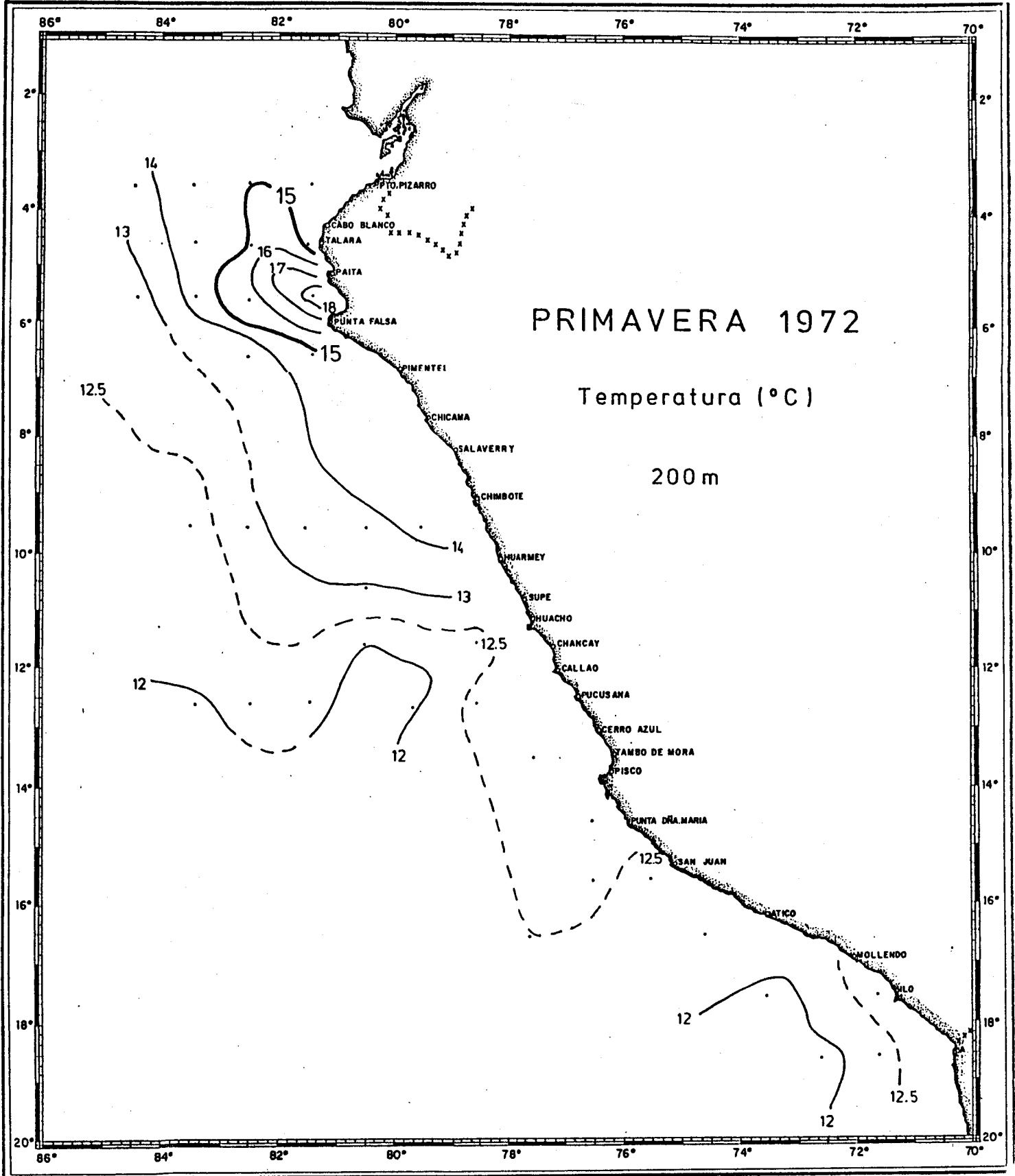








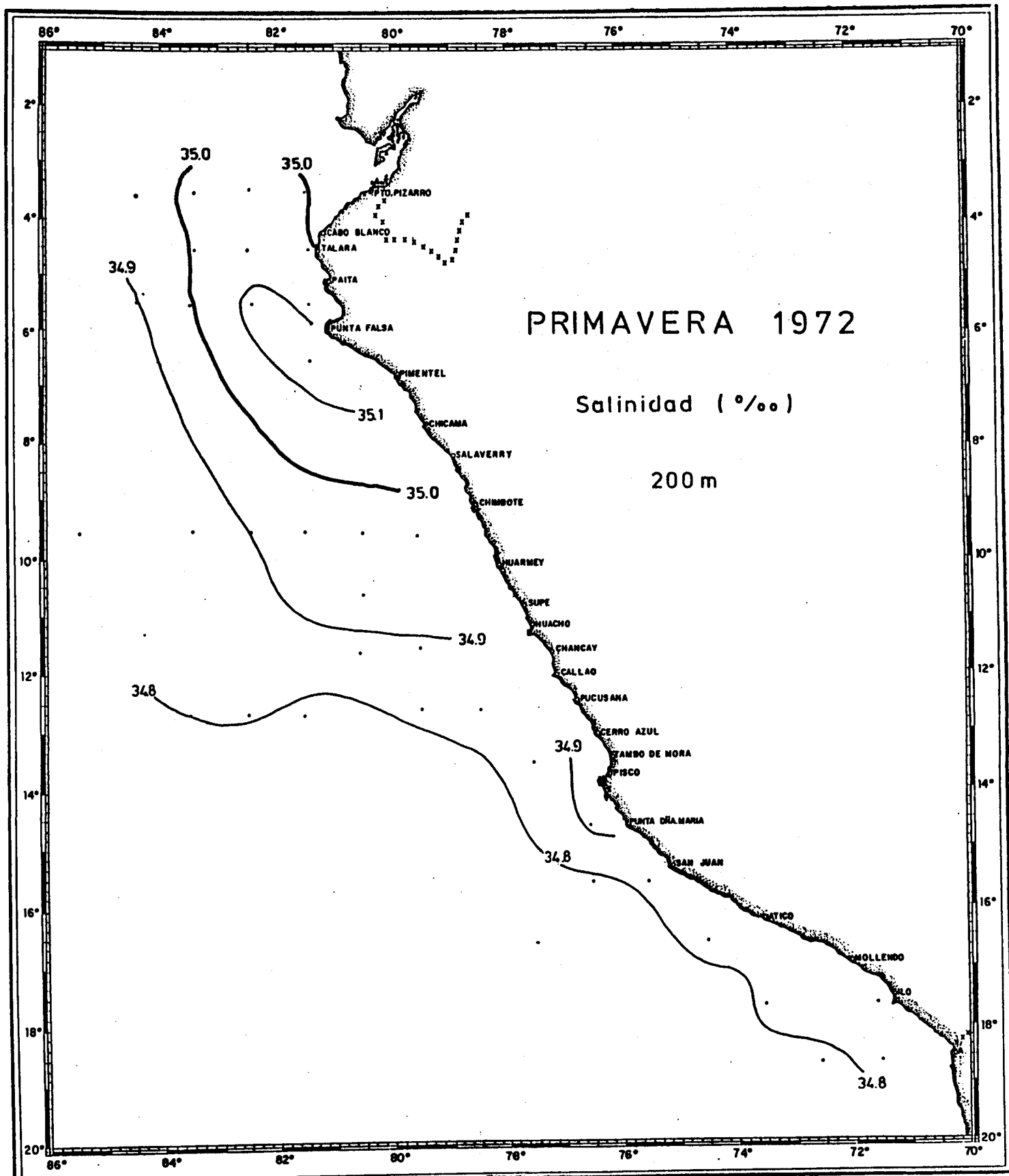


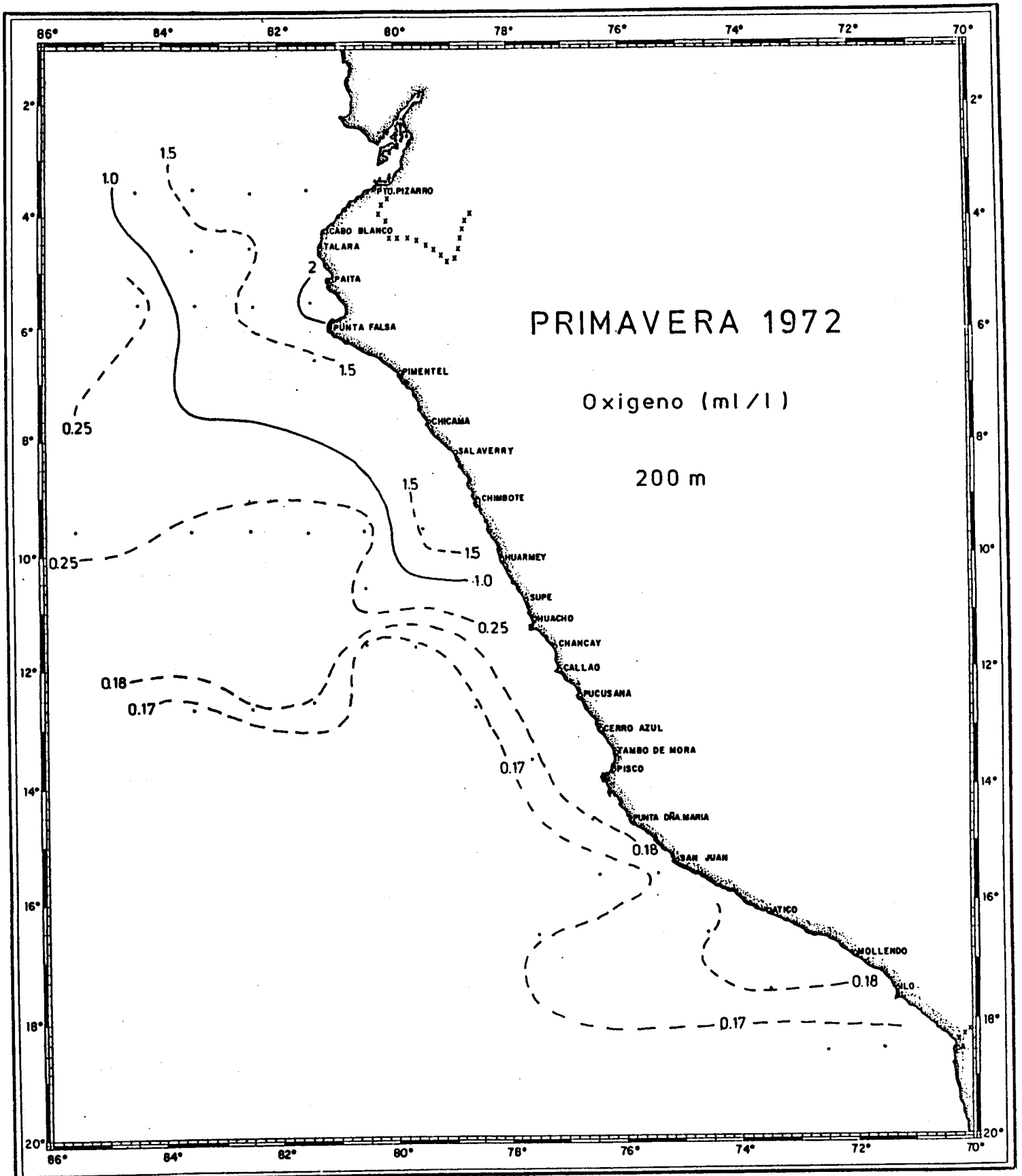


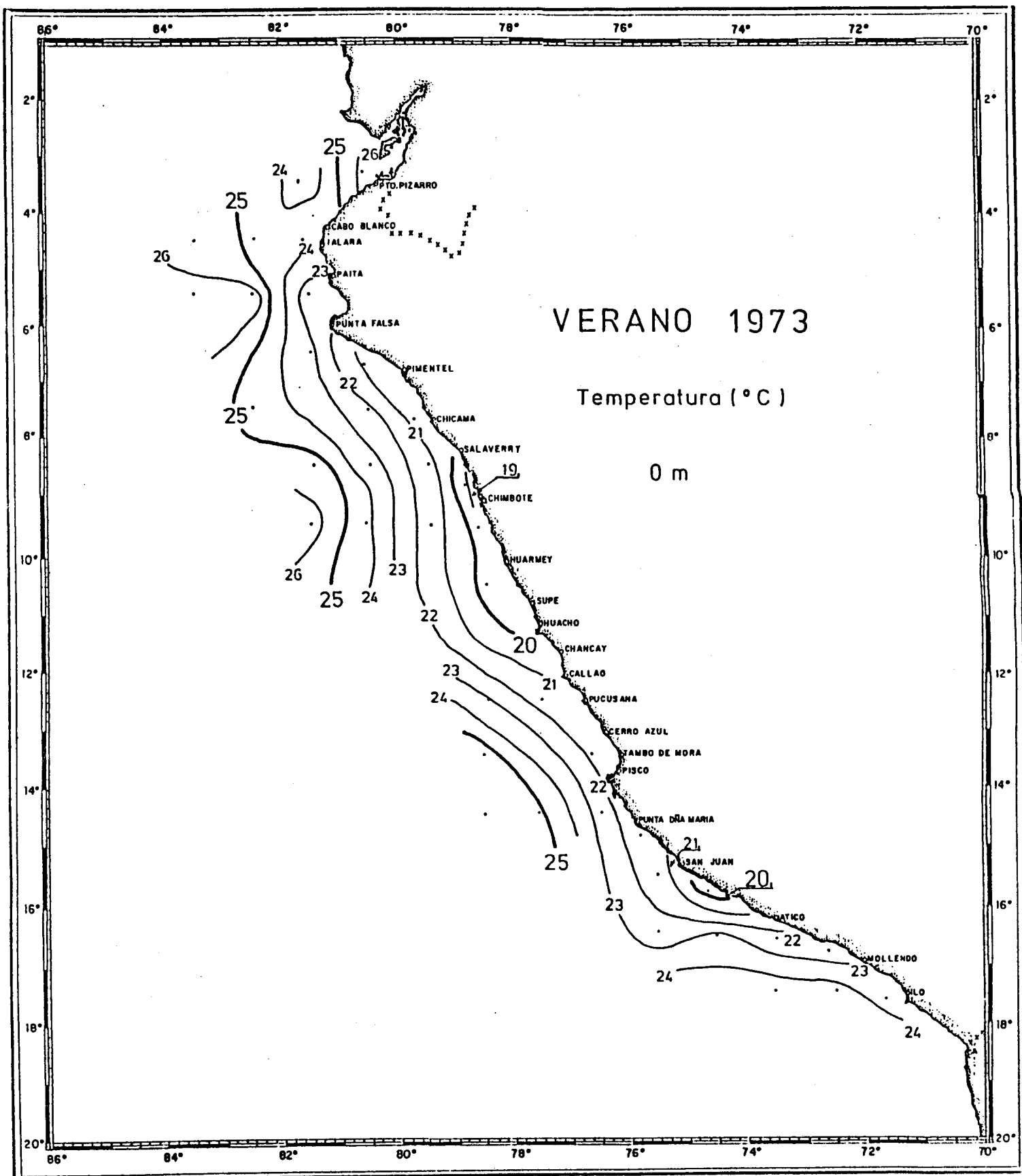
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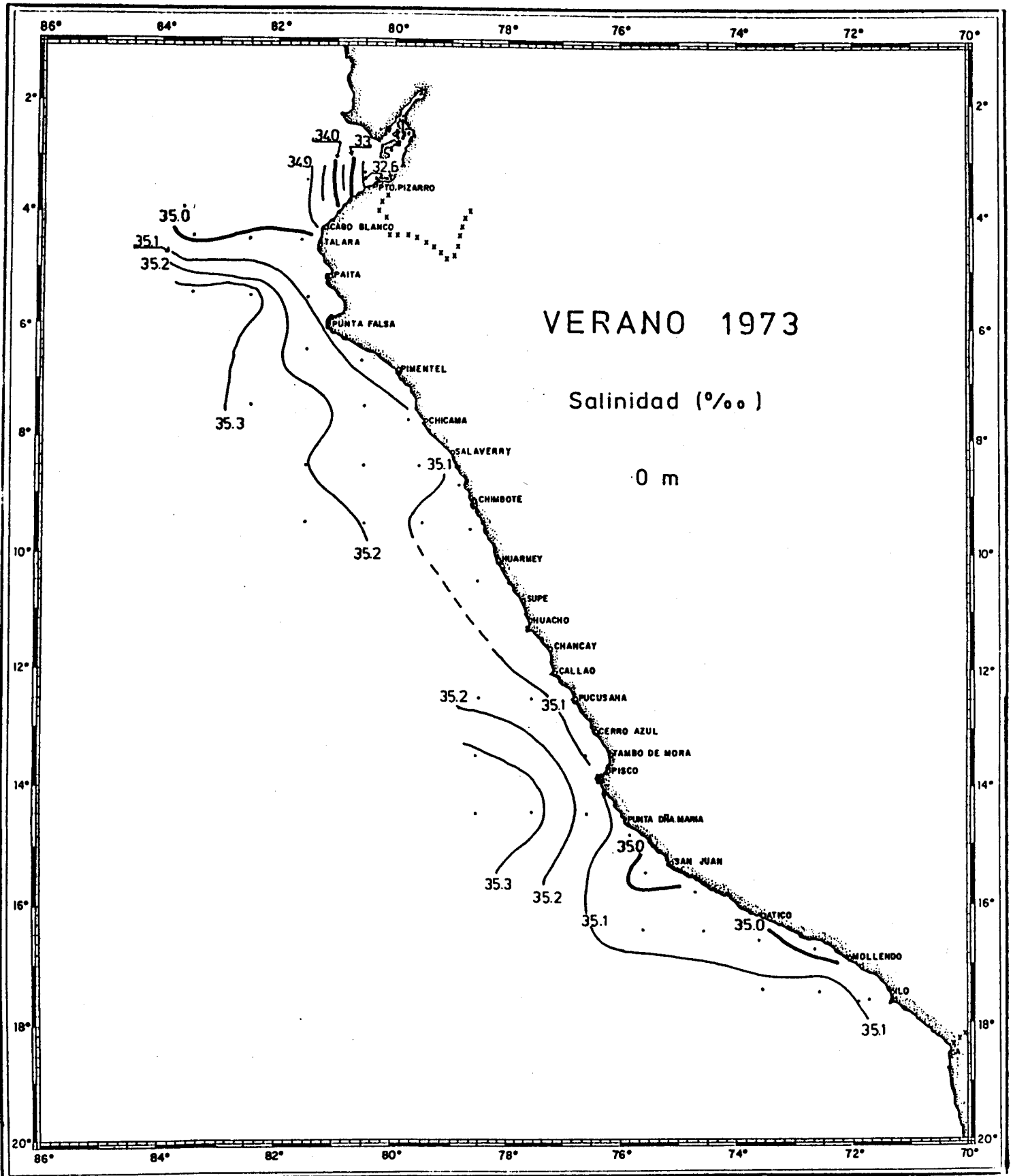
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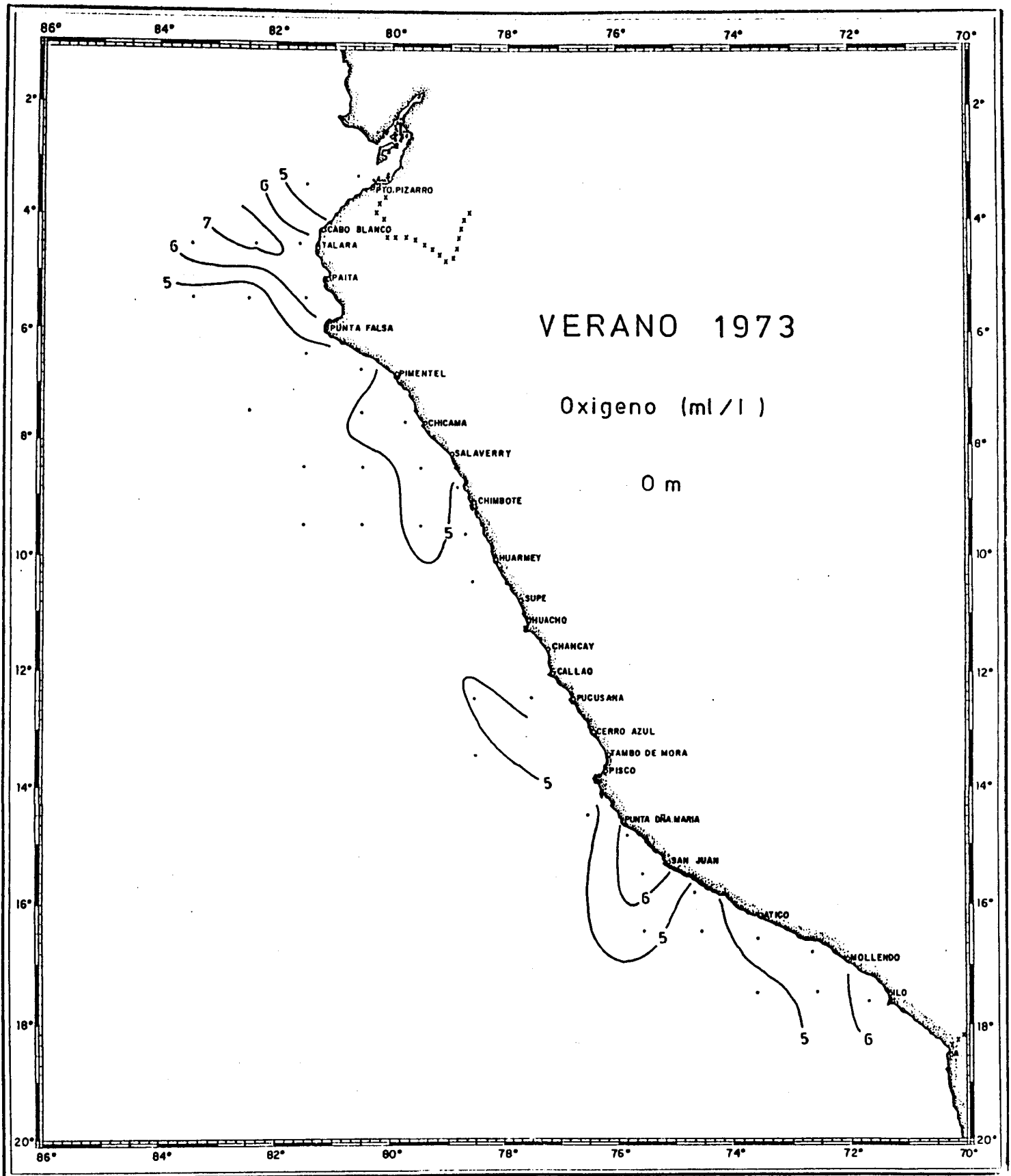
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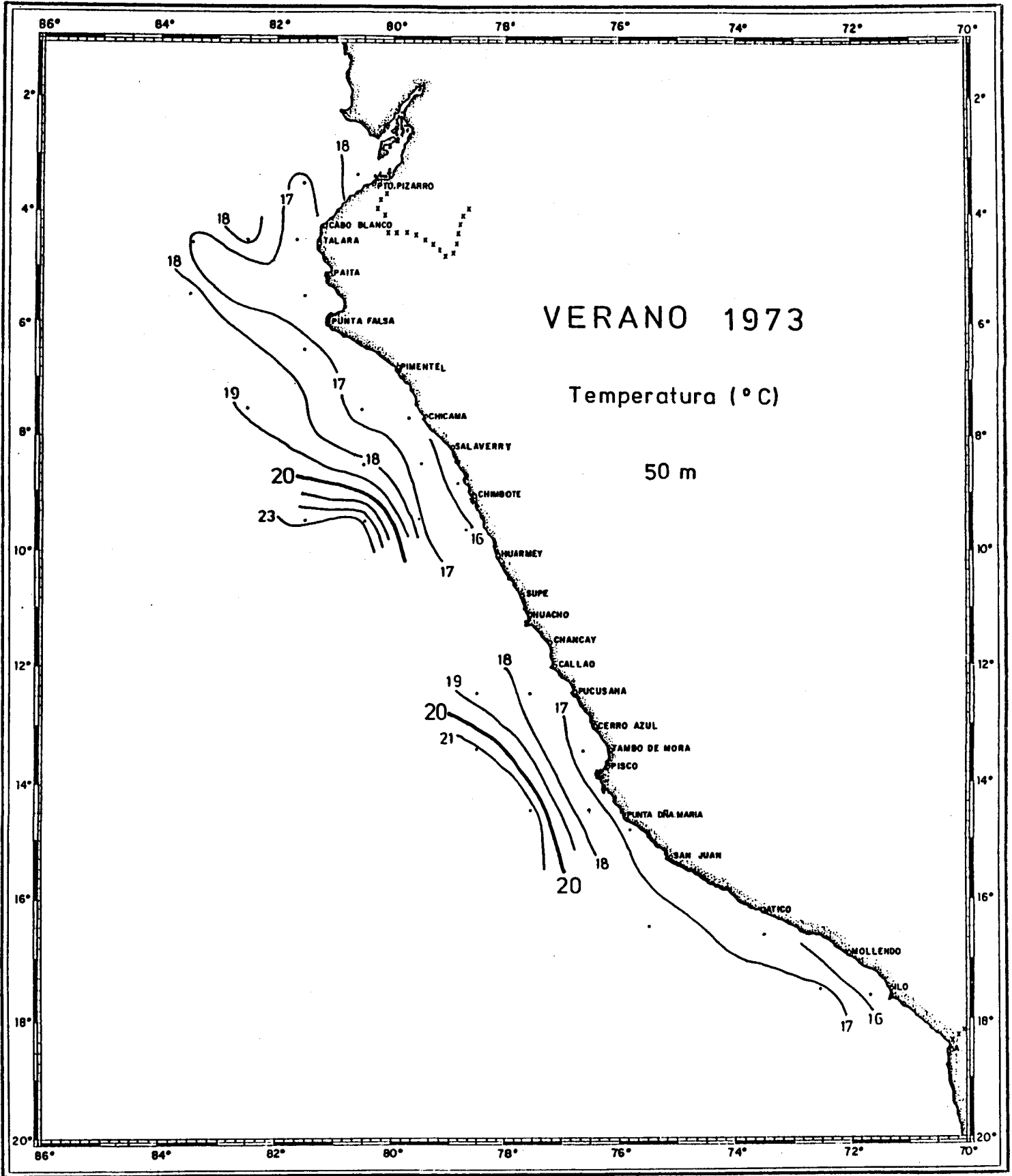


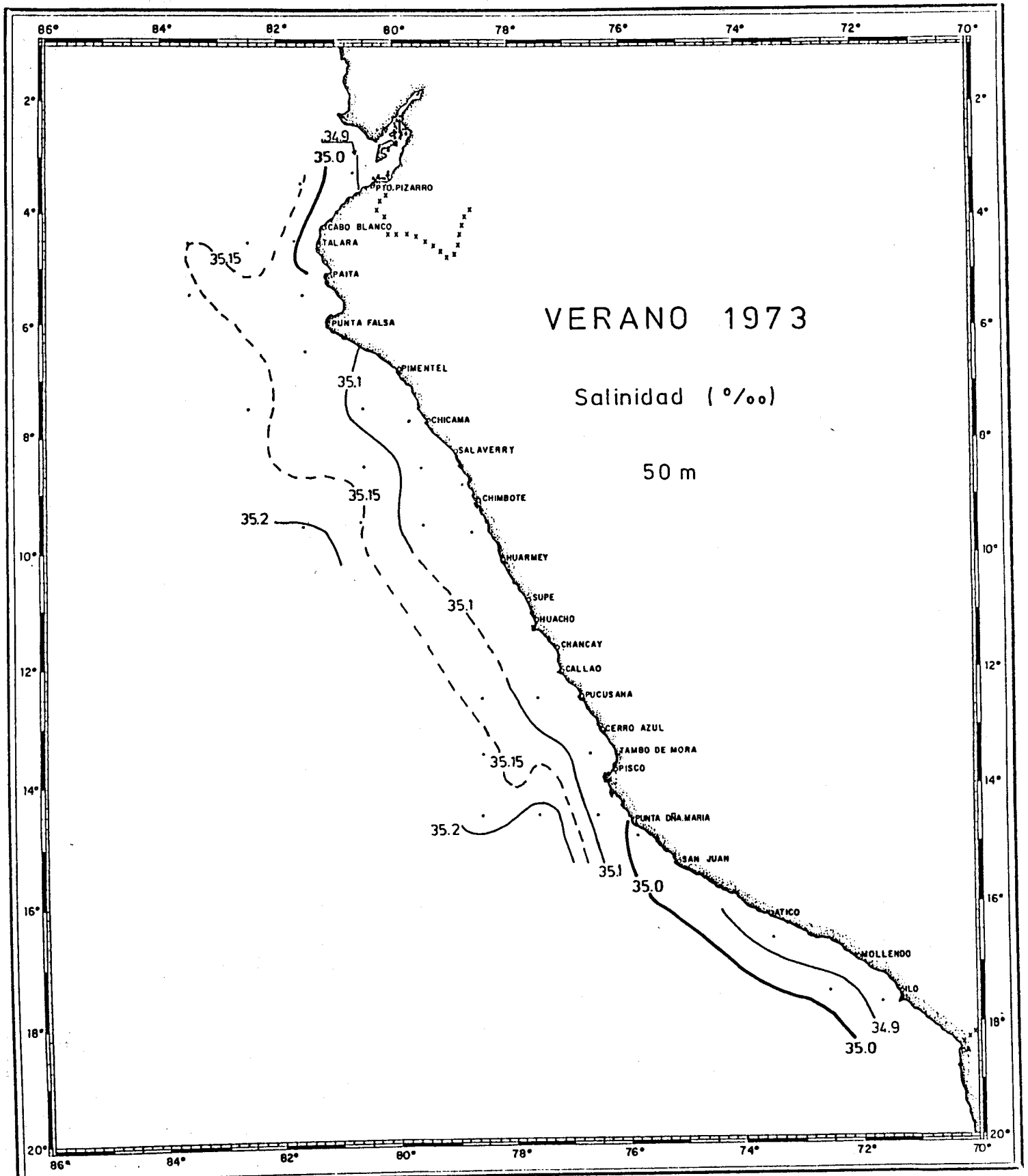


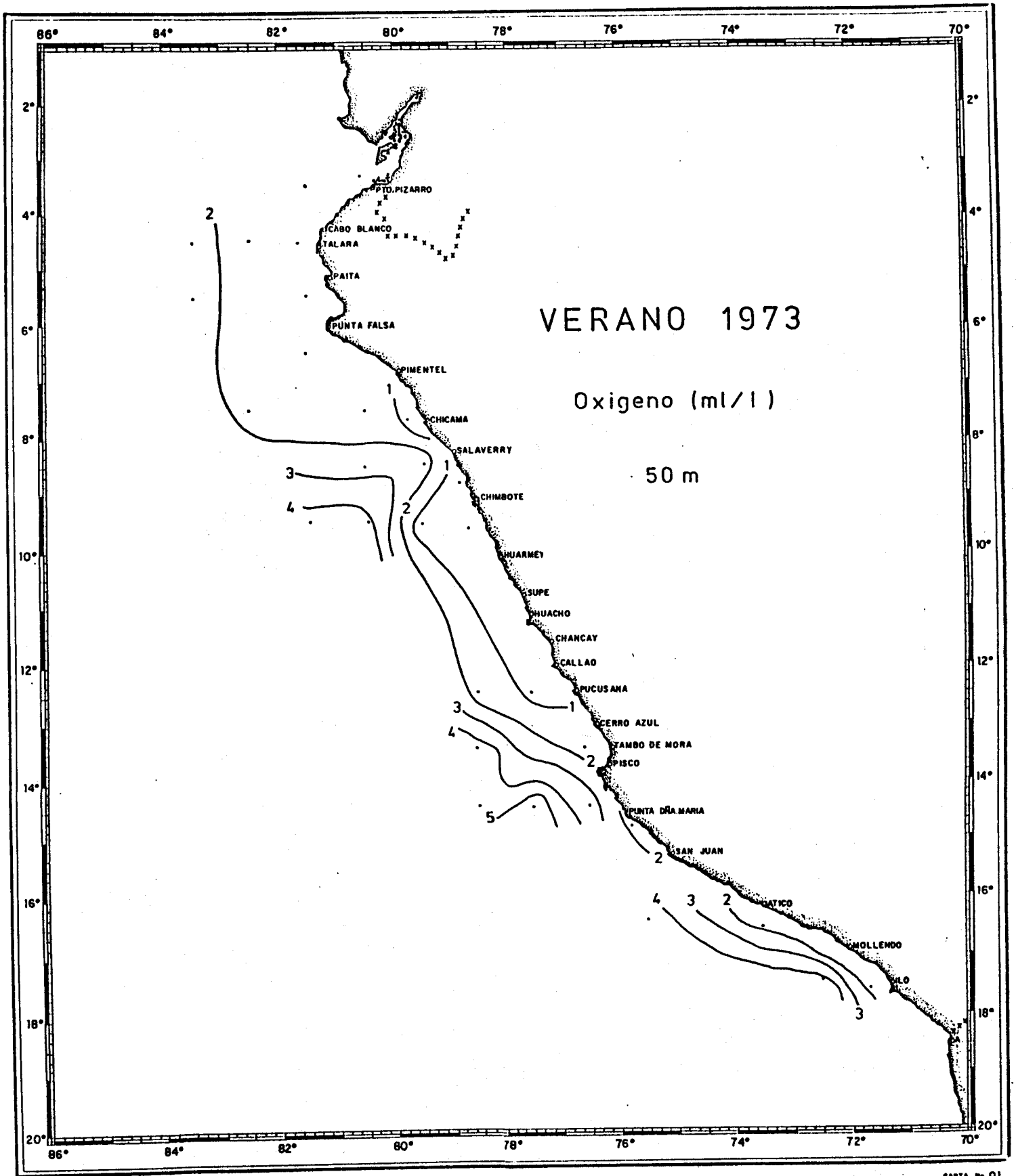


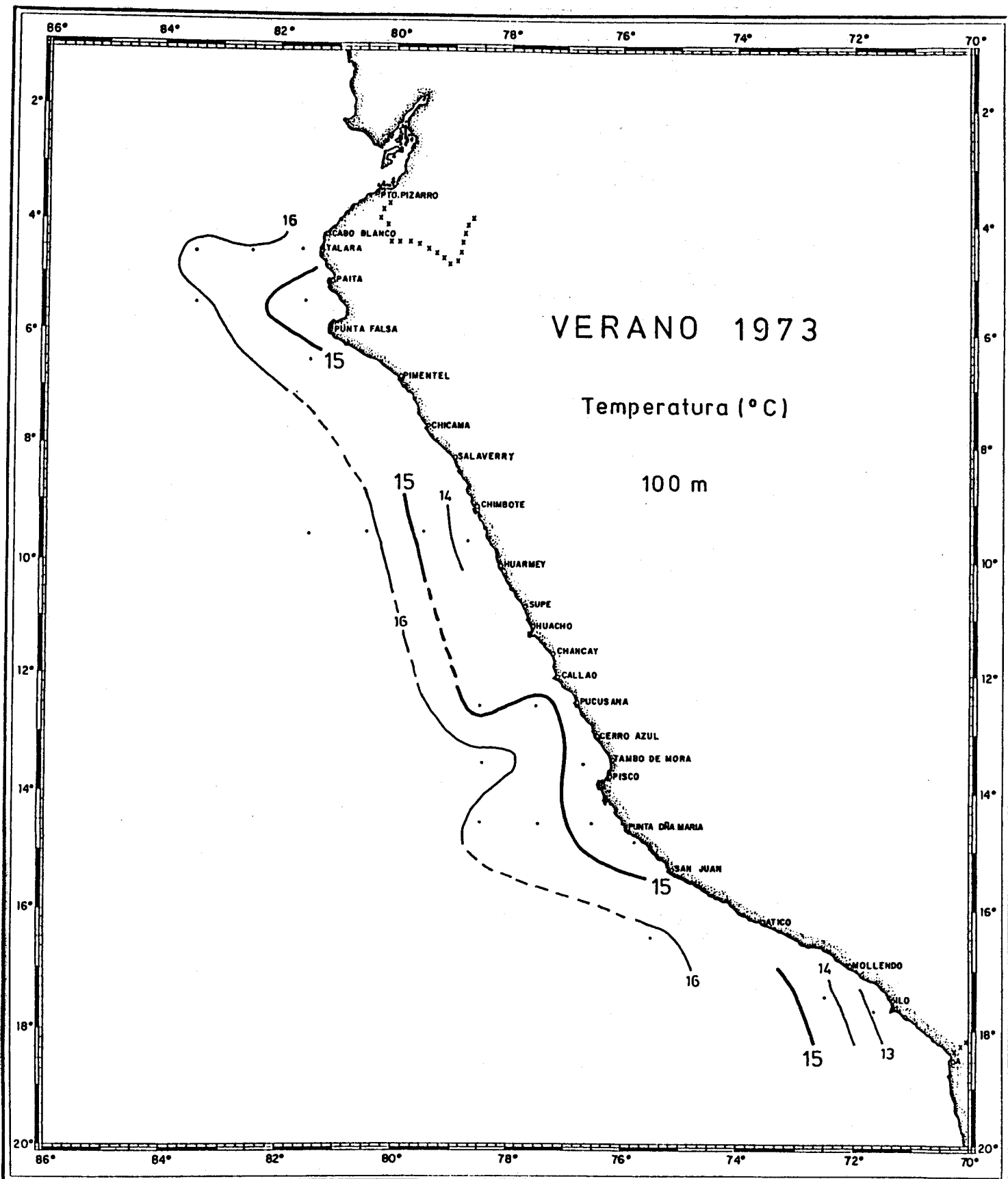


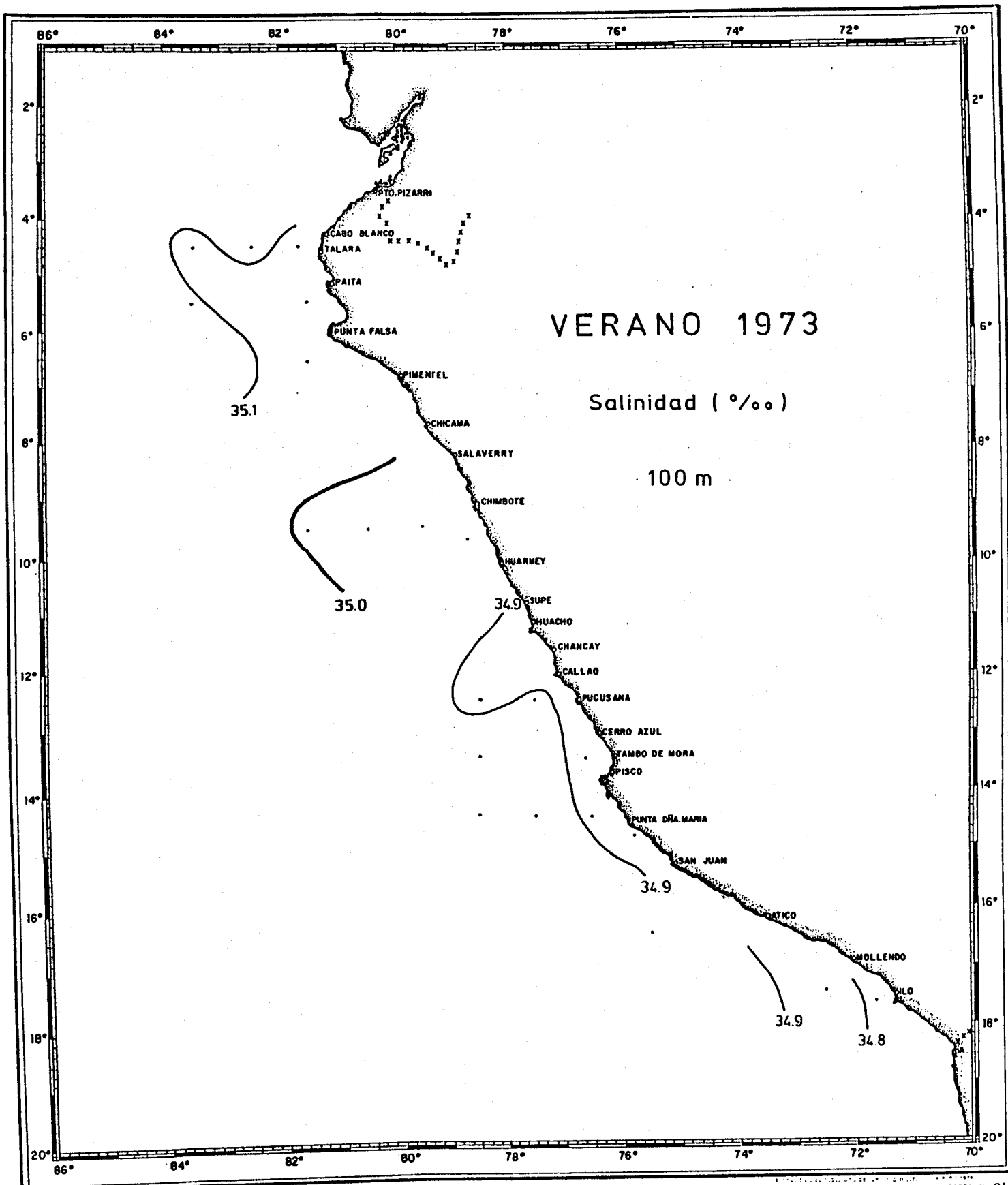


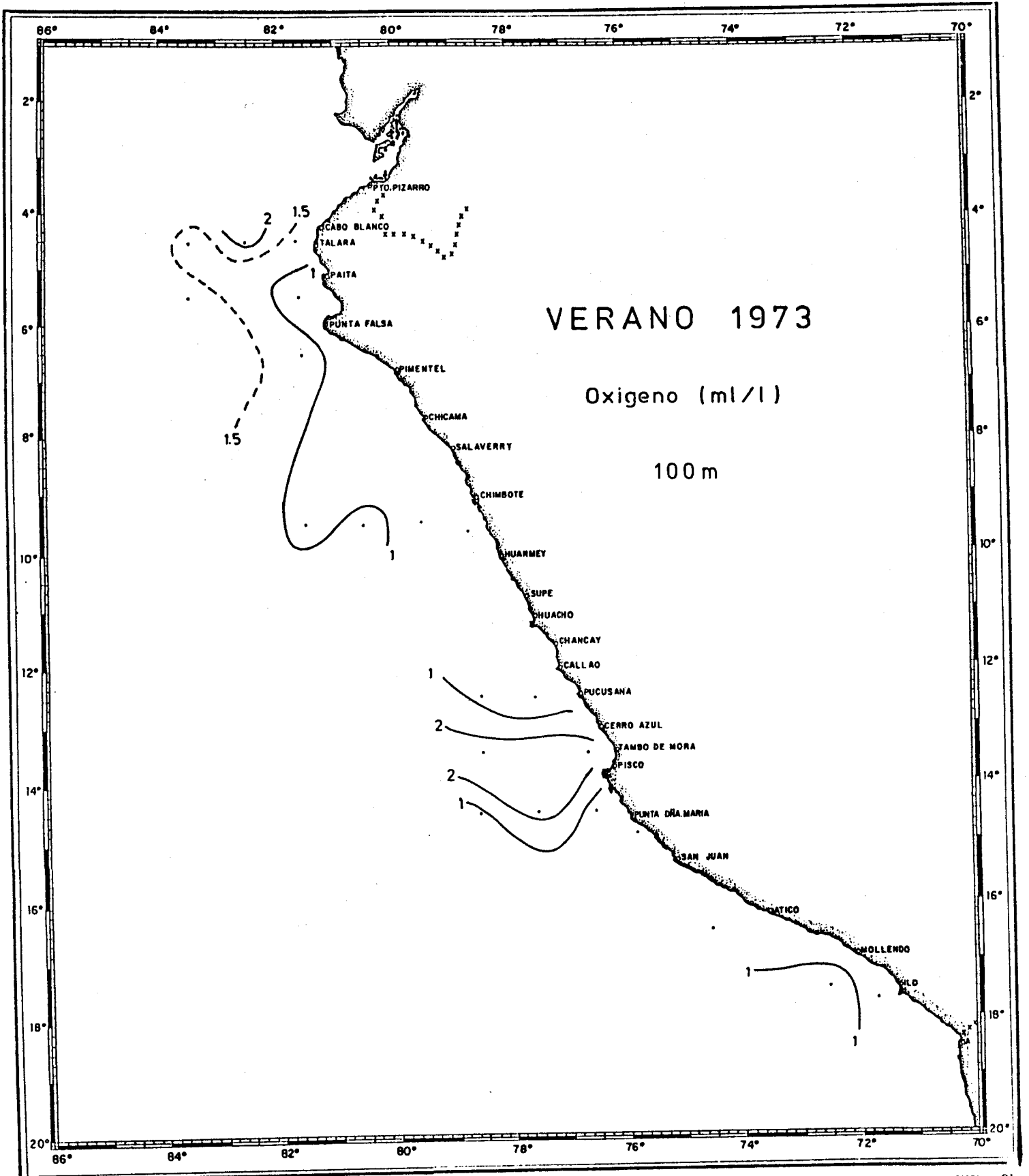


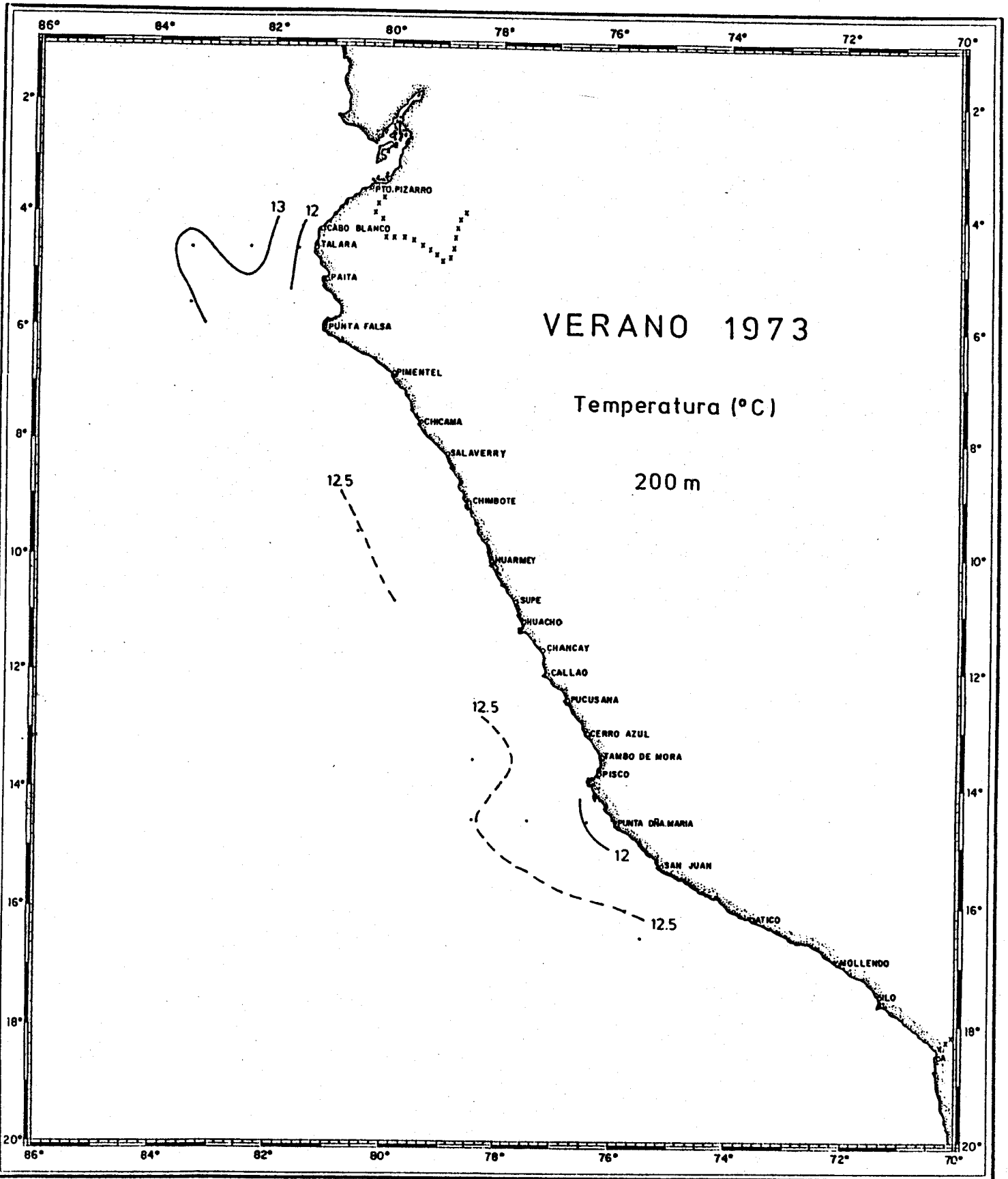


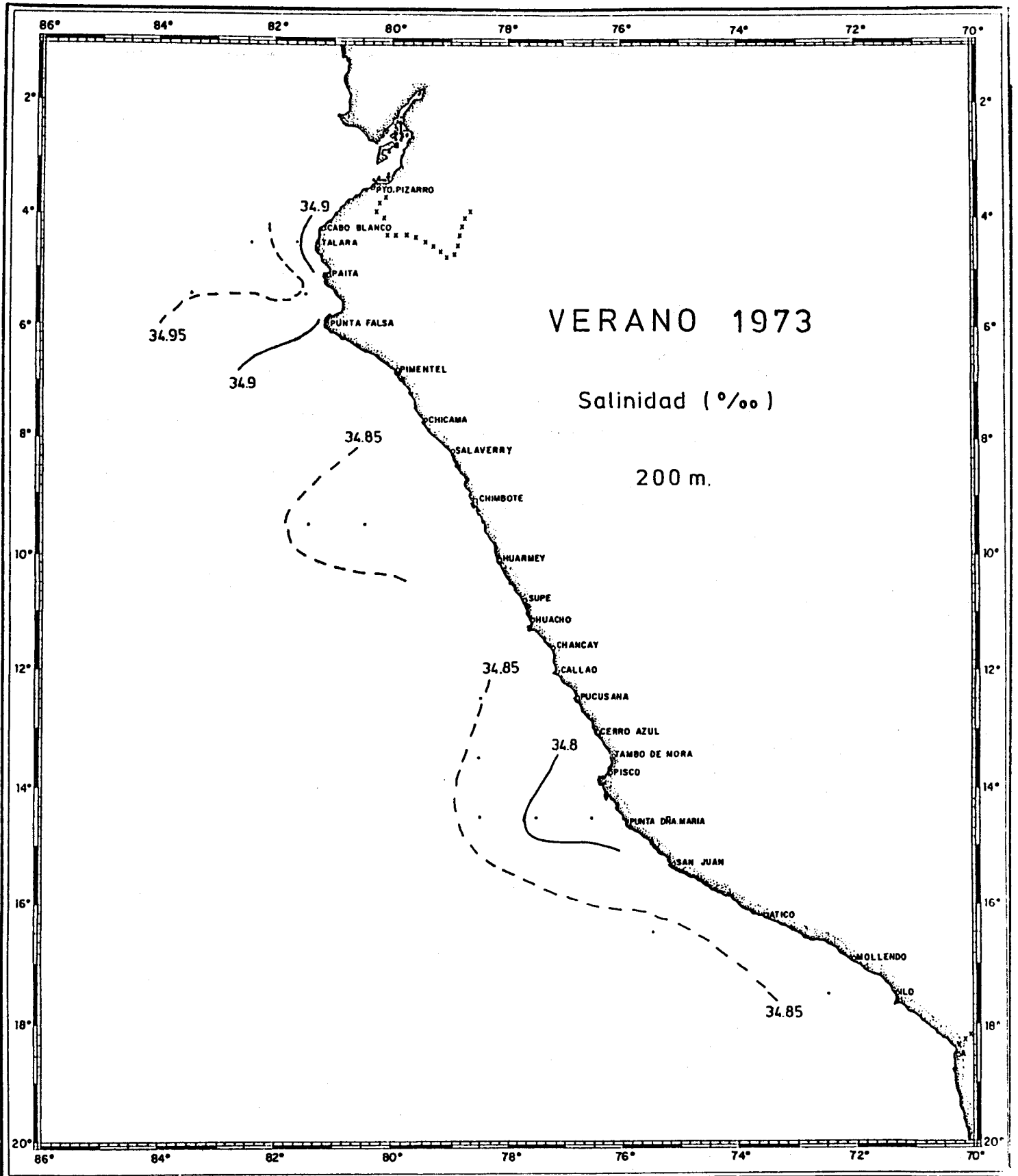


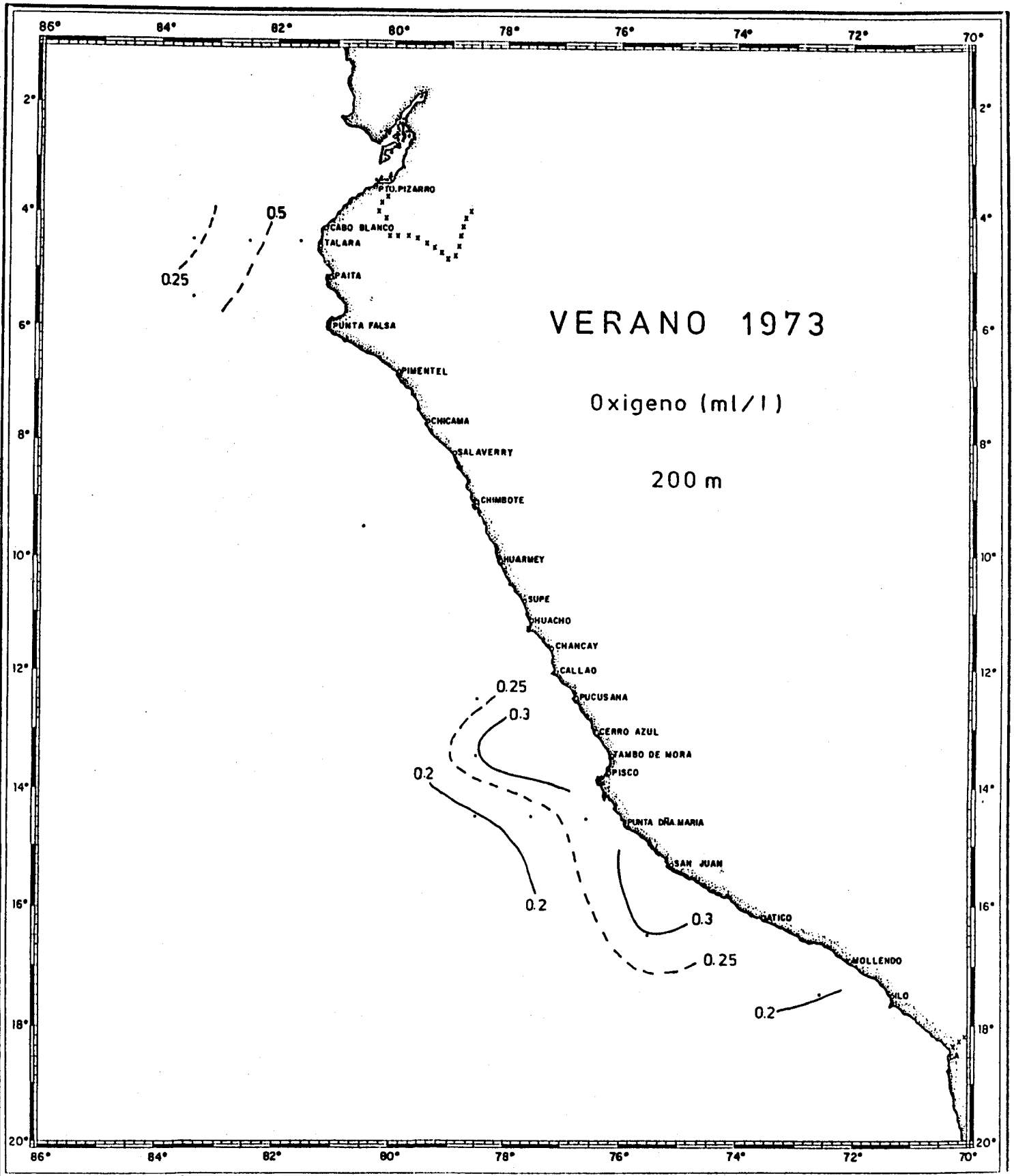


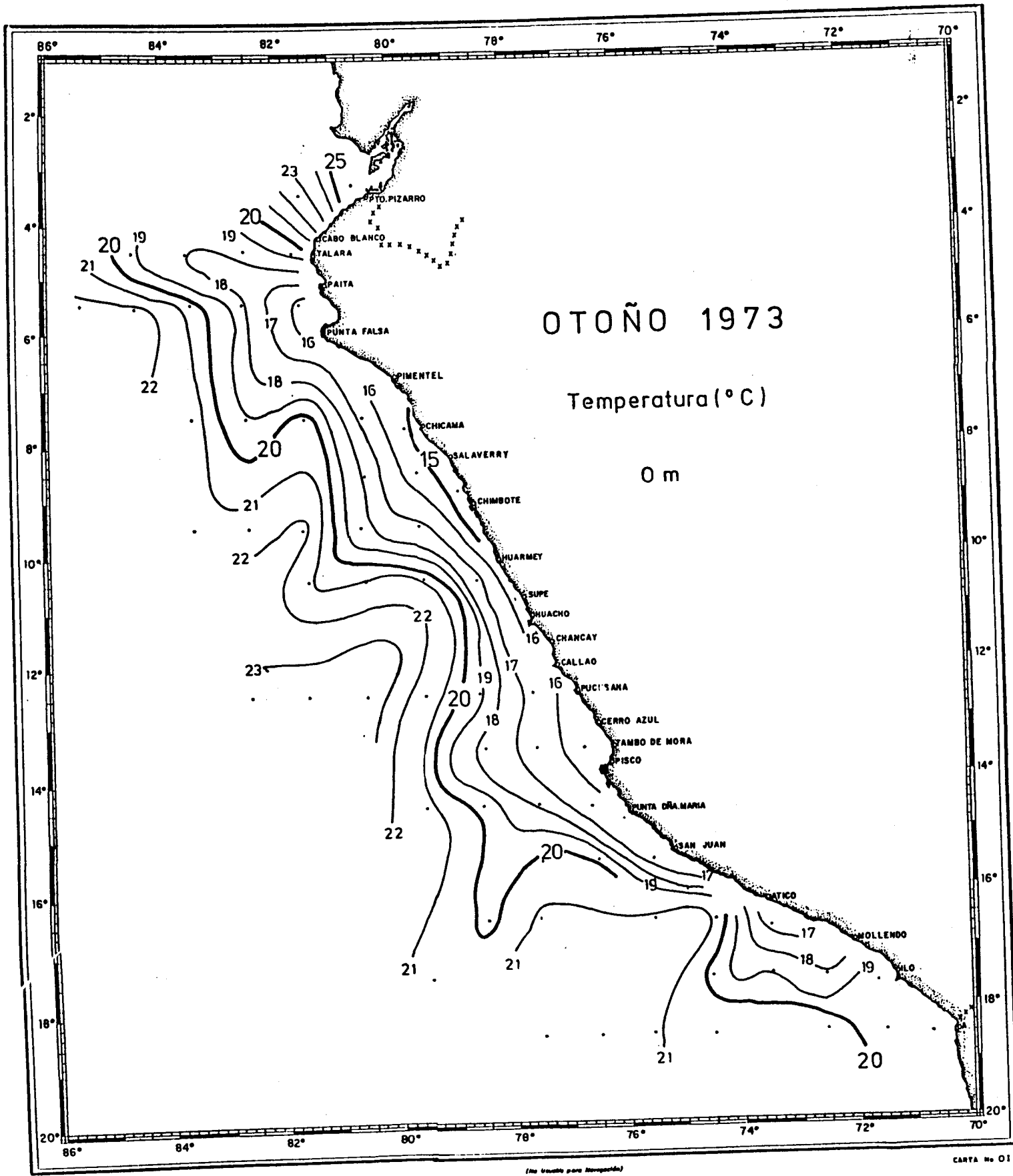








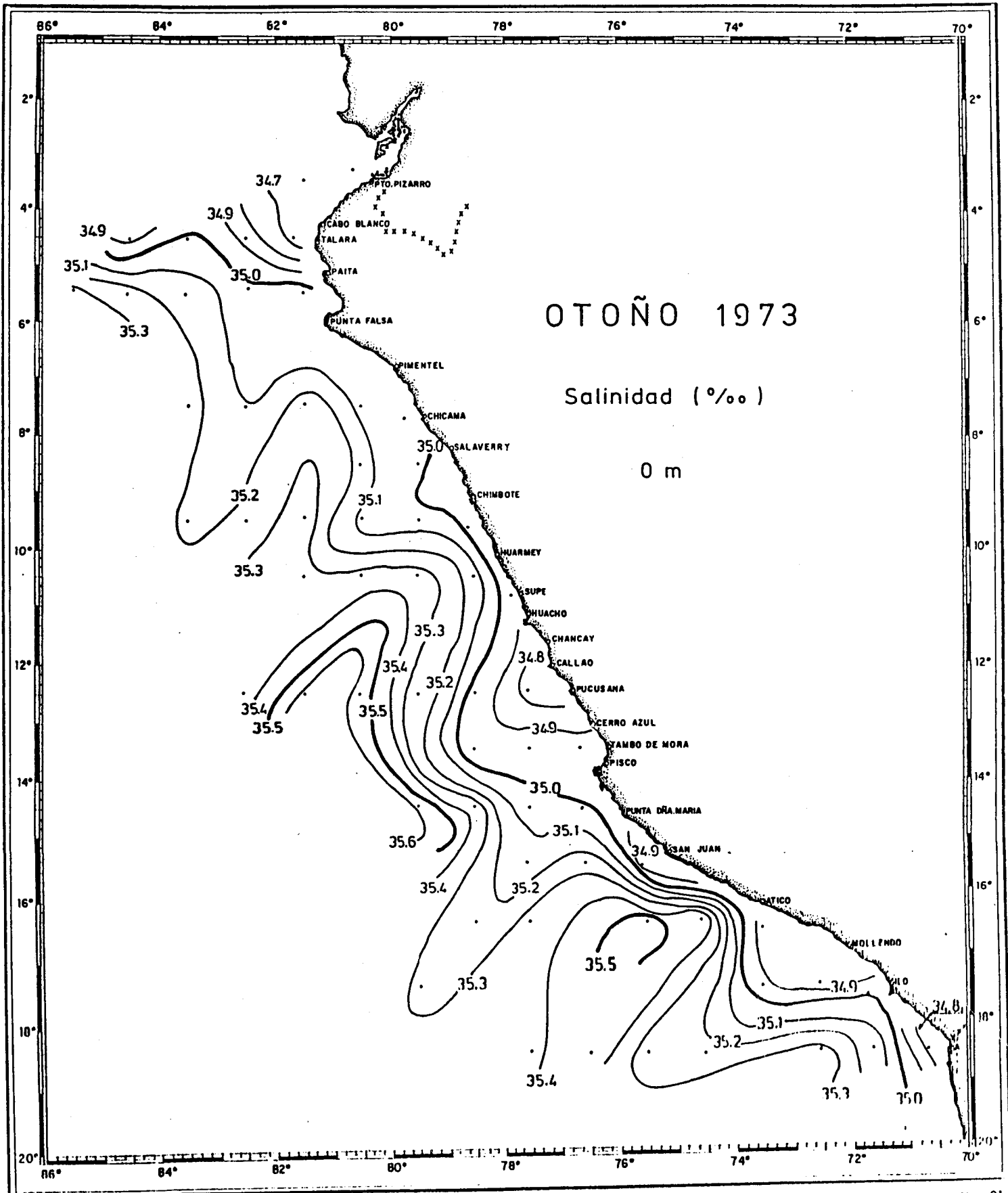


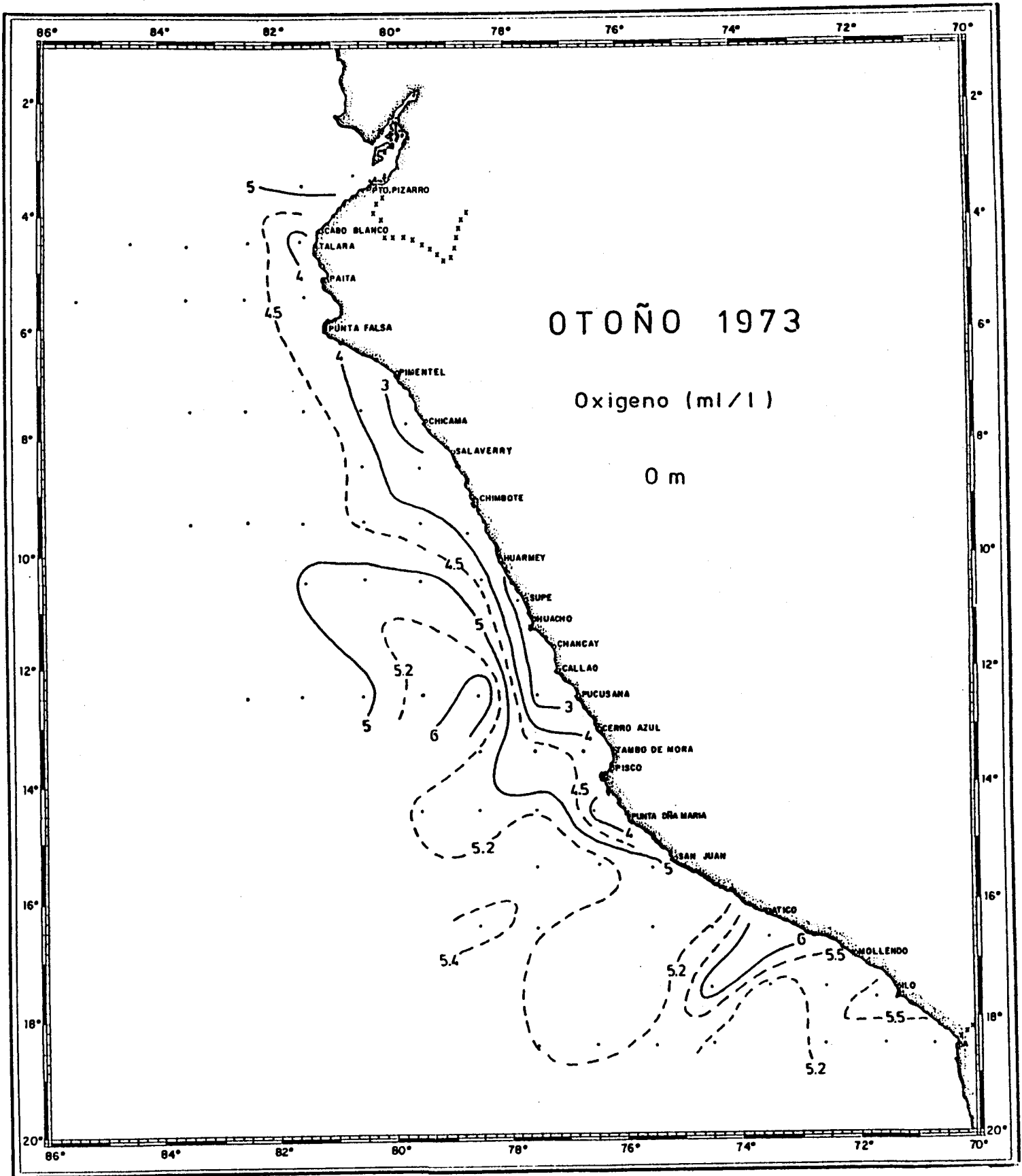


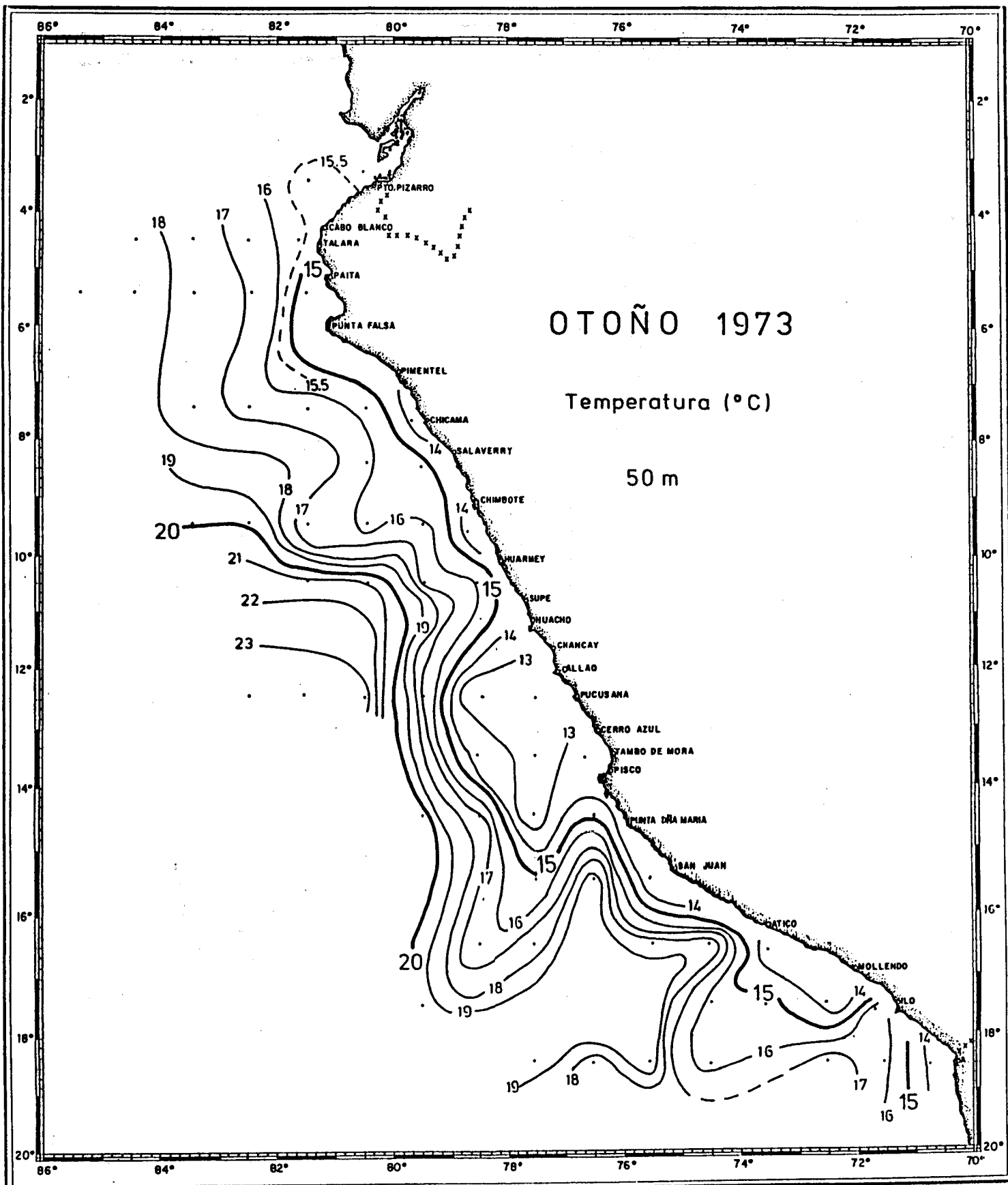
INSTITUTO DEL MAR DAPSO

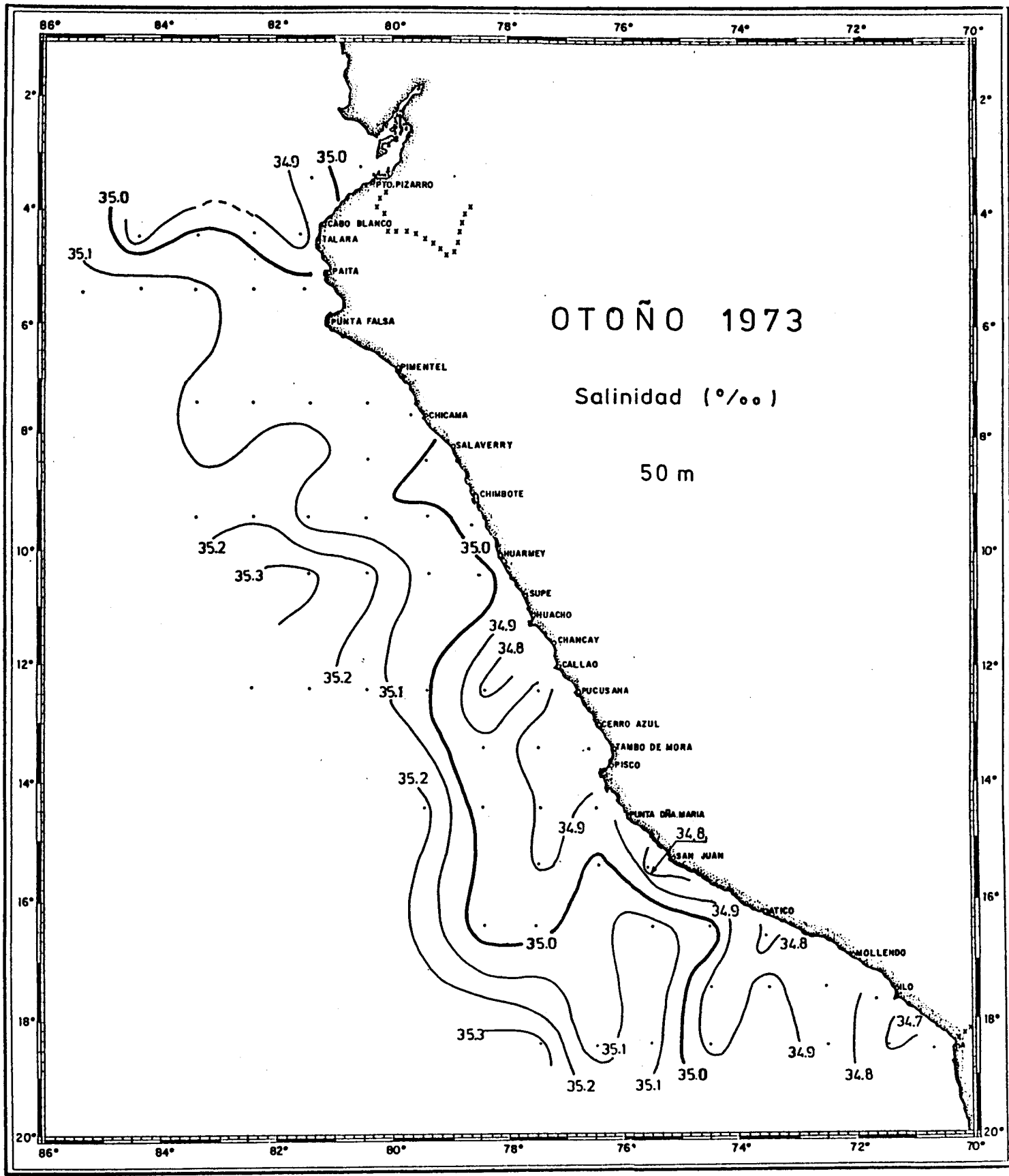
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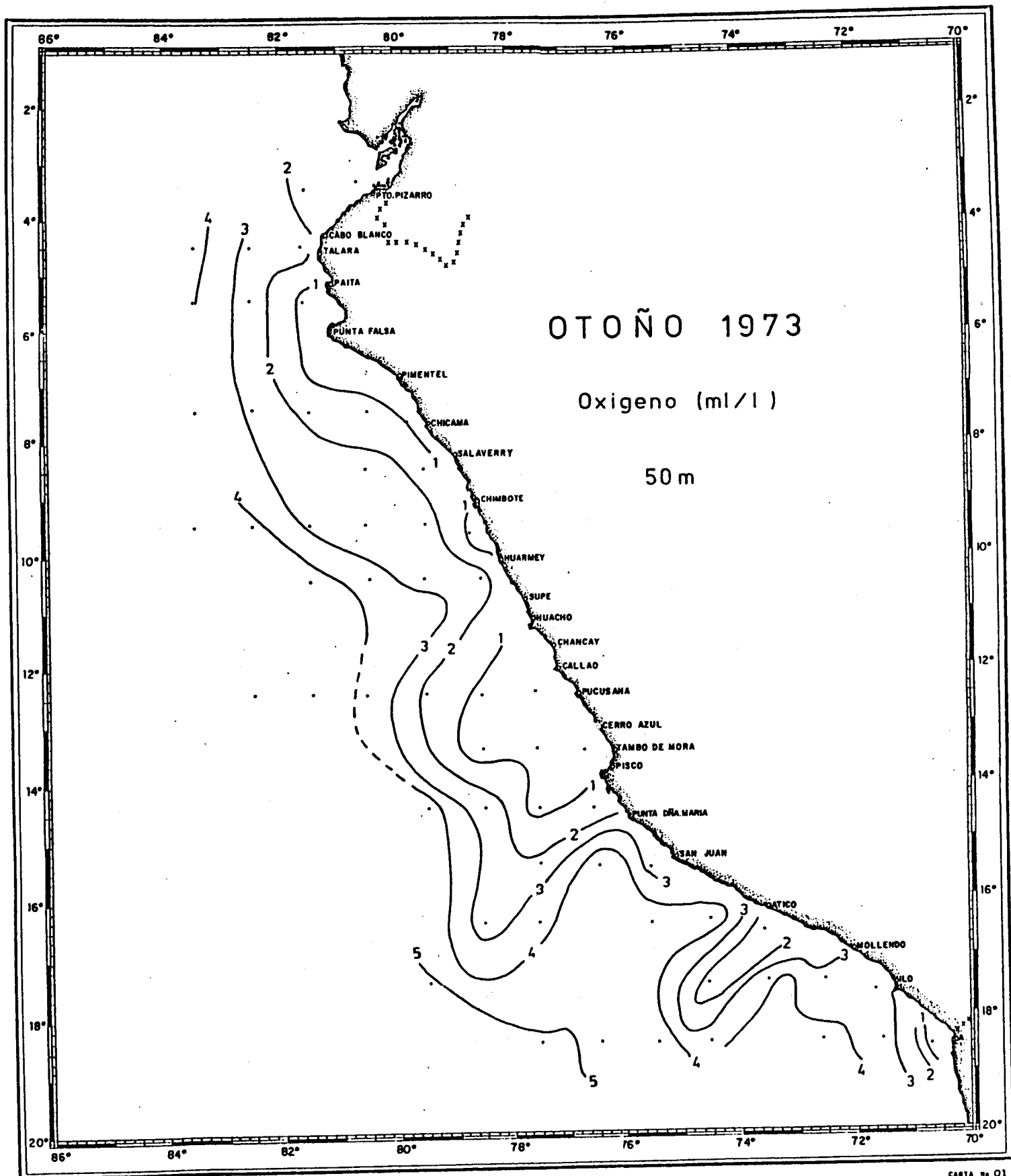
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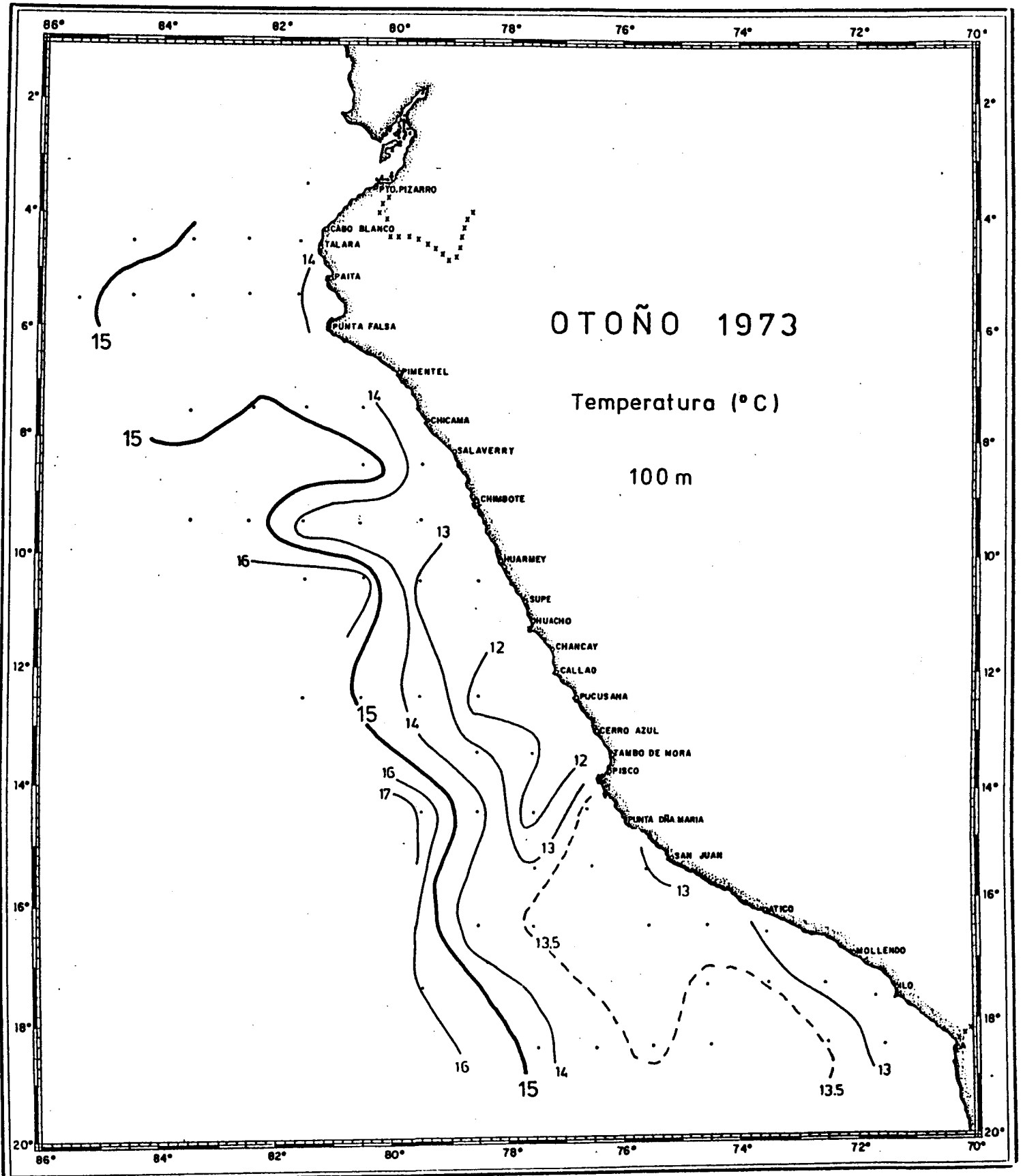


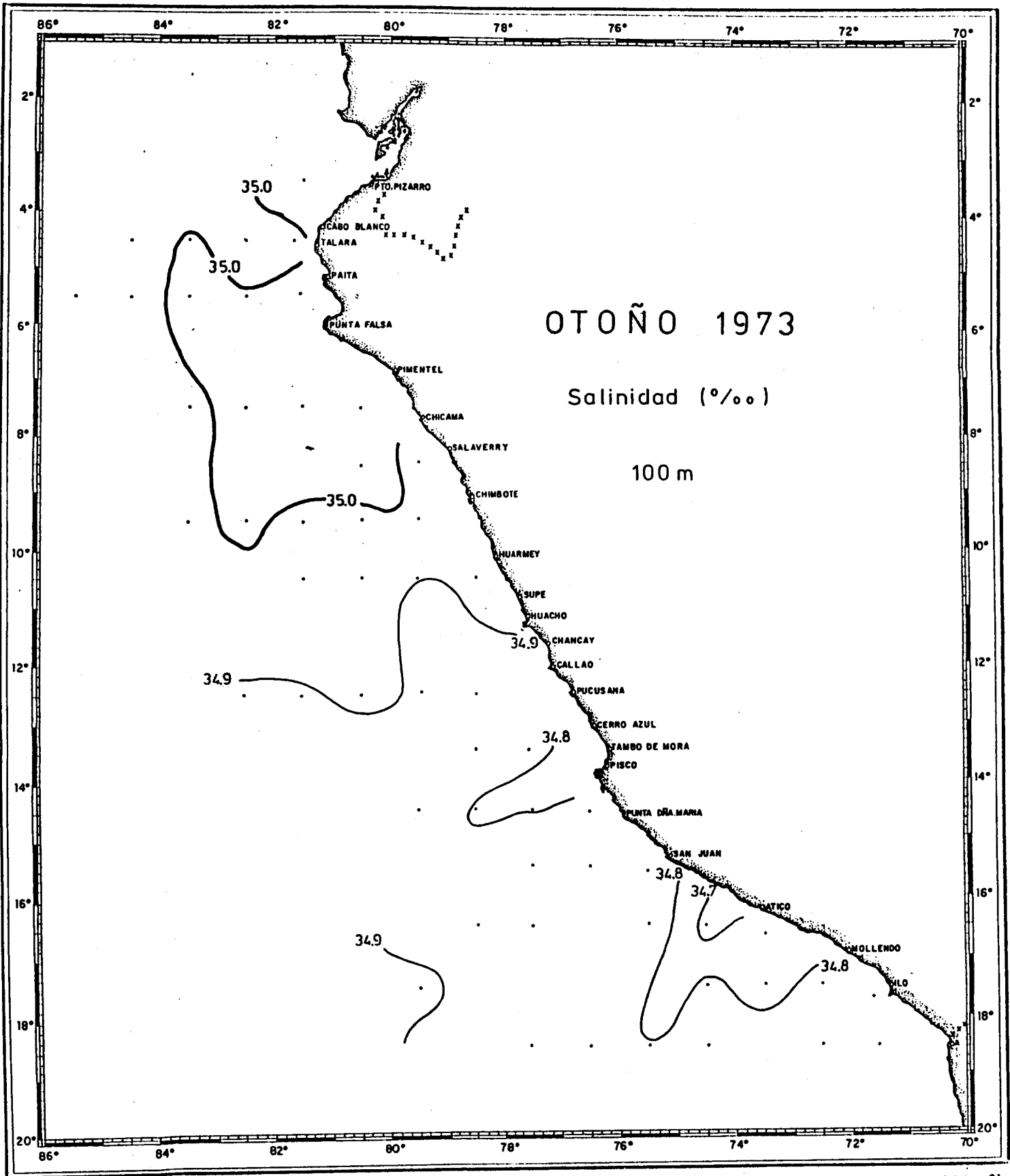


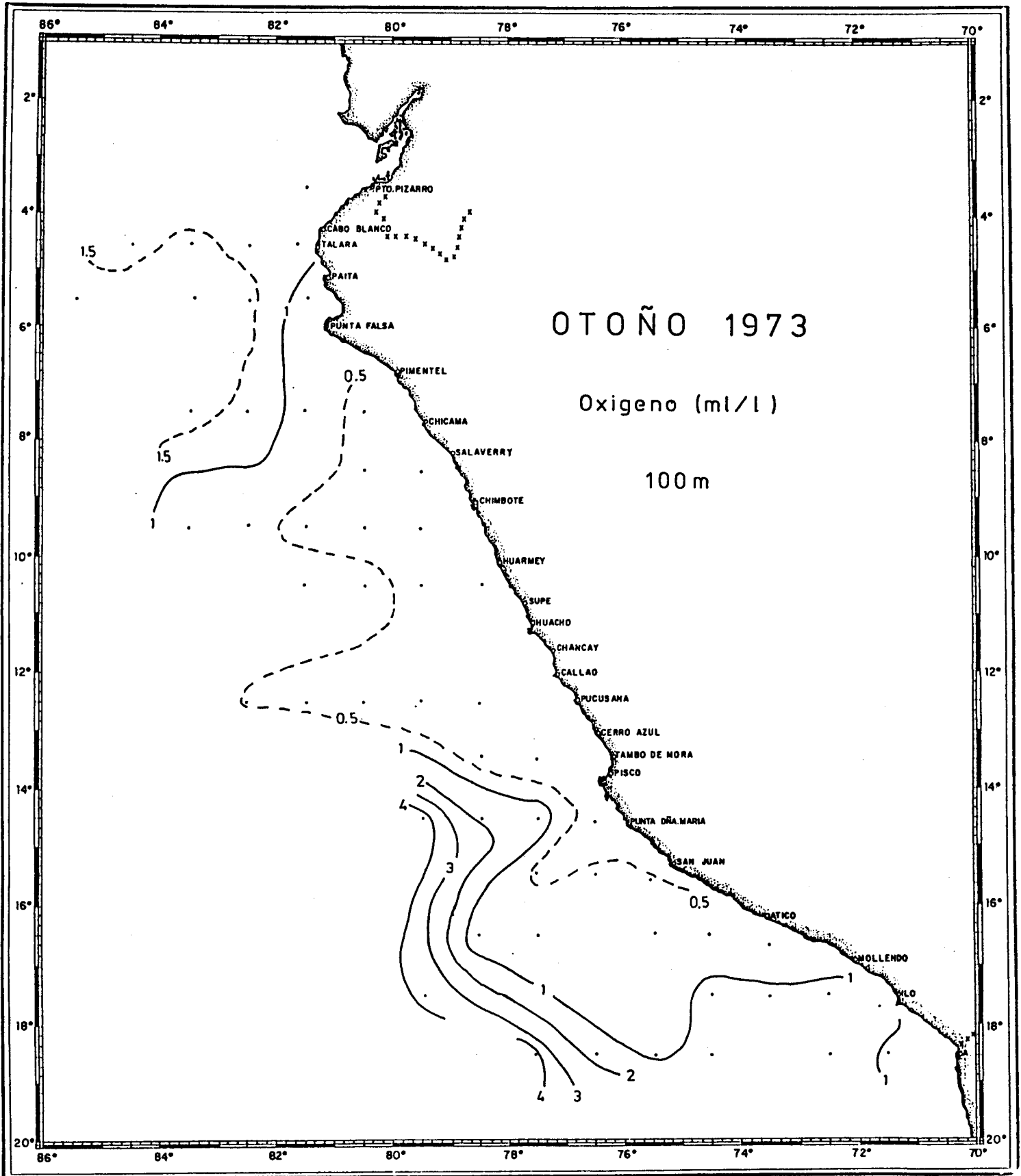


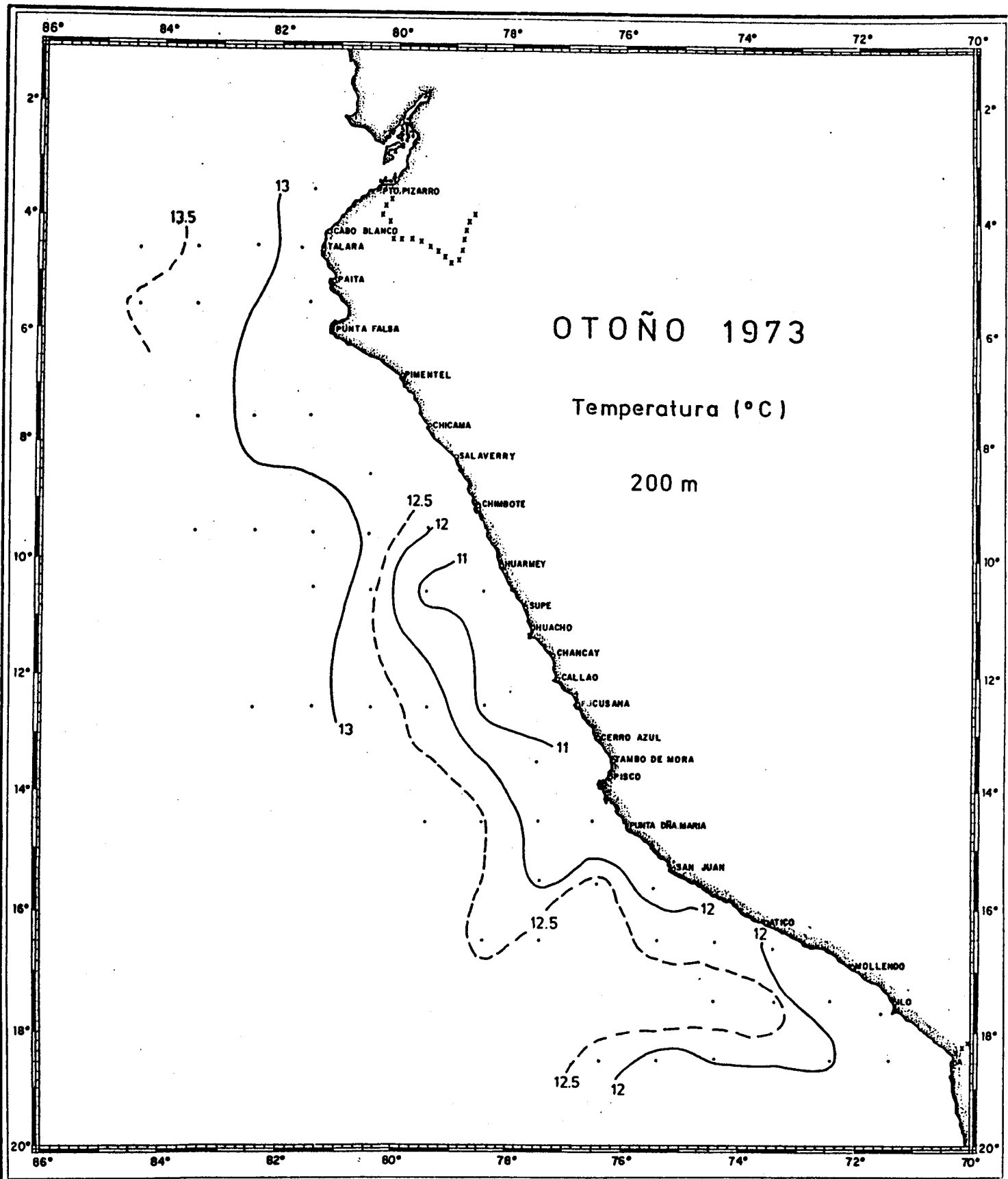


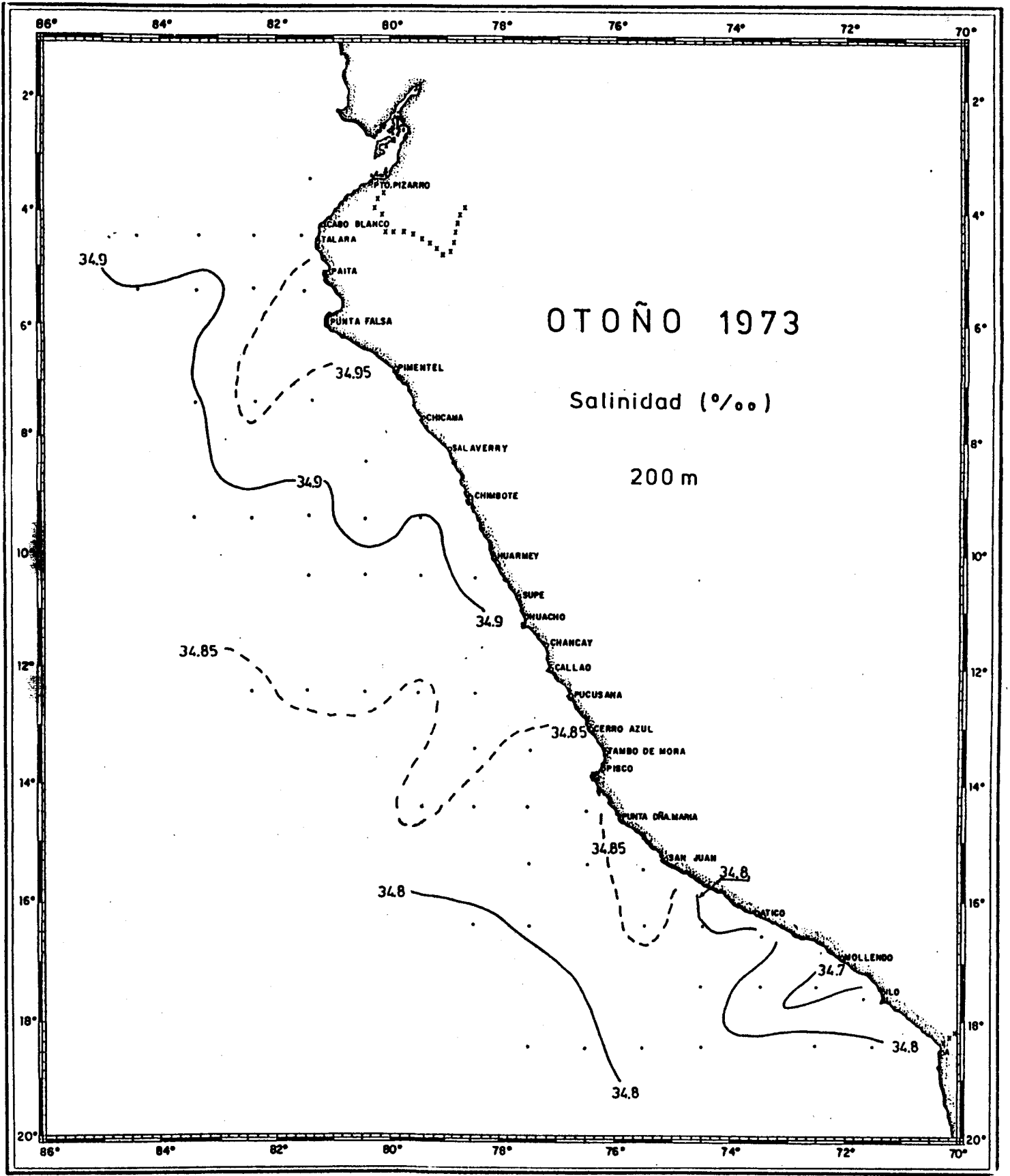


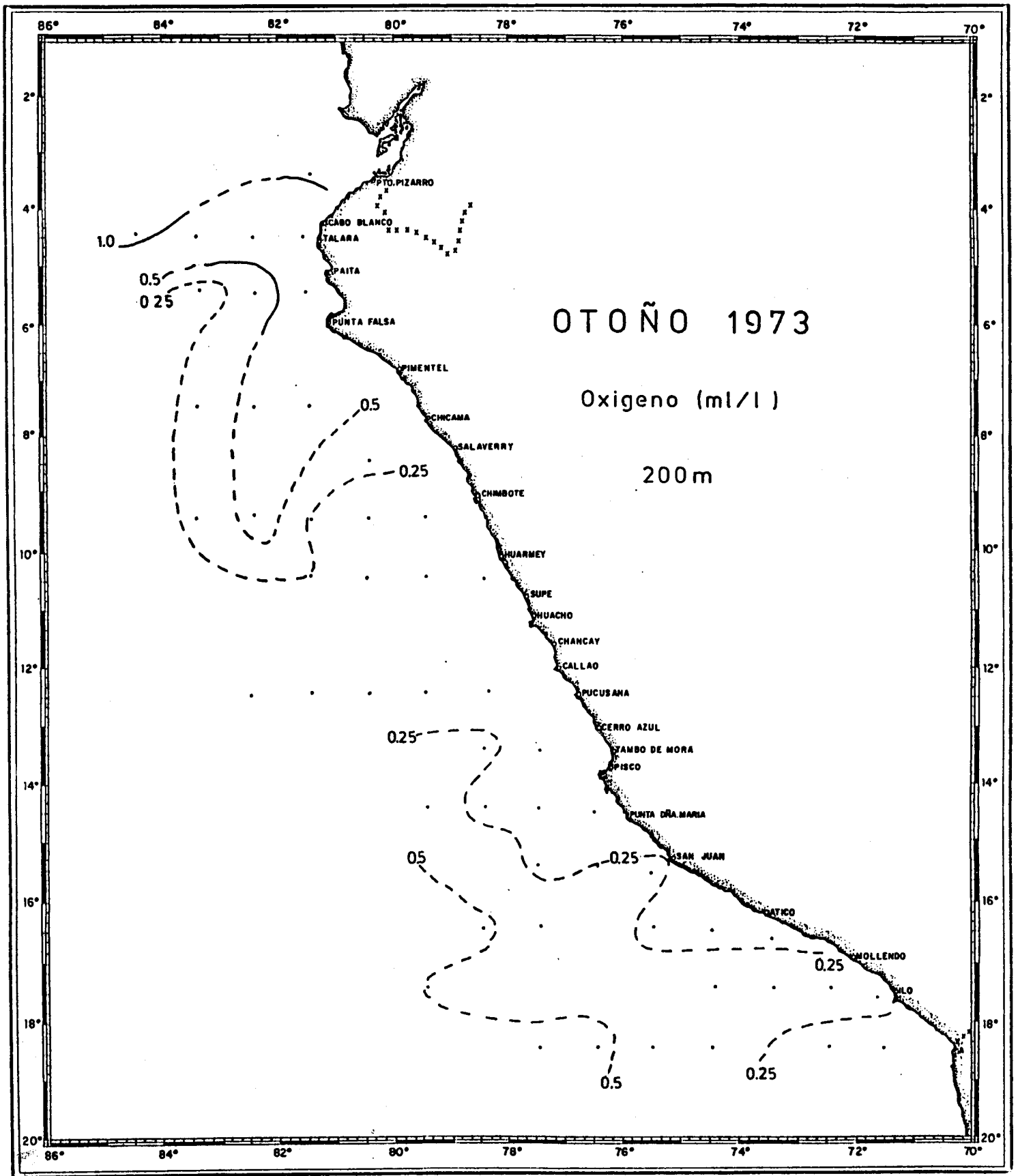


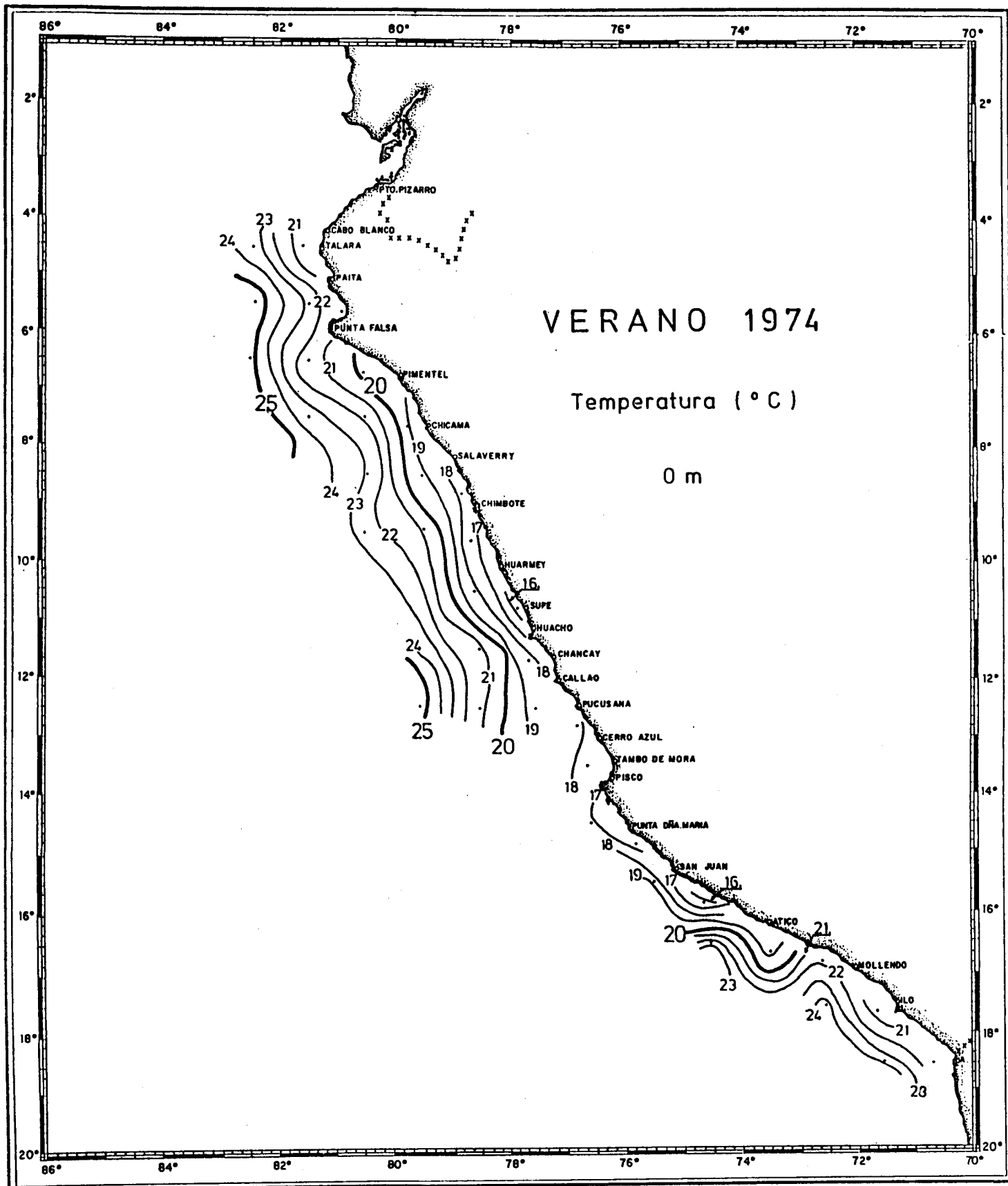


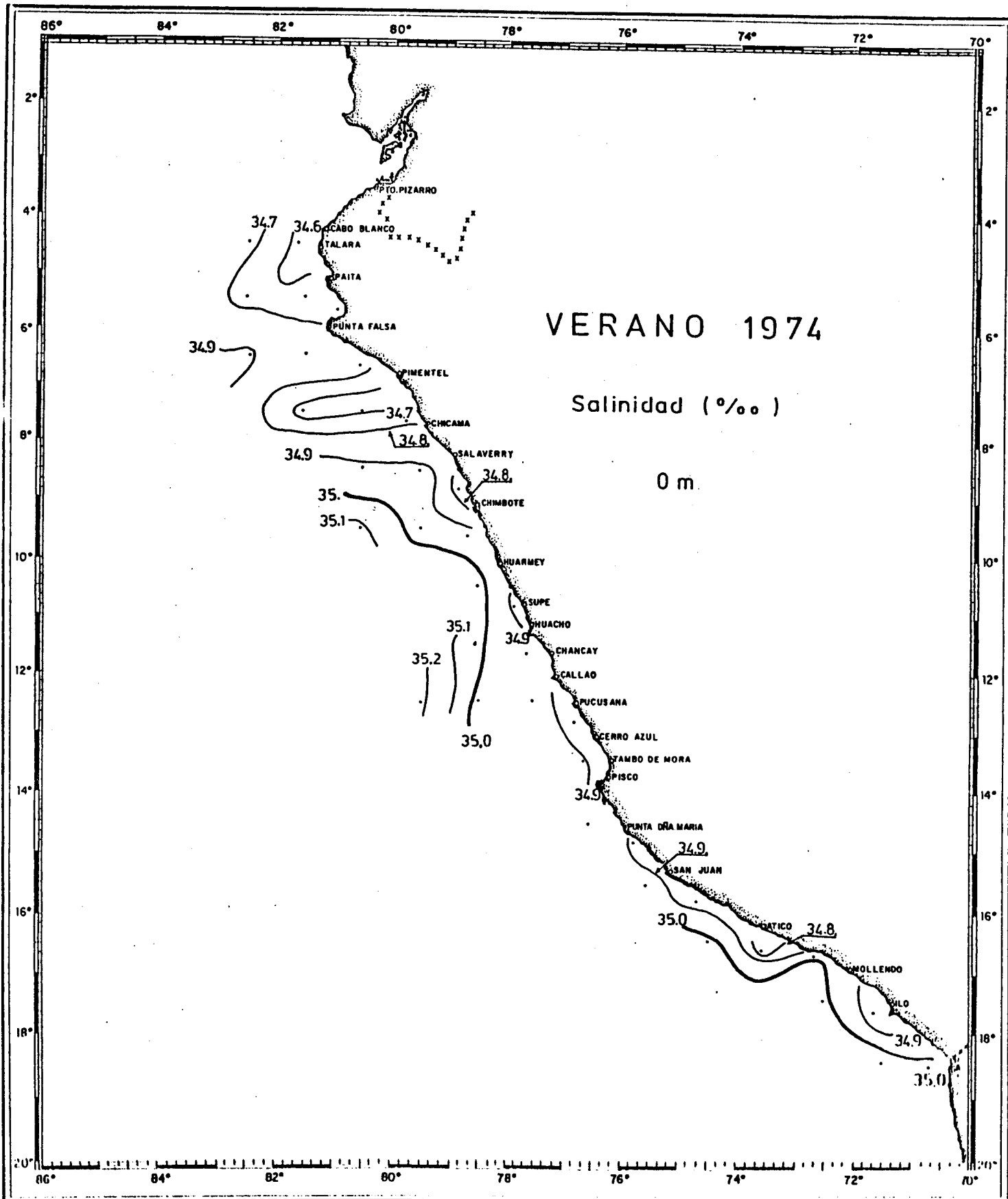


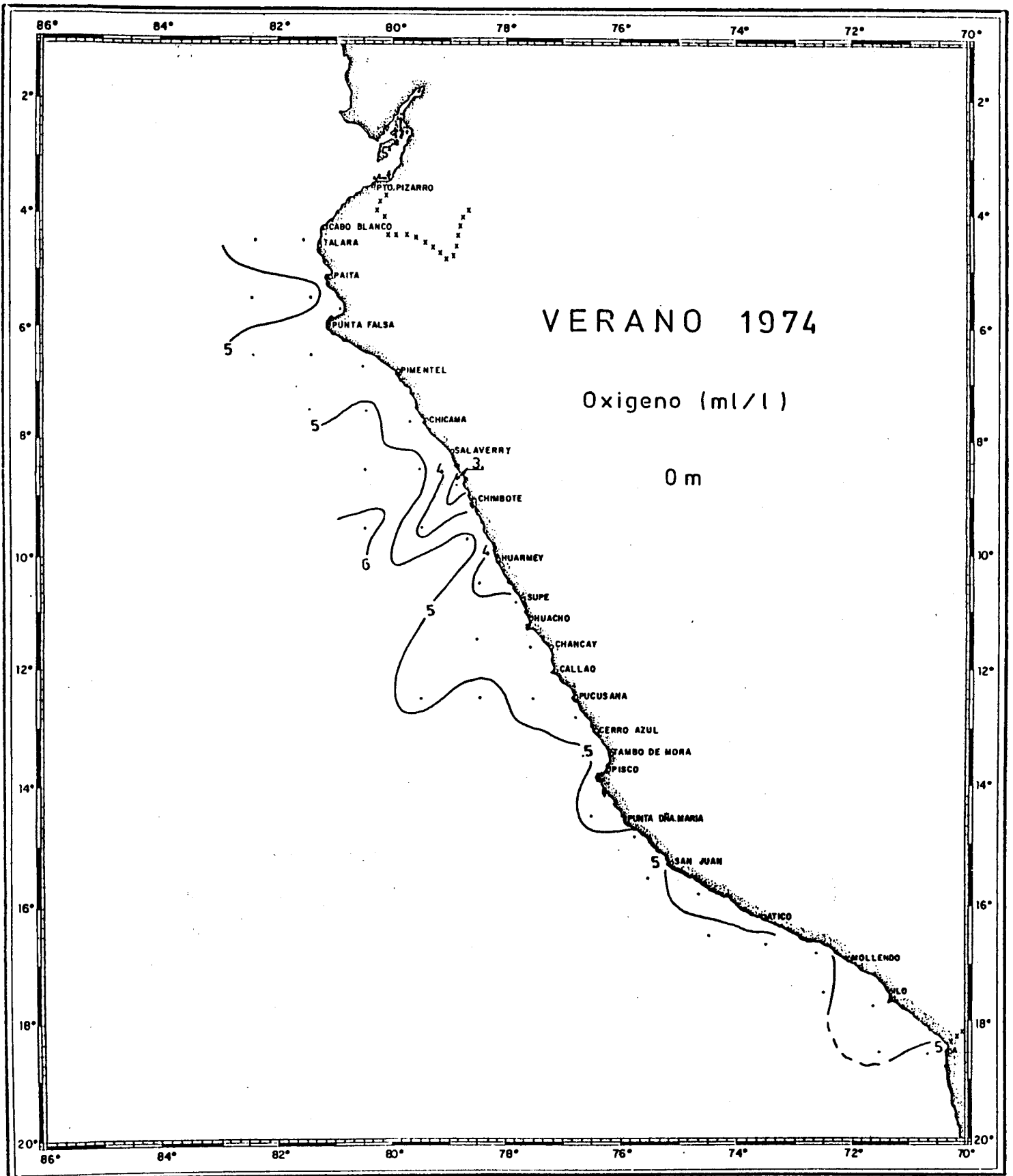


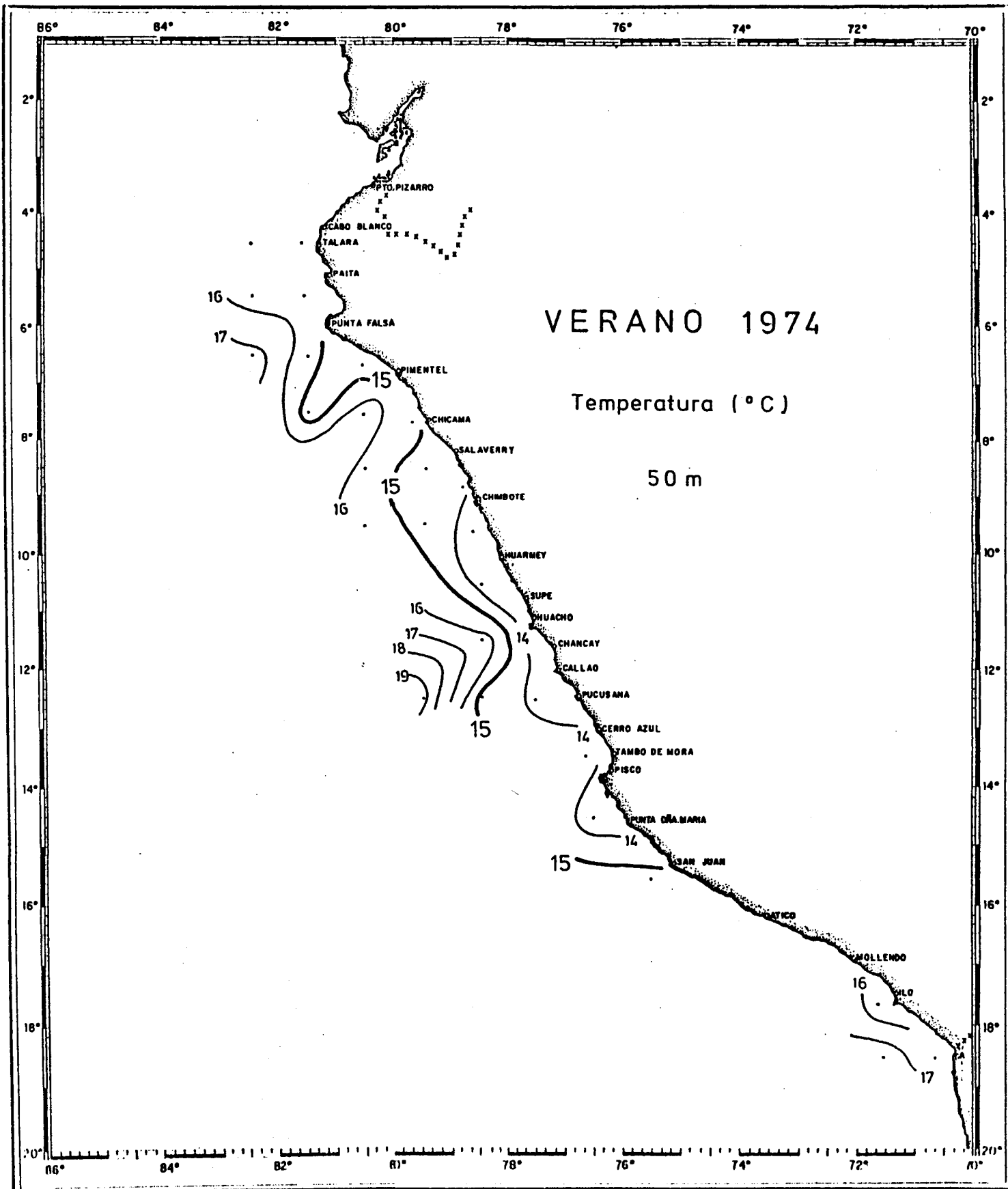


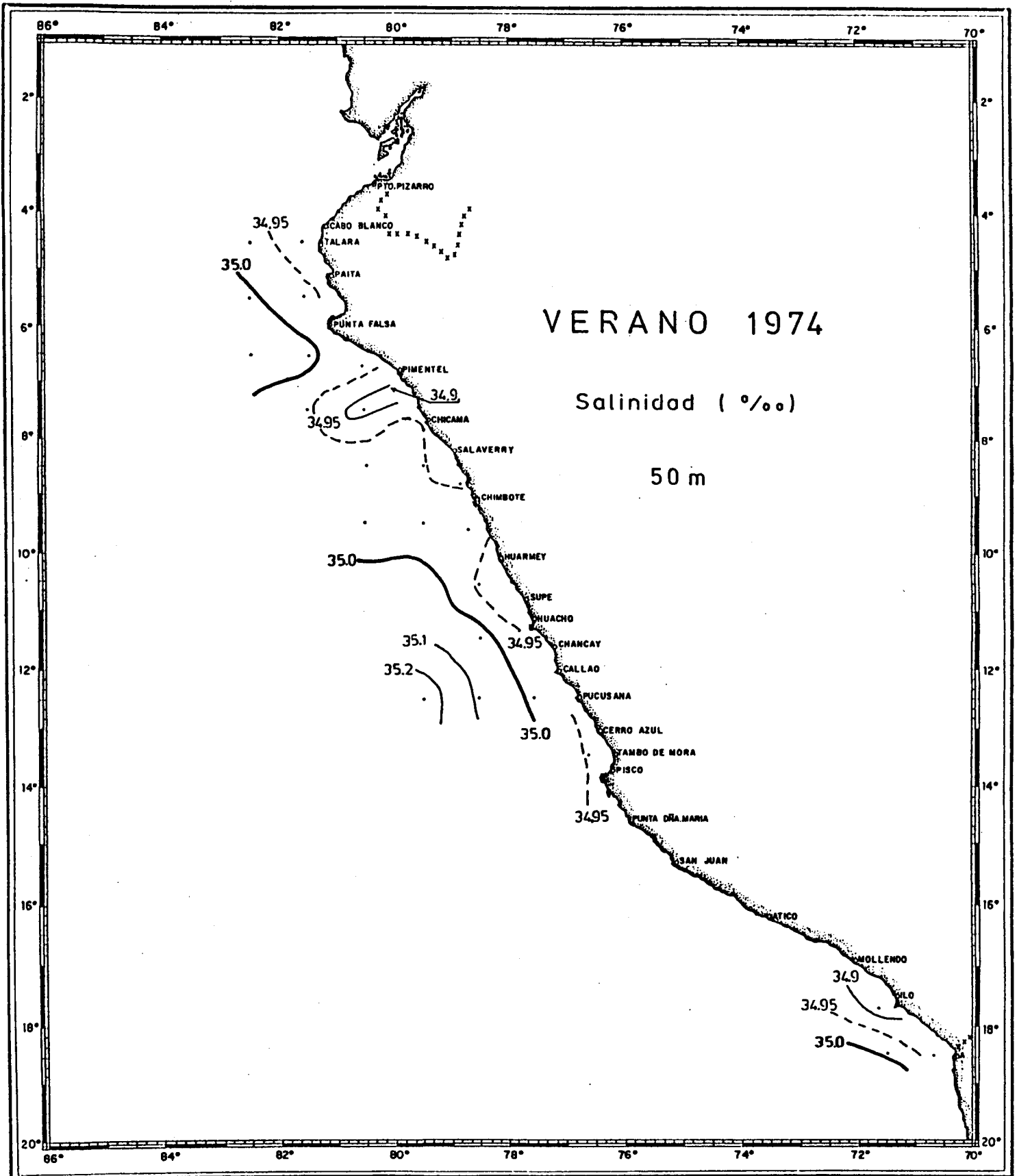


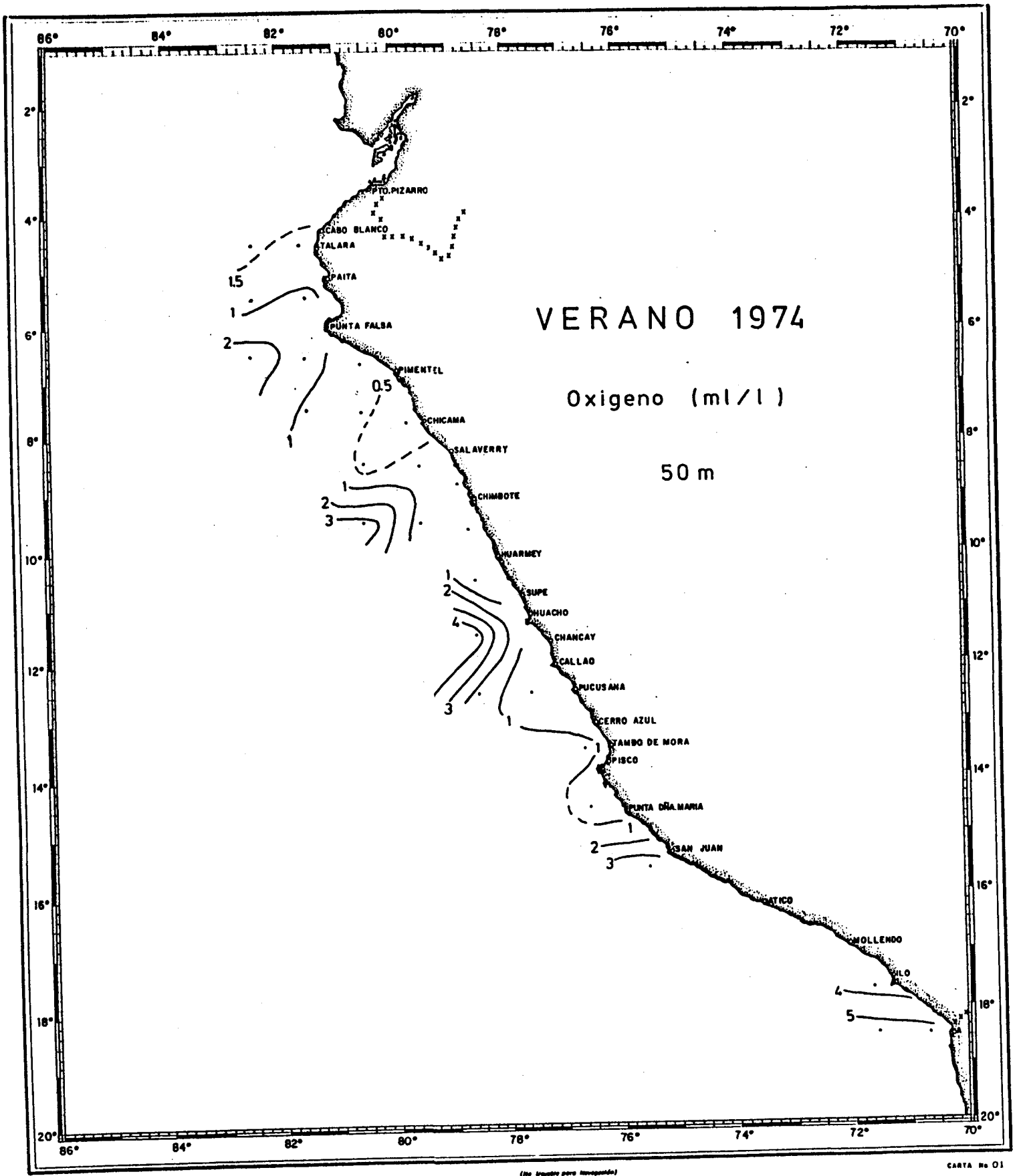


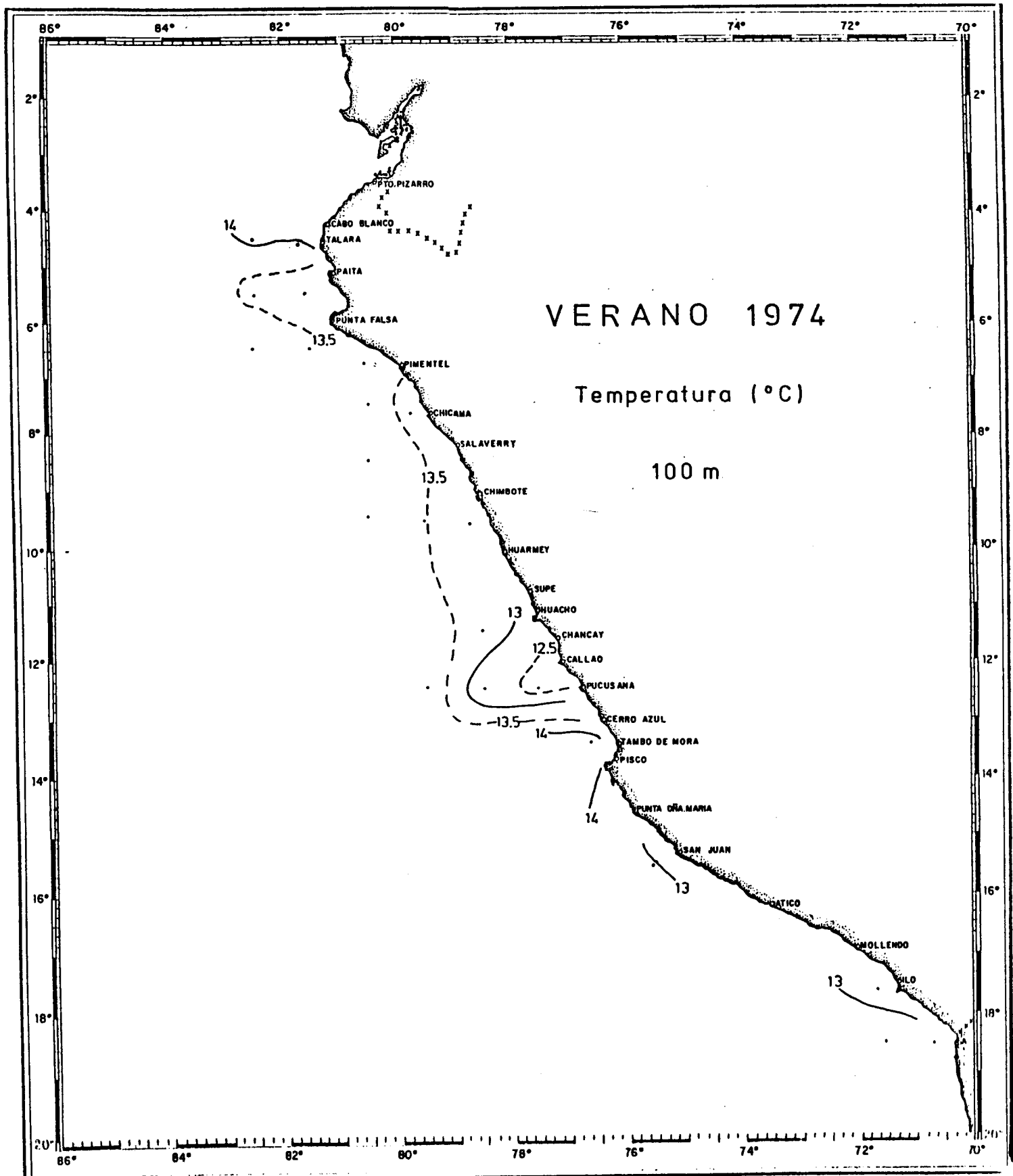


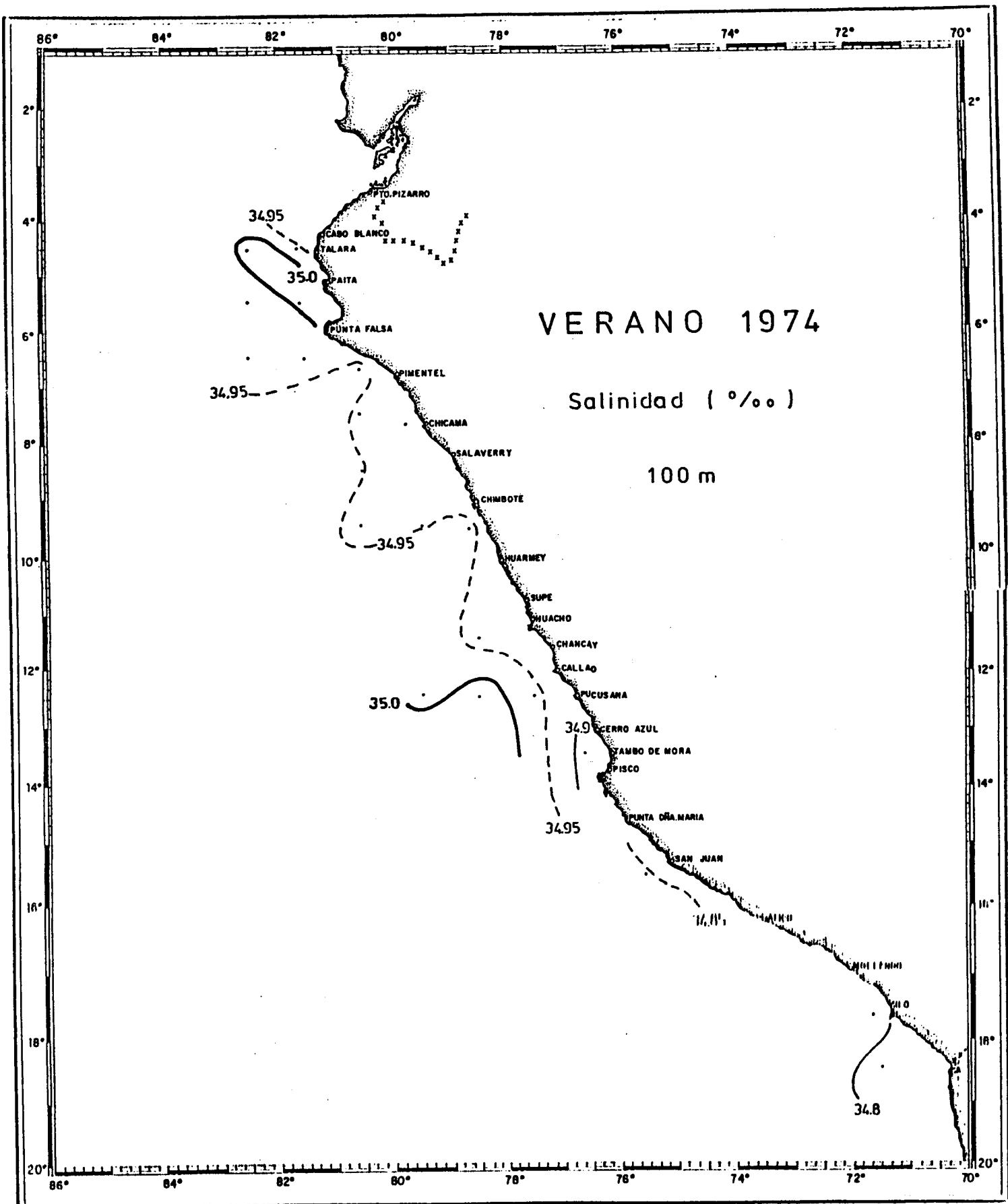


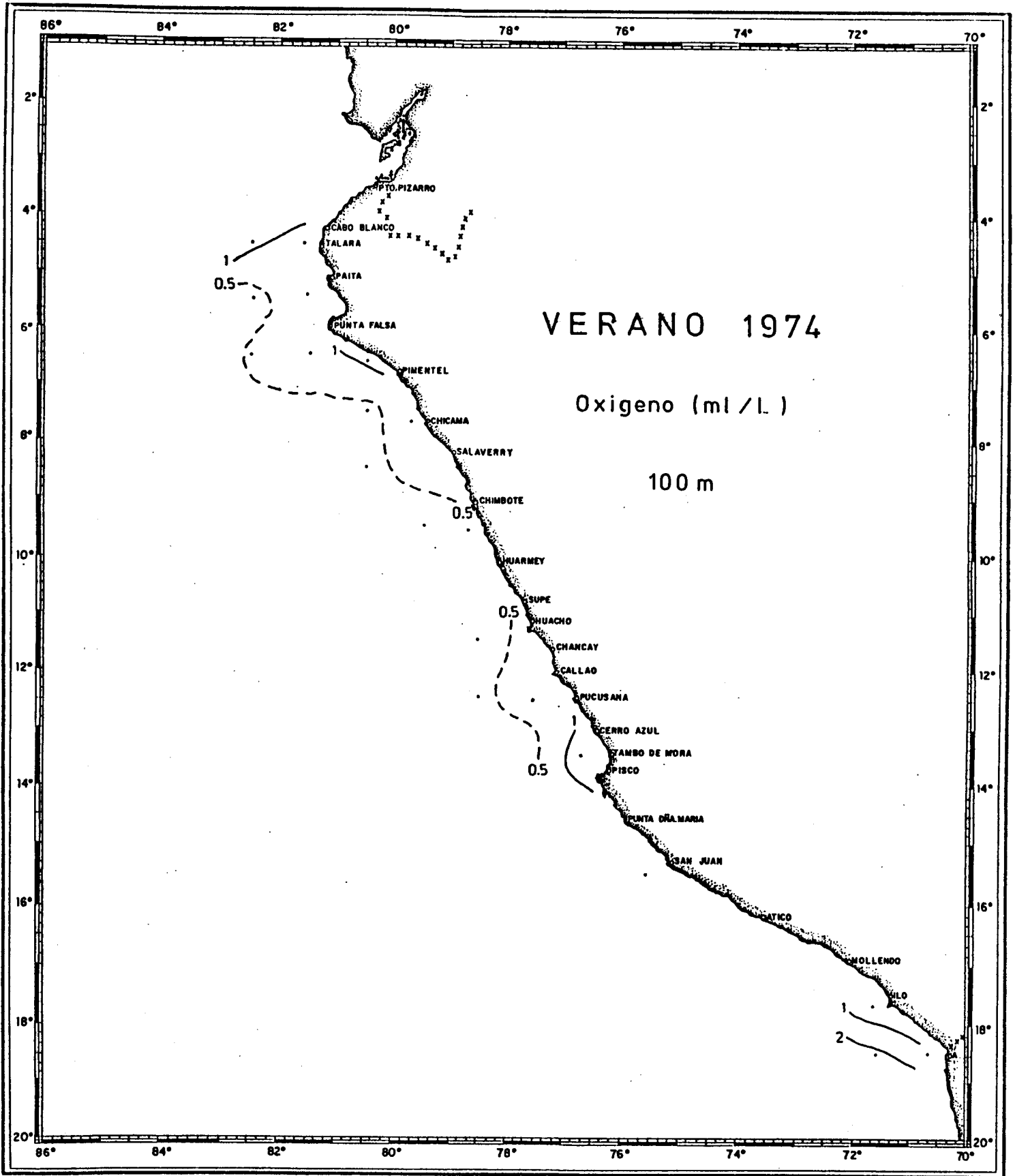


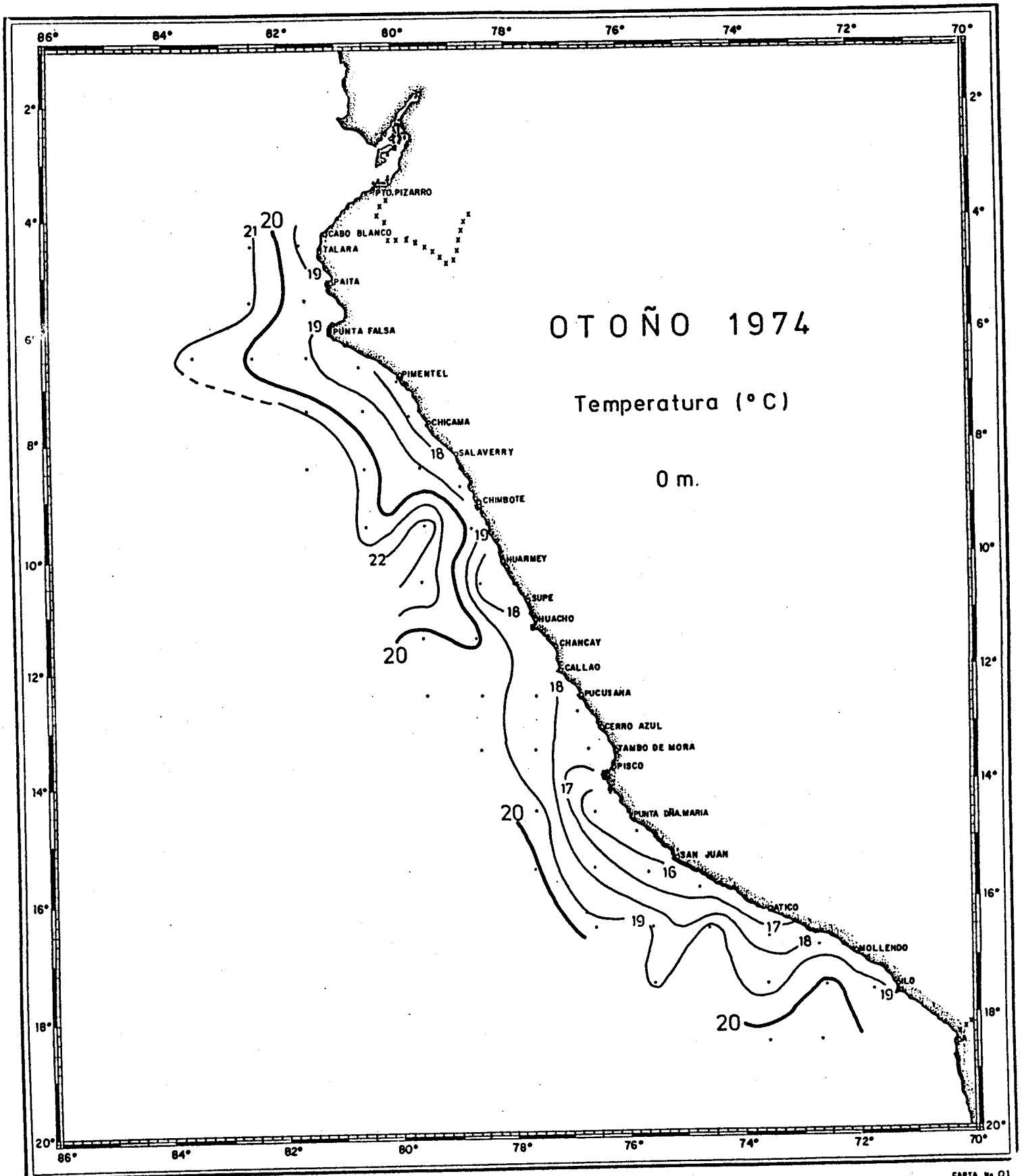


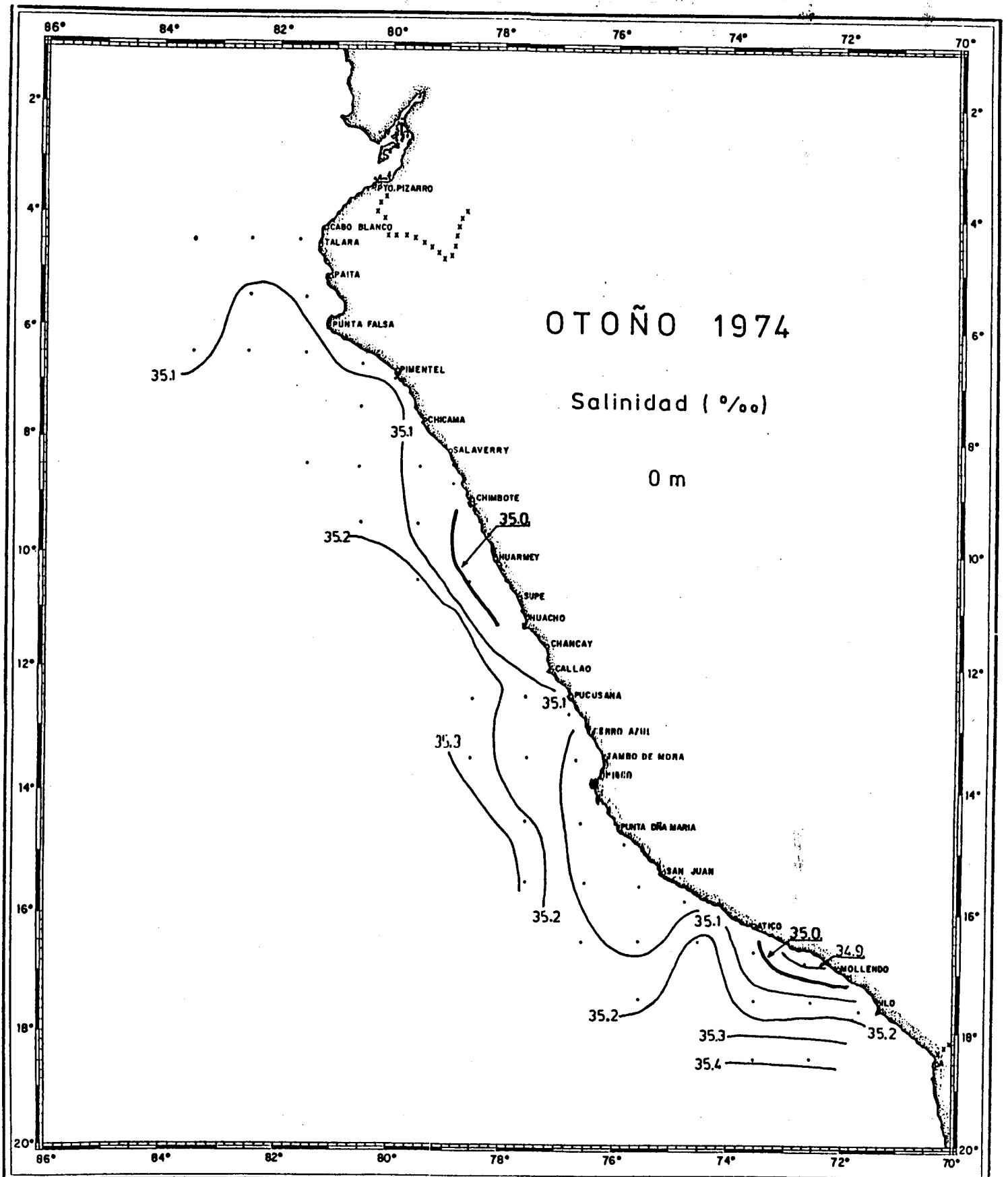


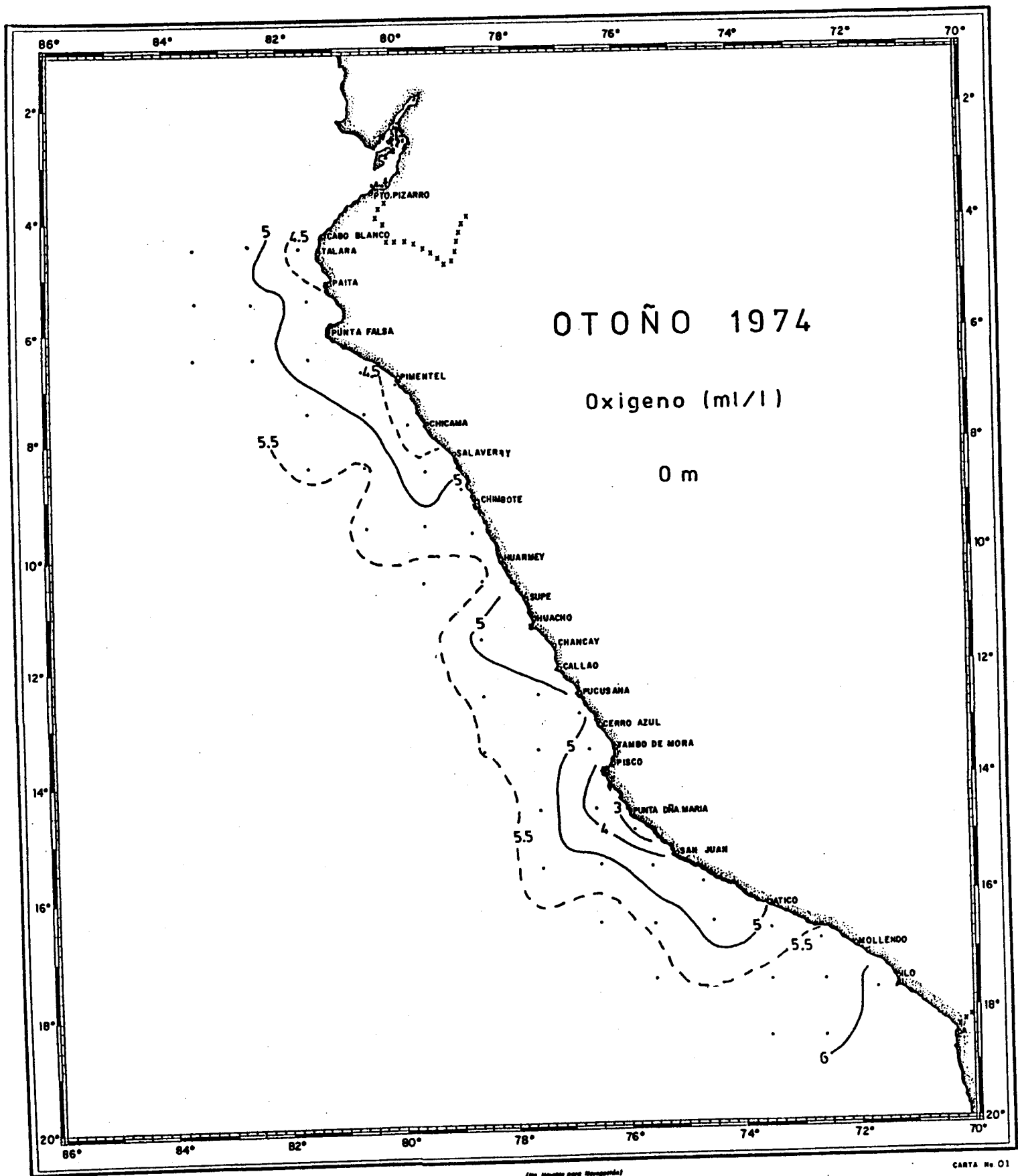


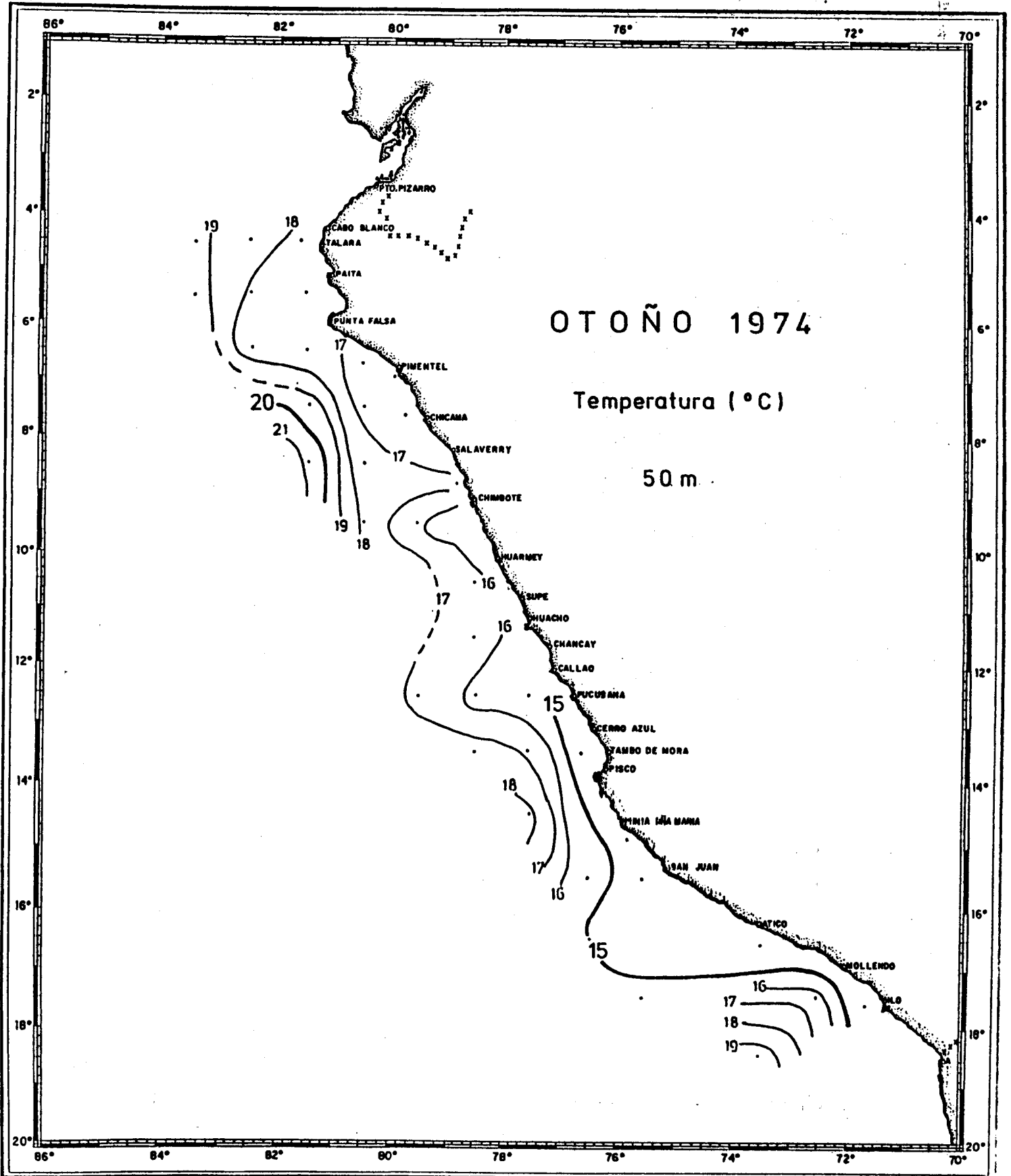


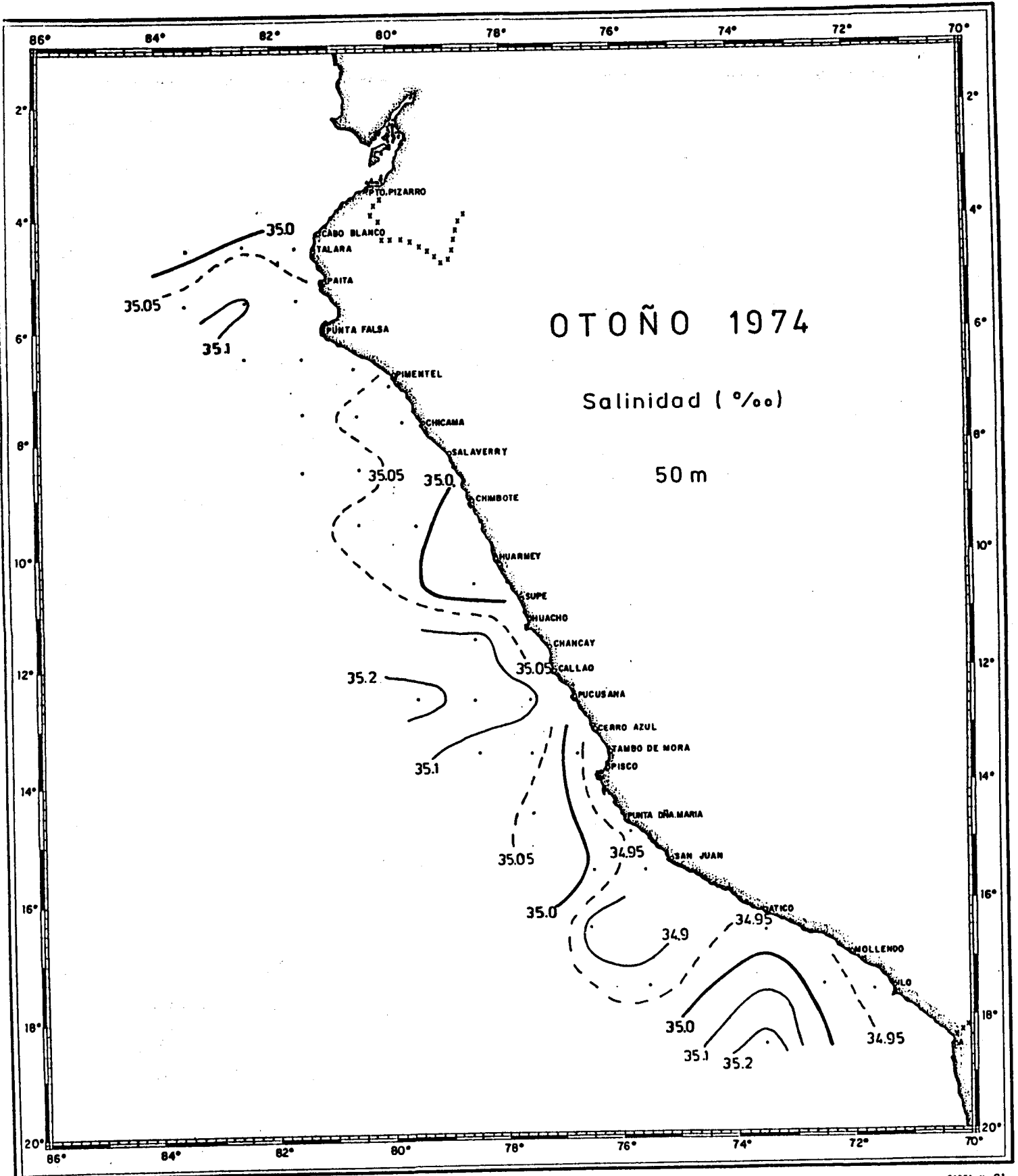


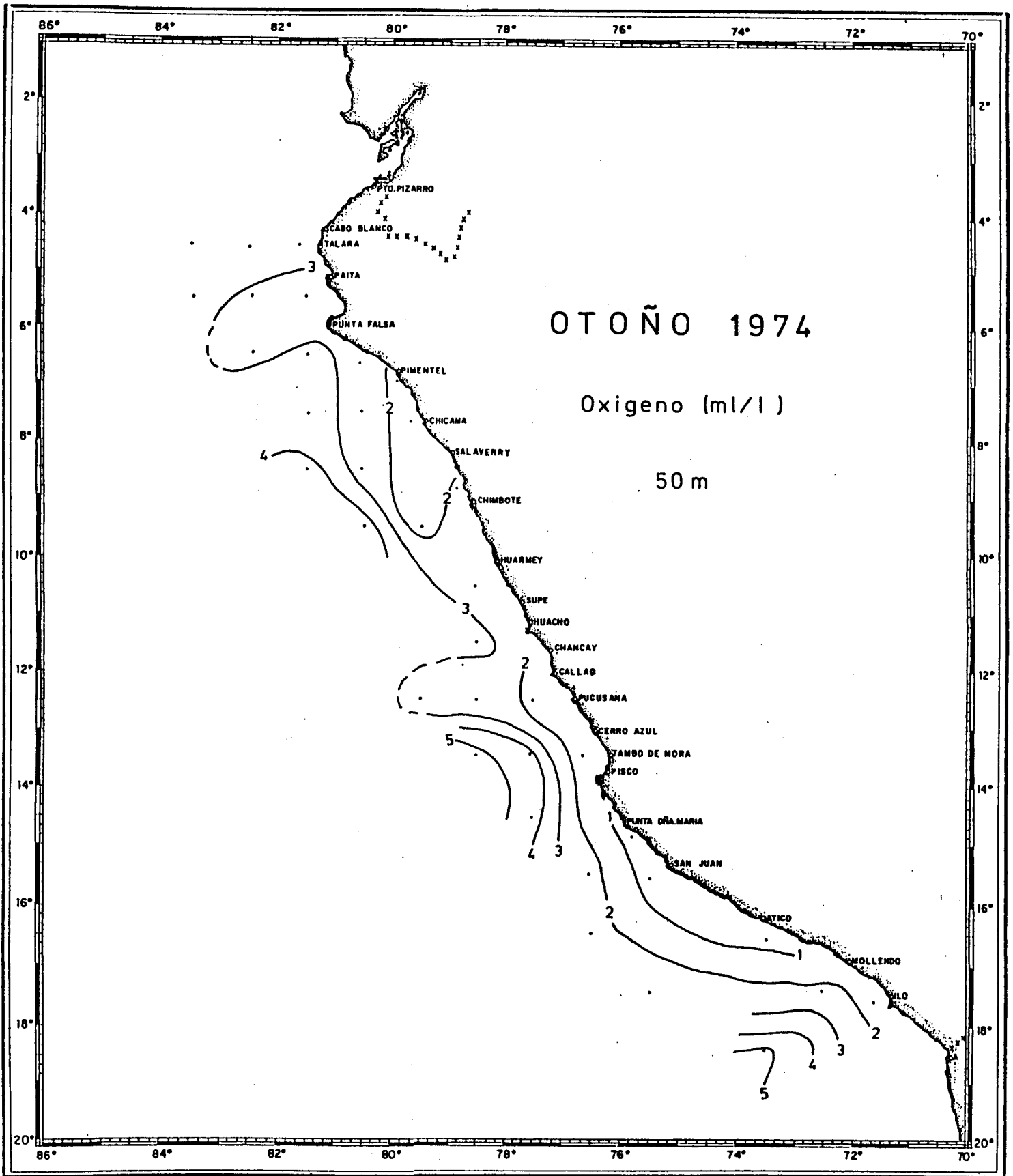


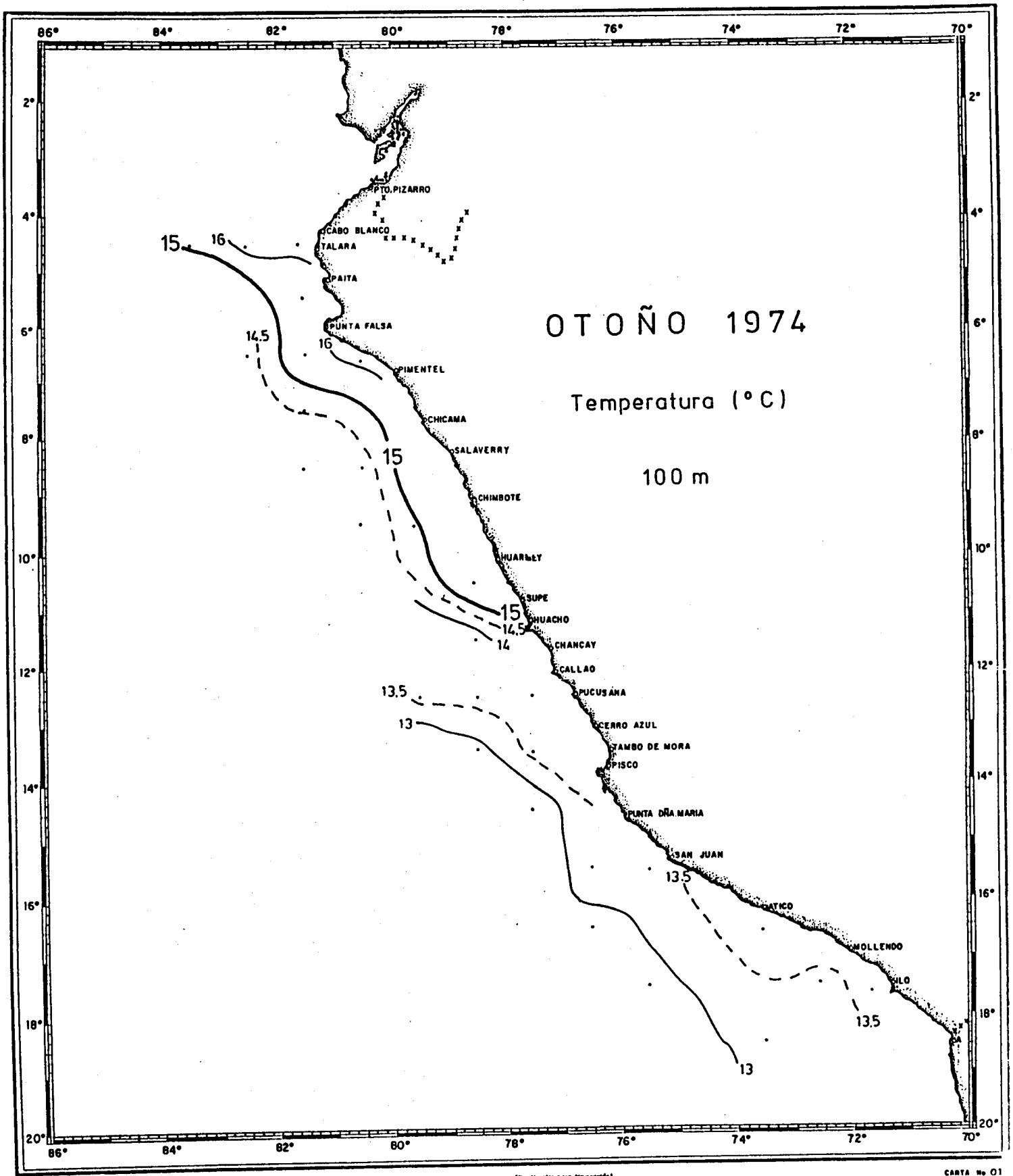


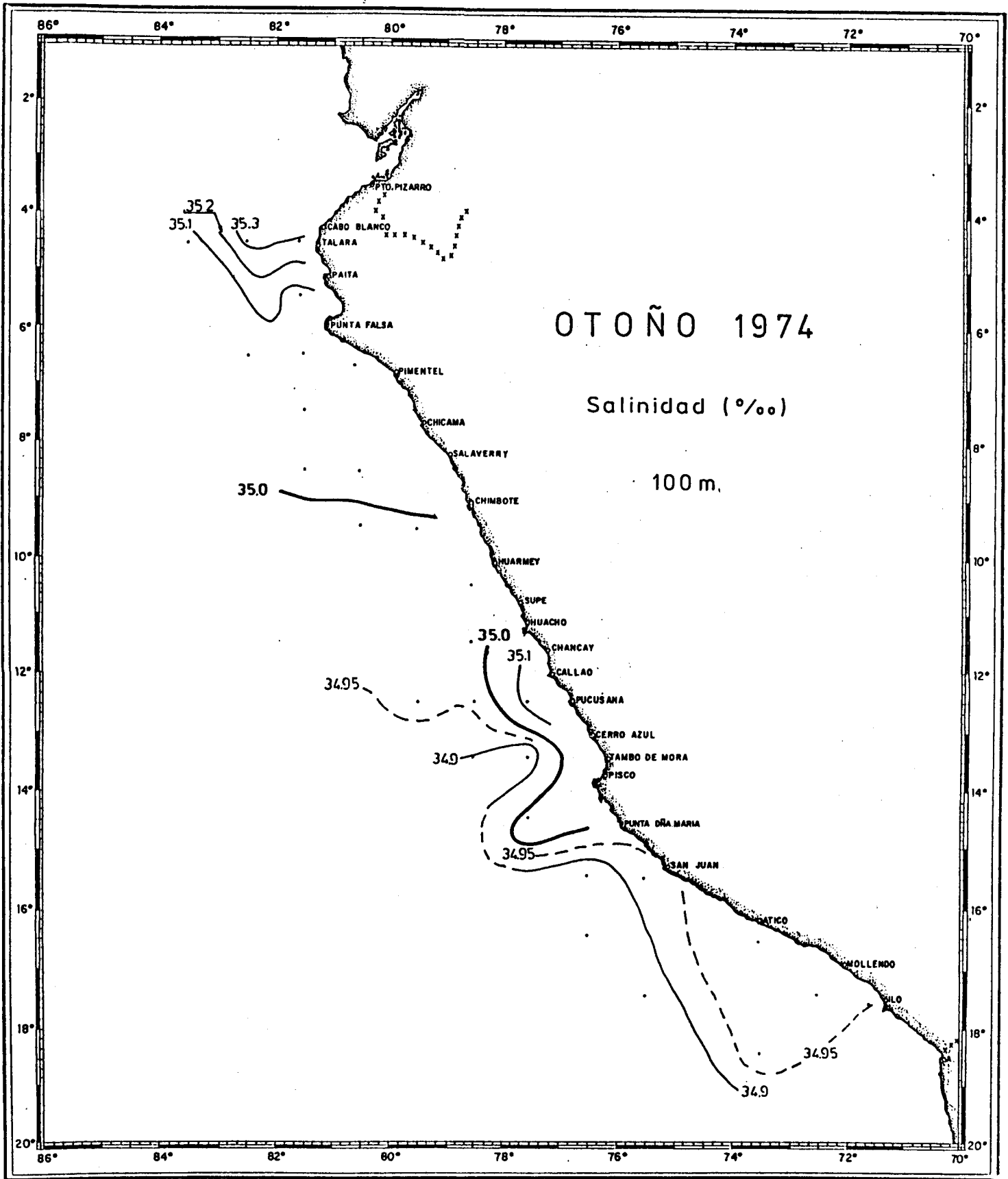


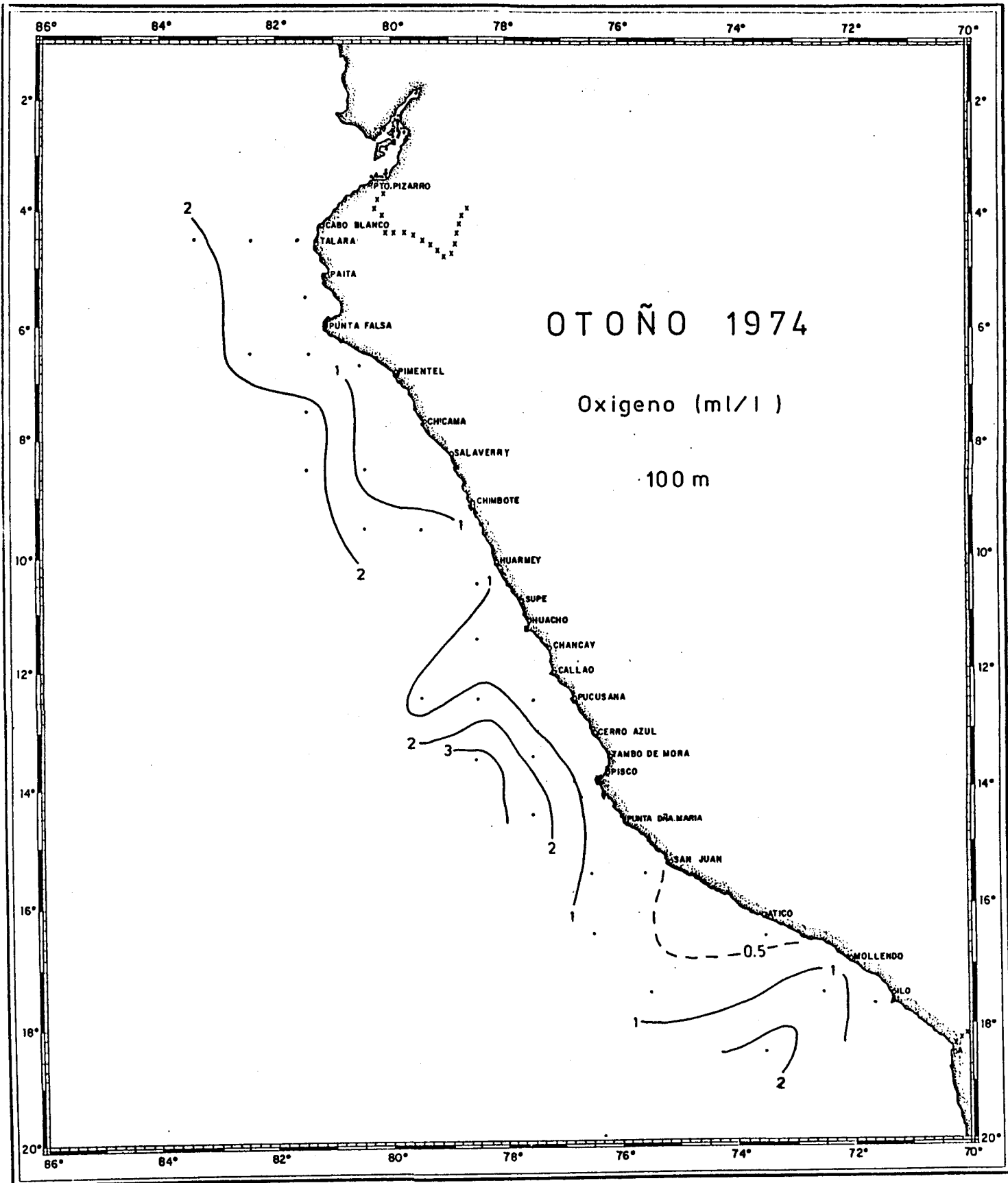


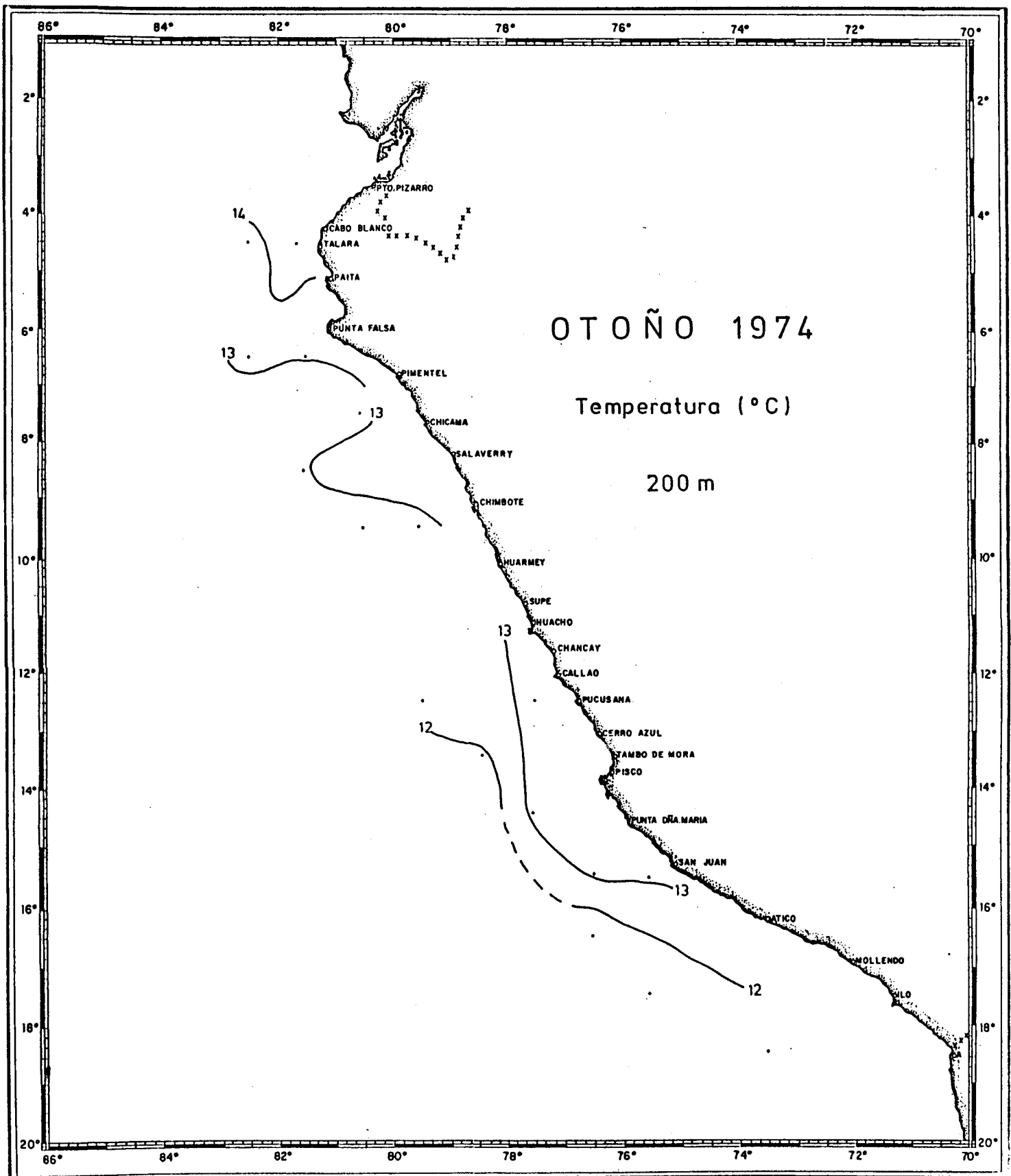


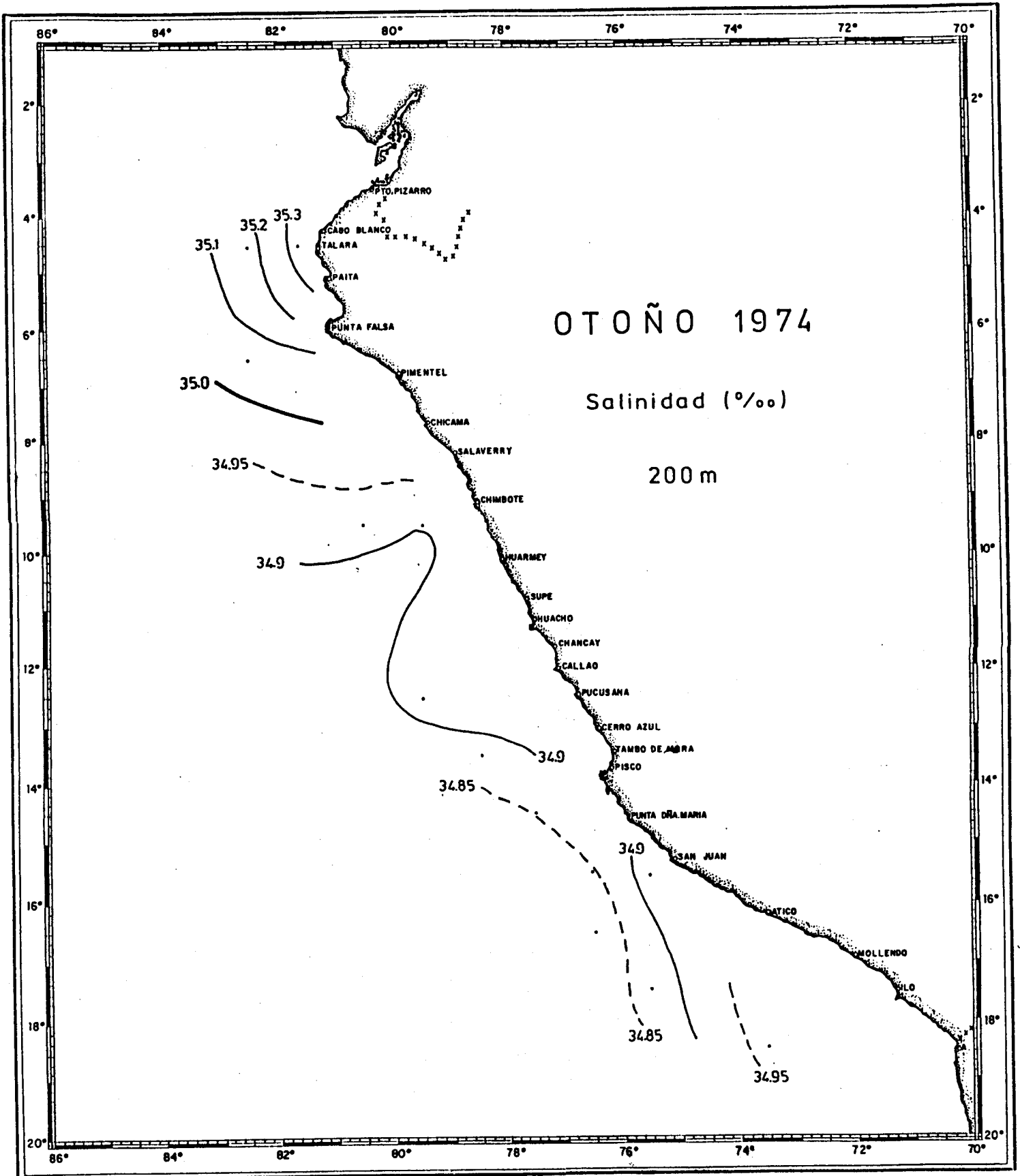


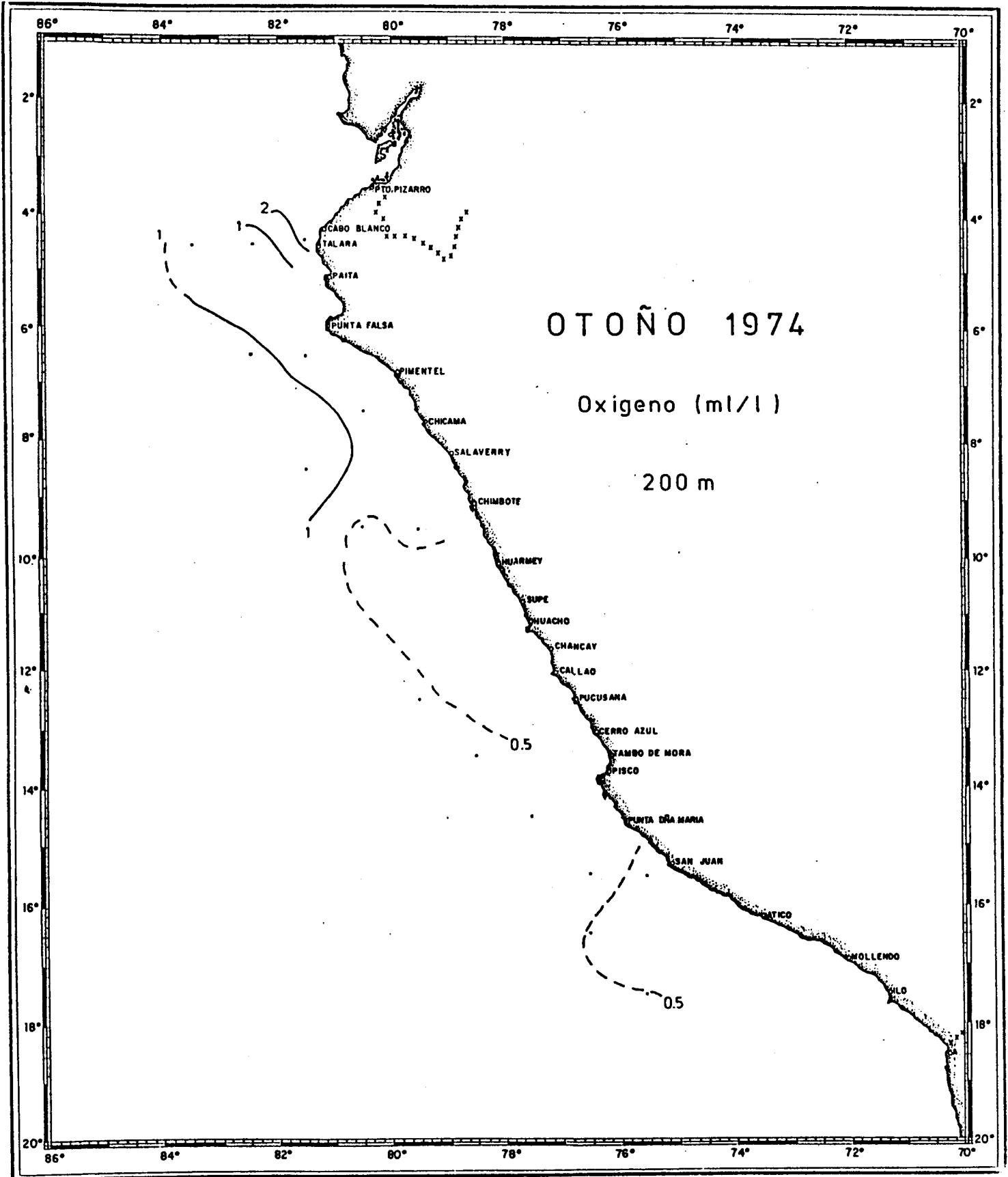


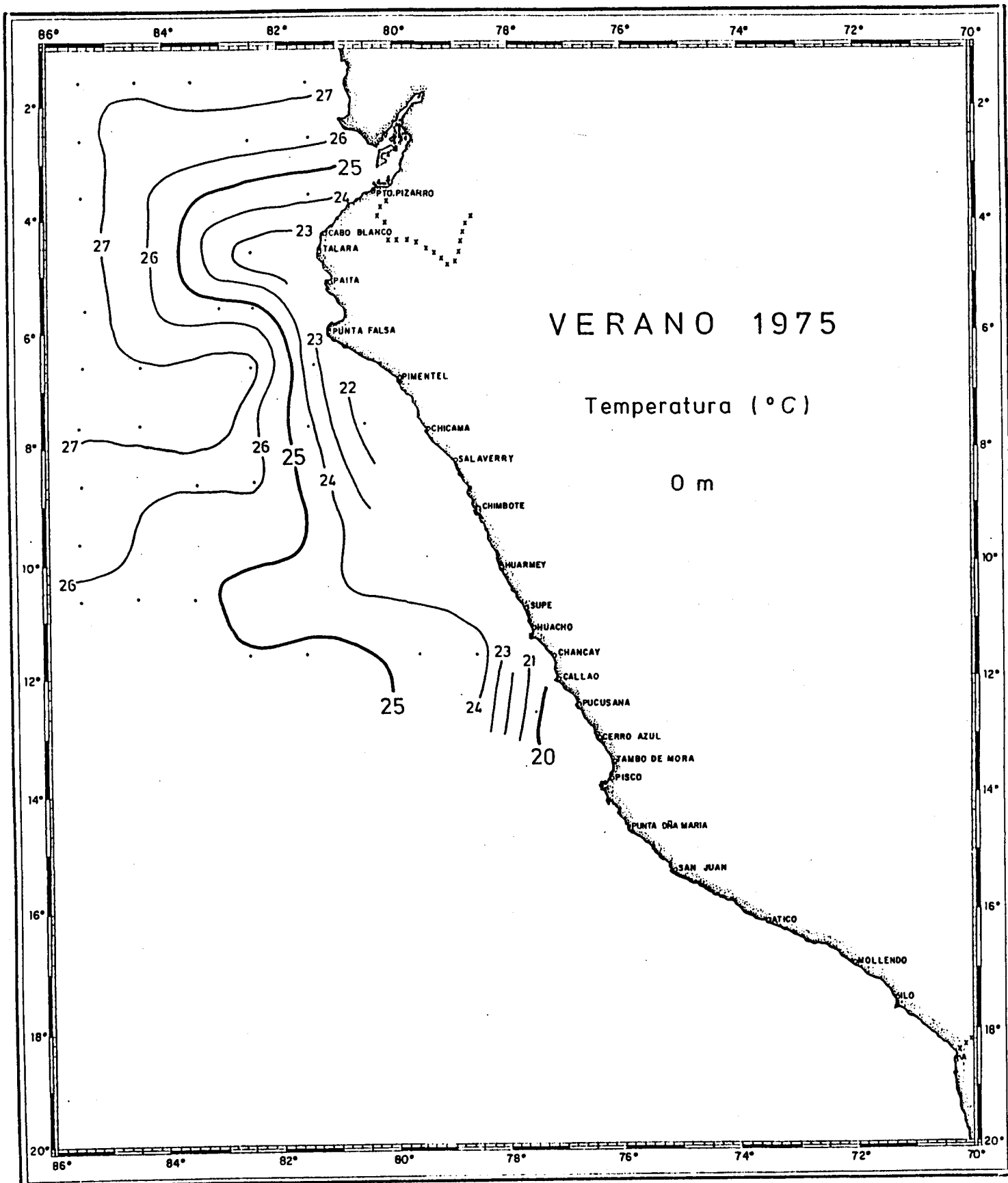


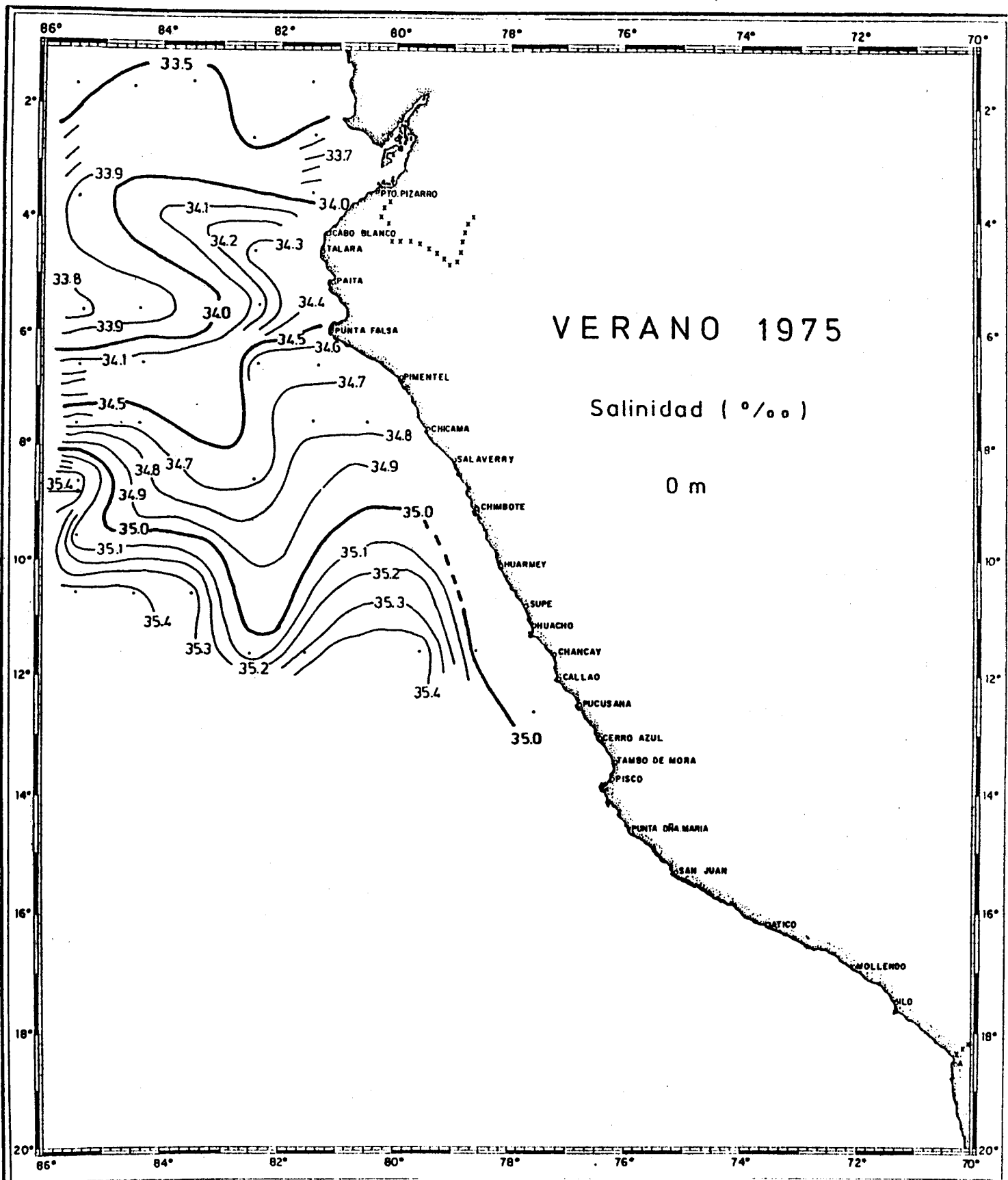


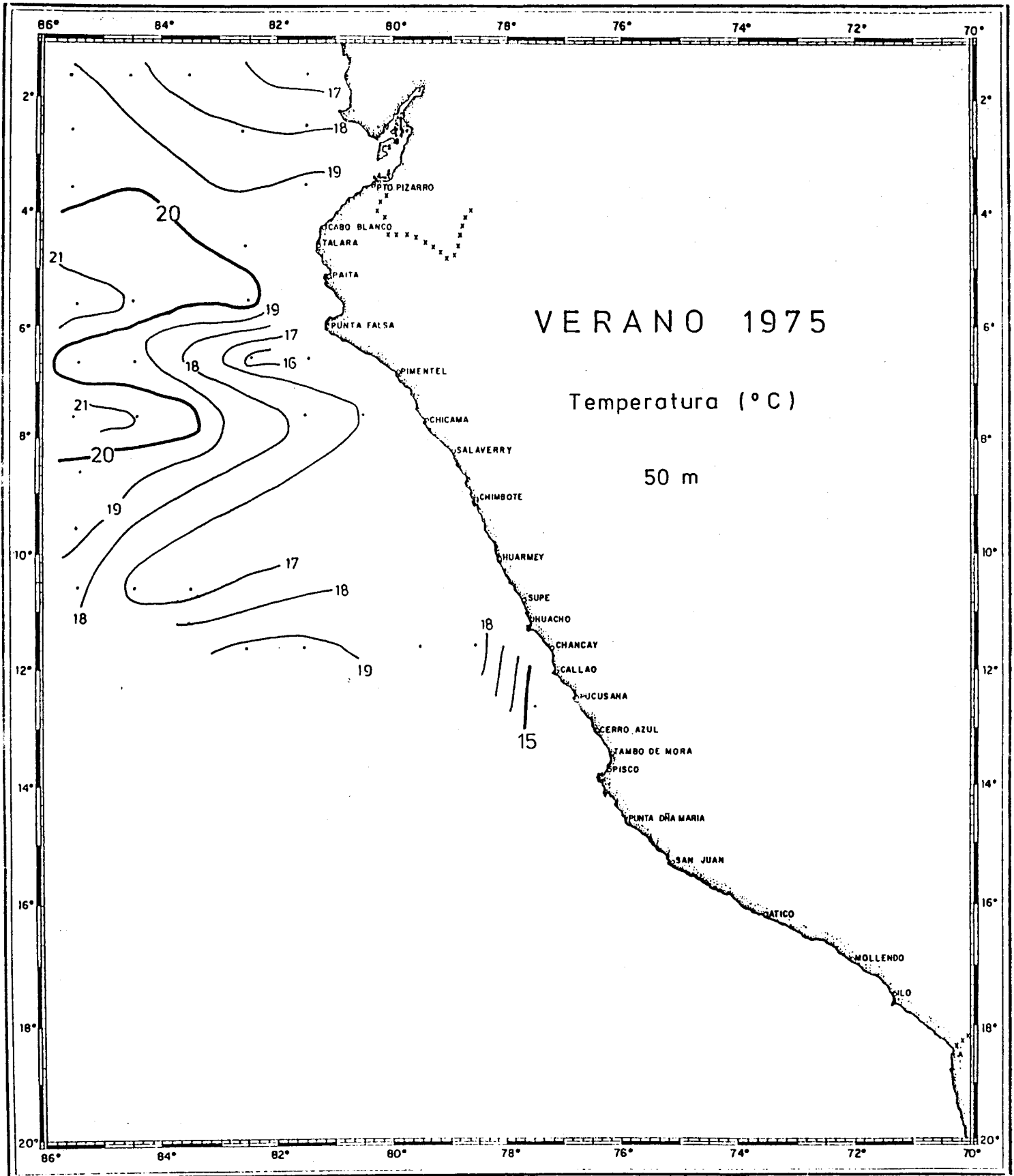


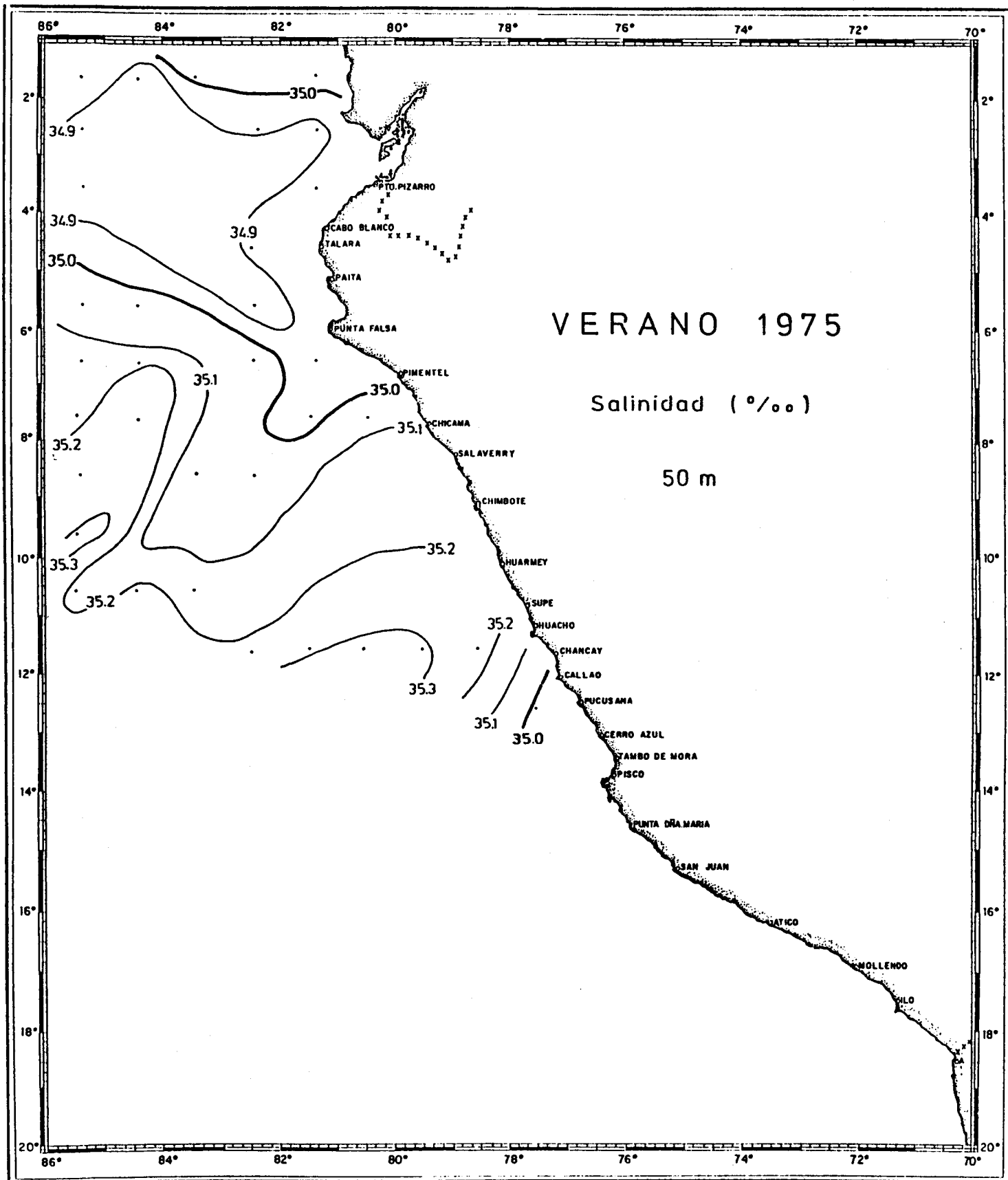


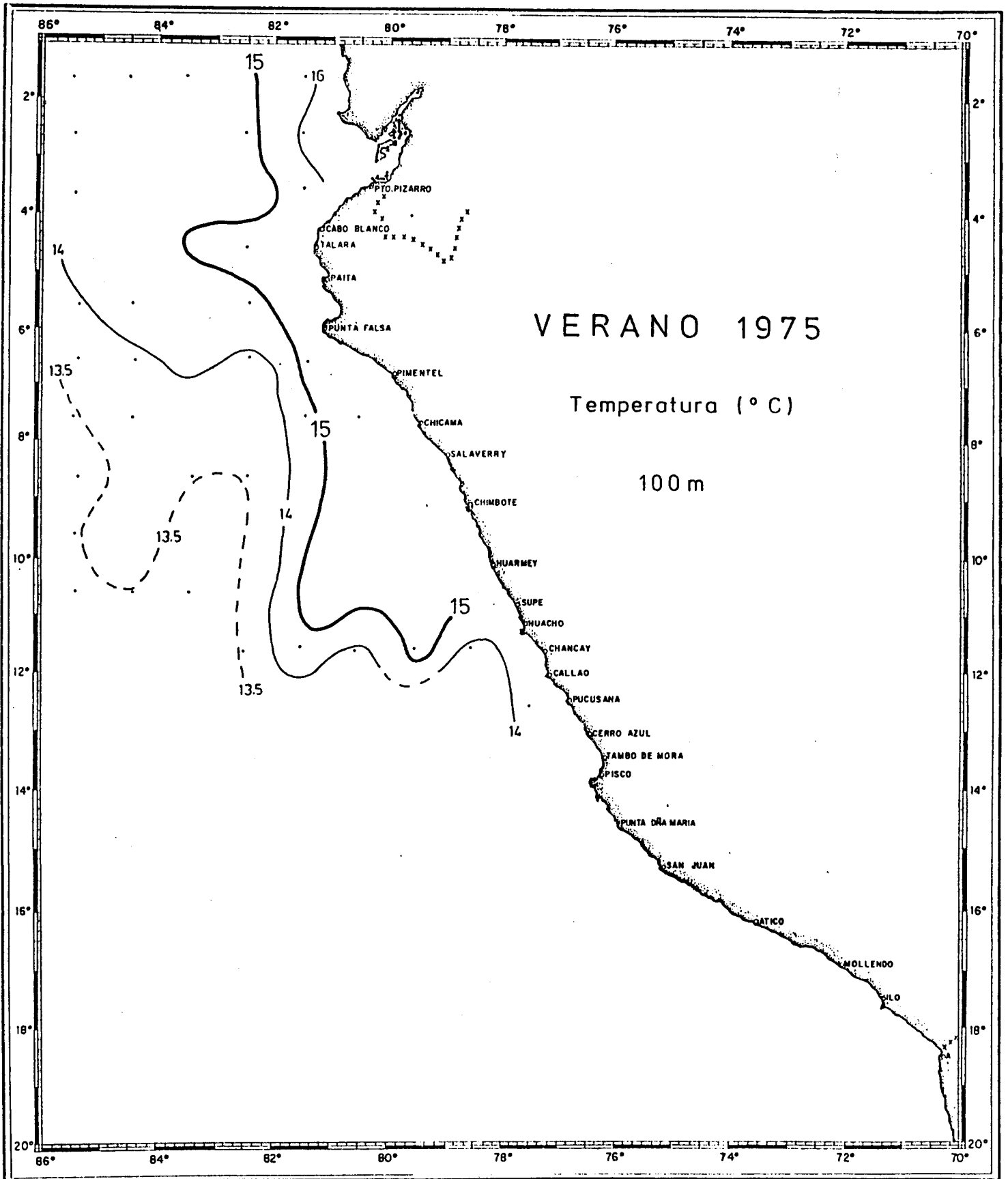


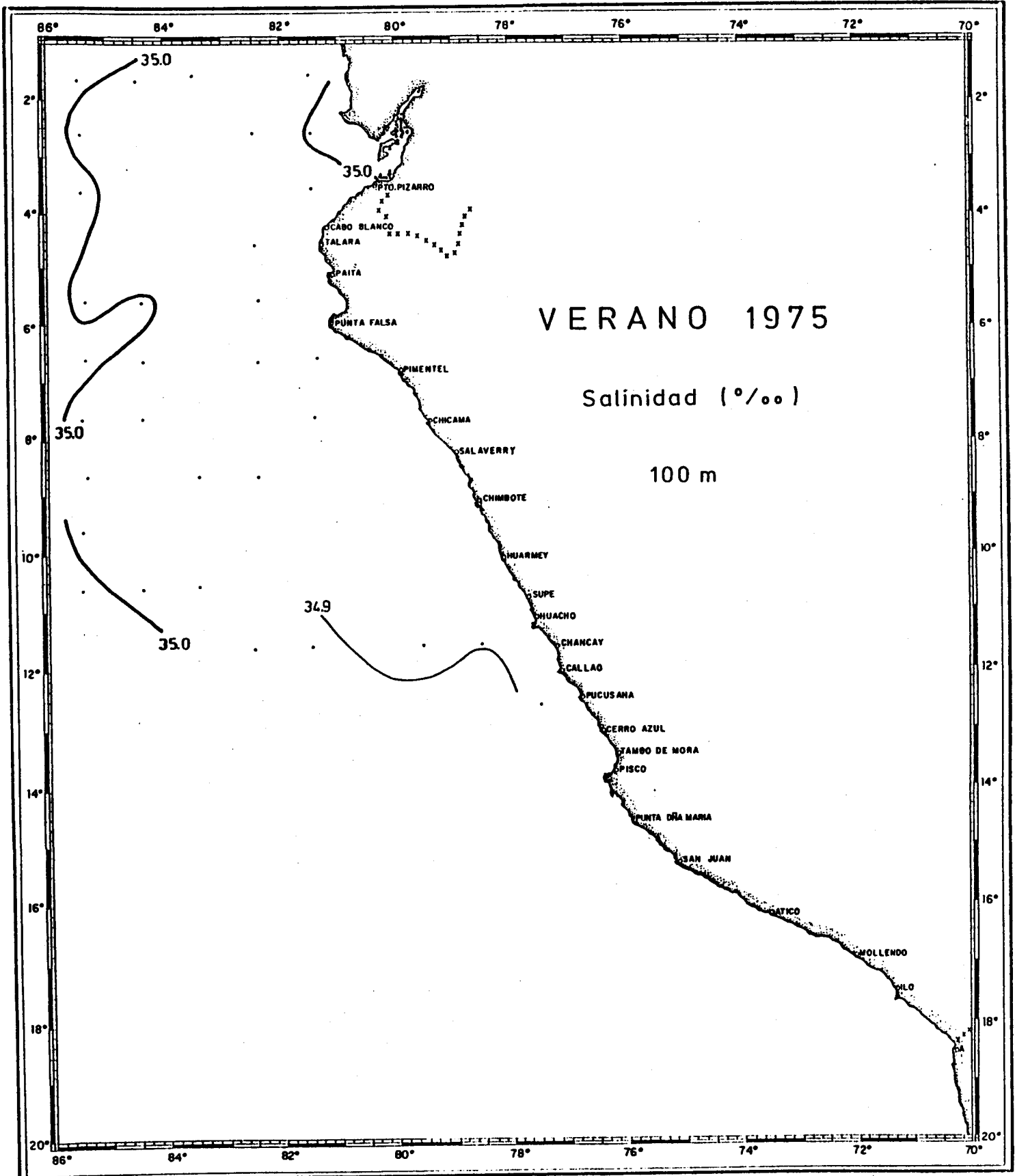


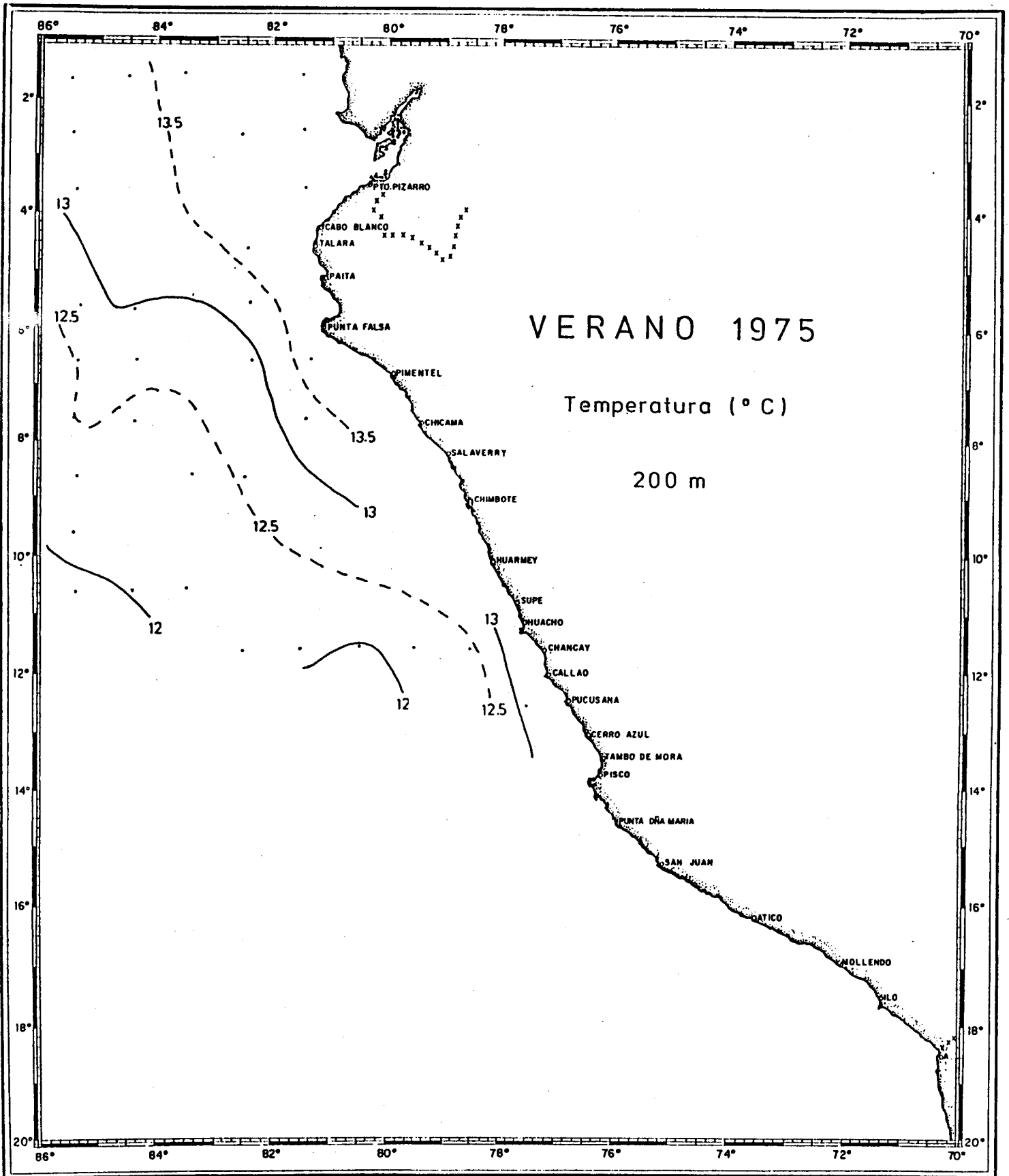


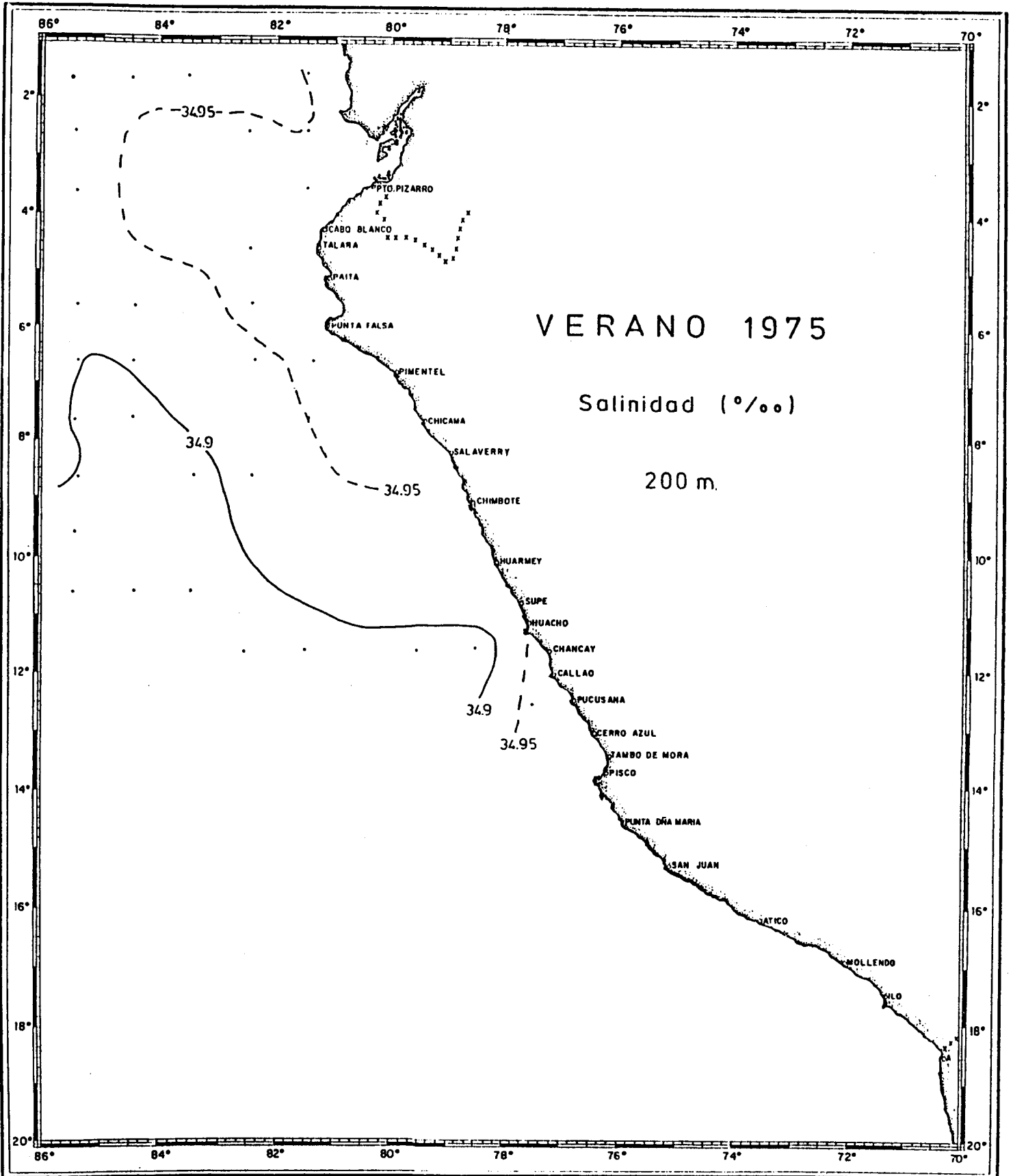


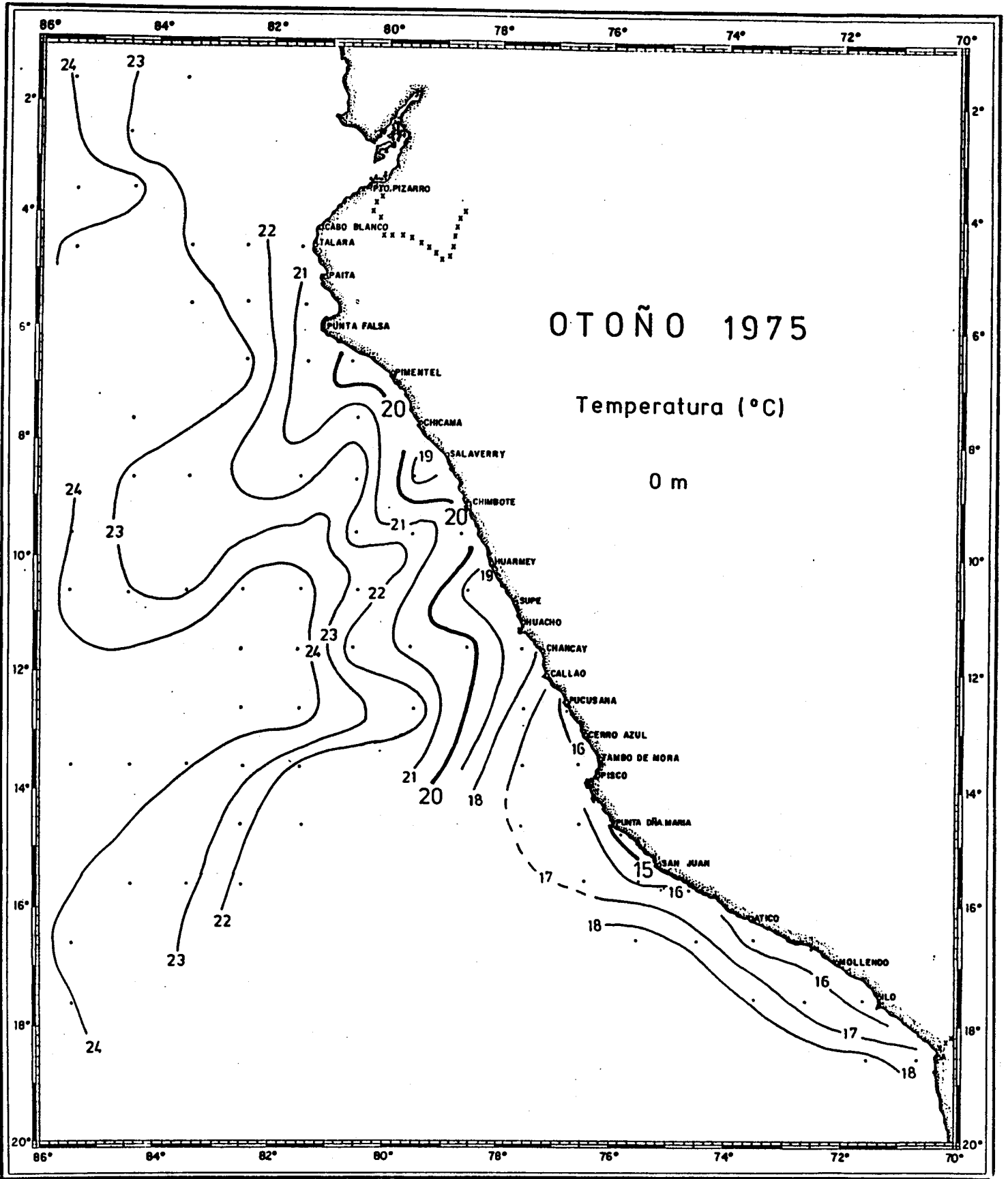


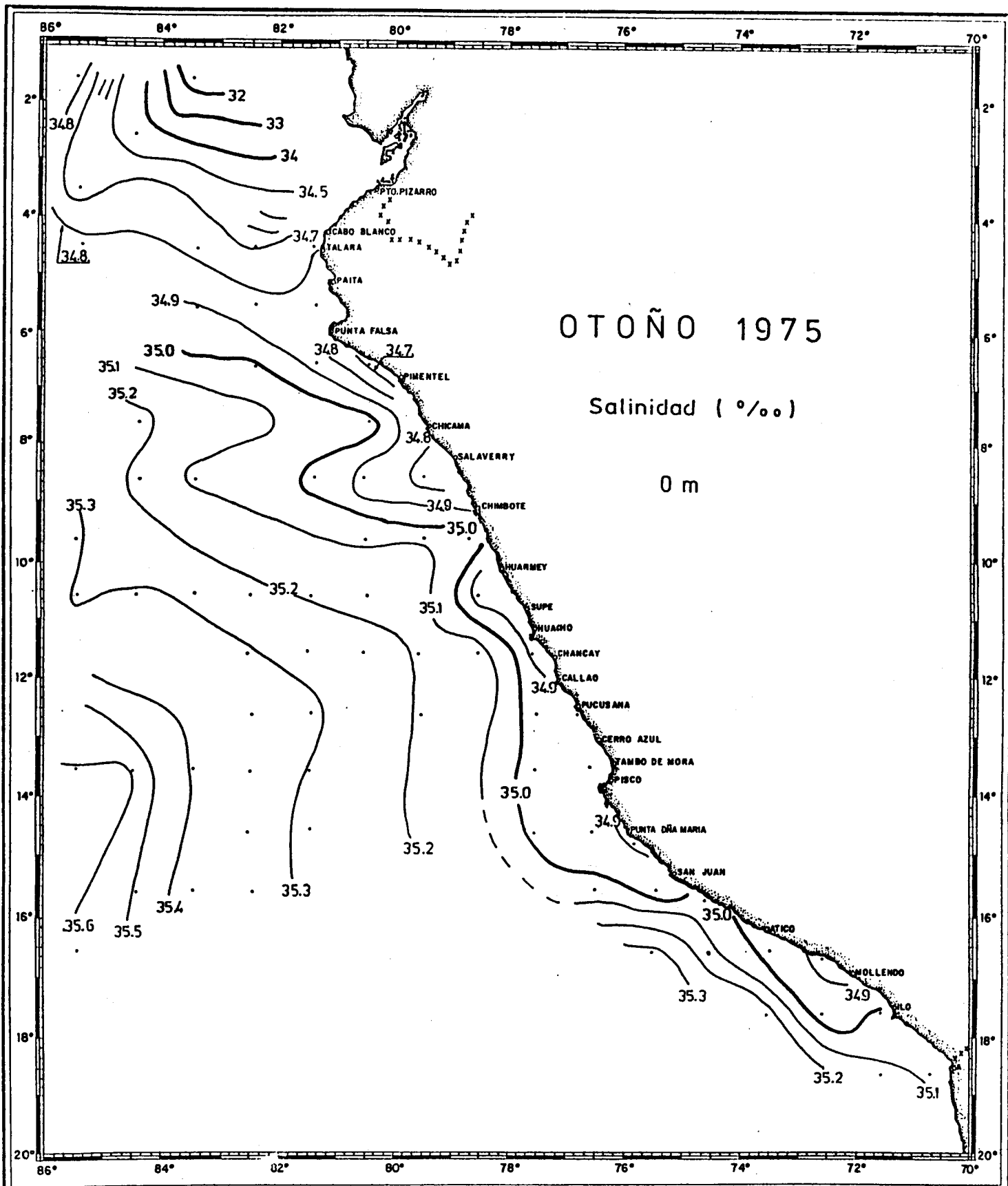


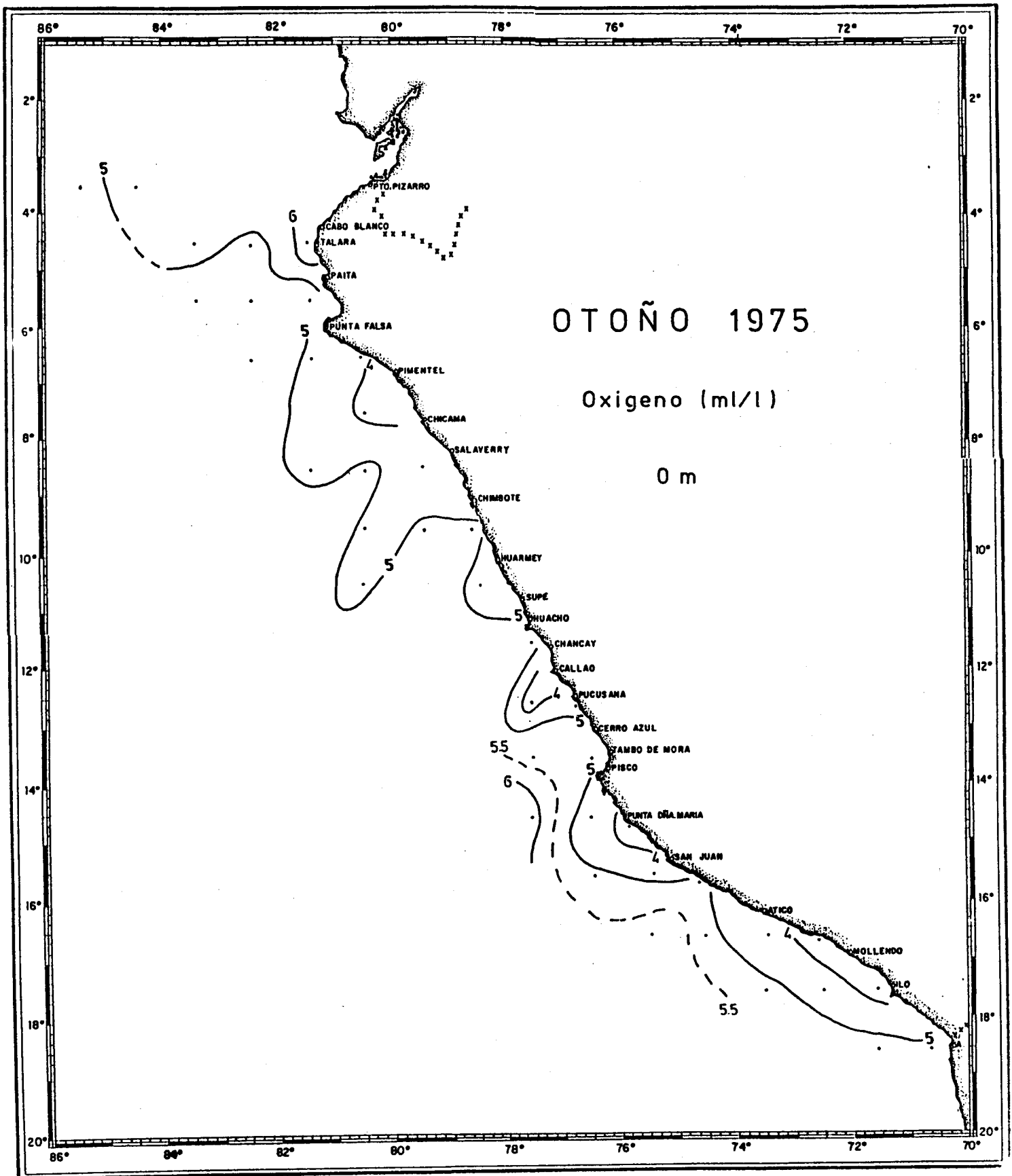


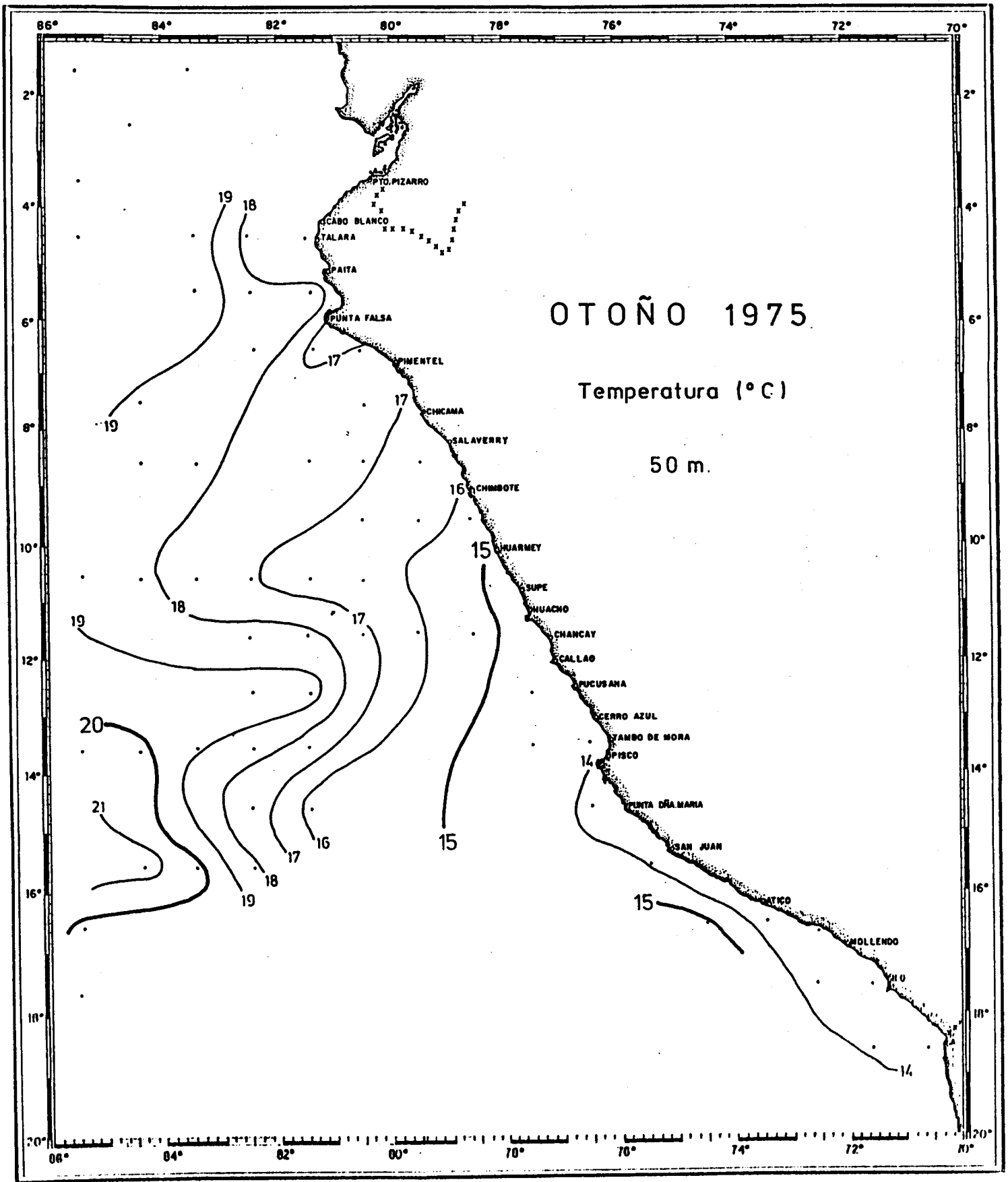


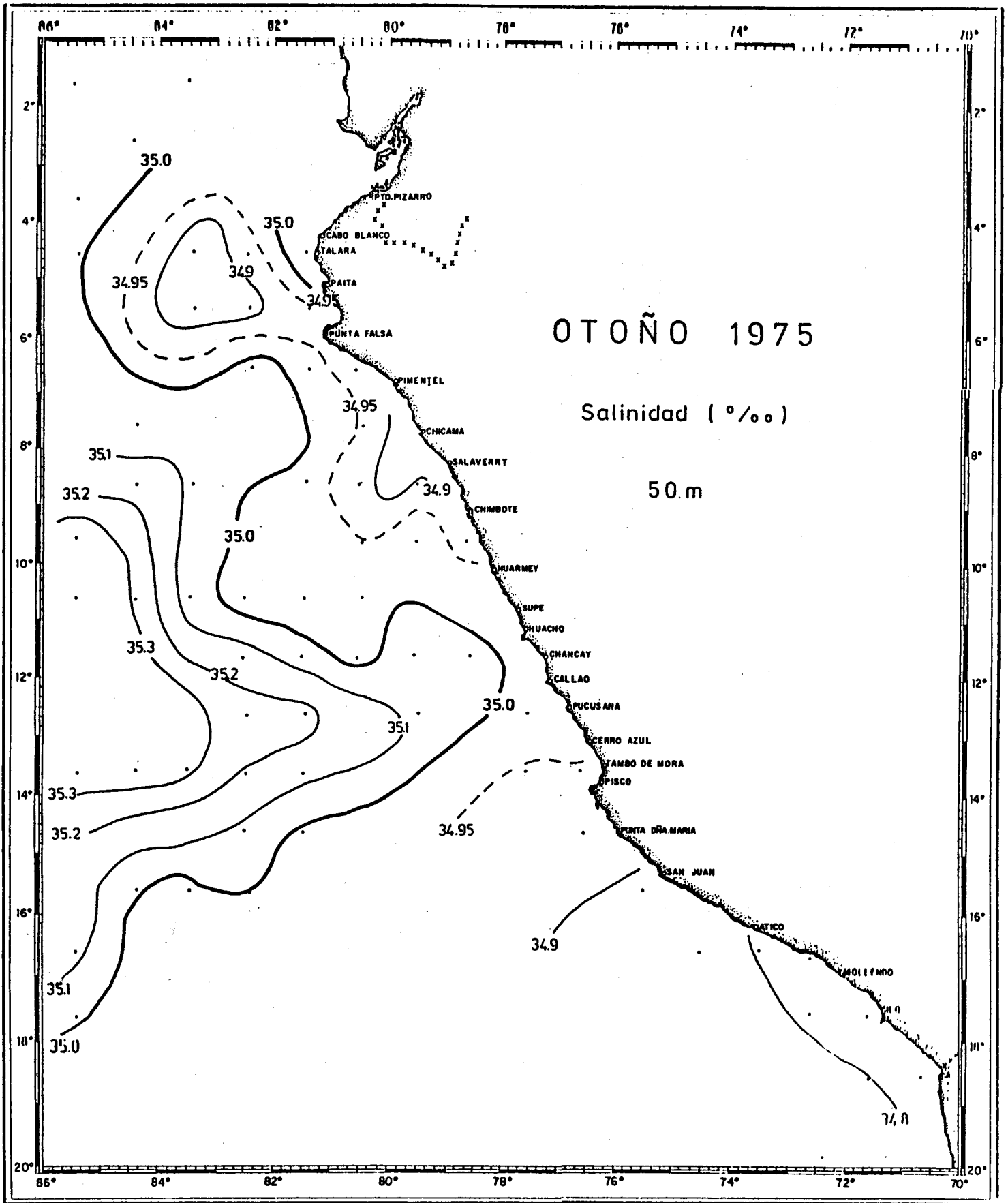


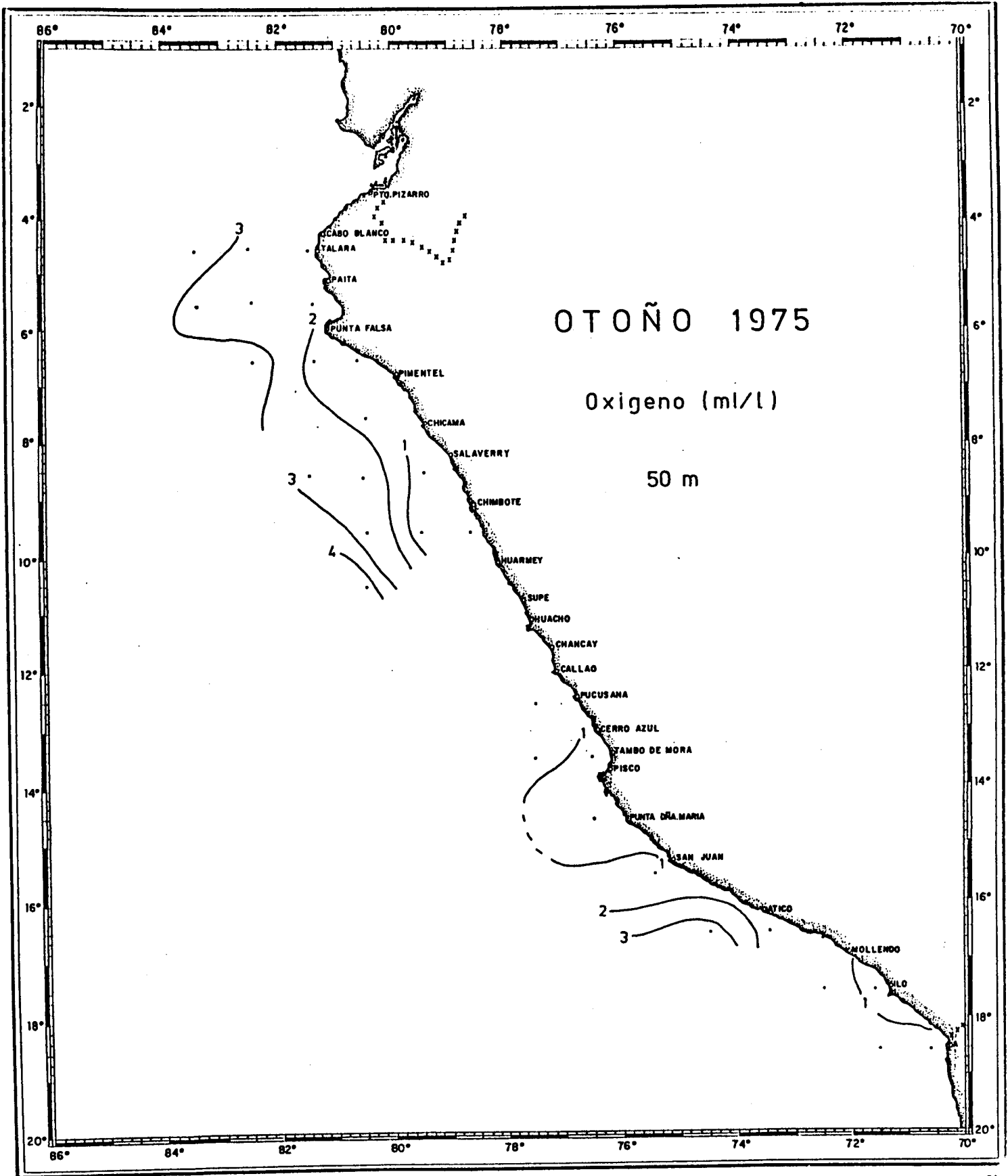


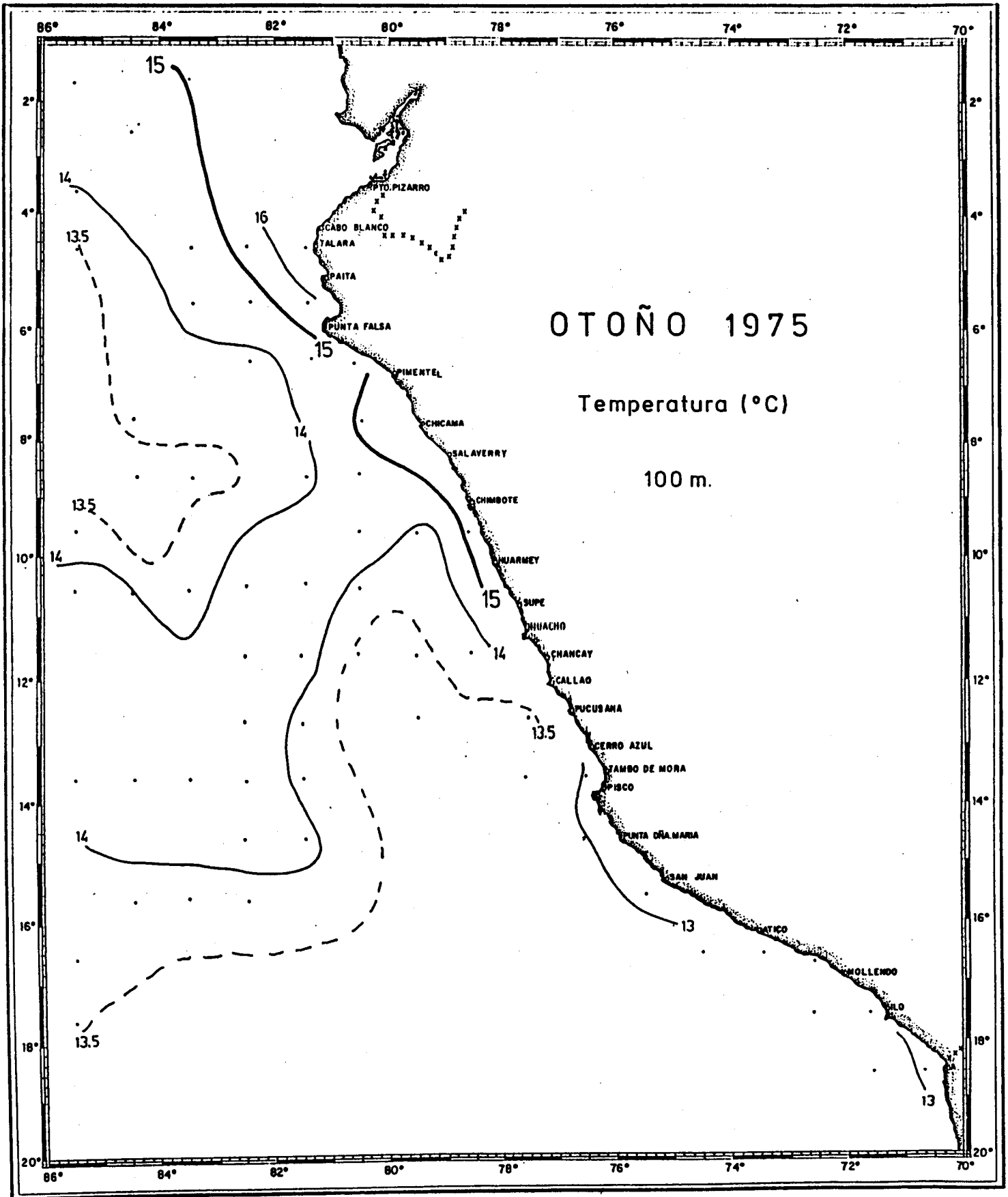


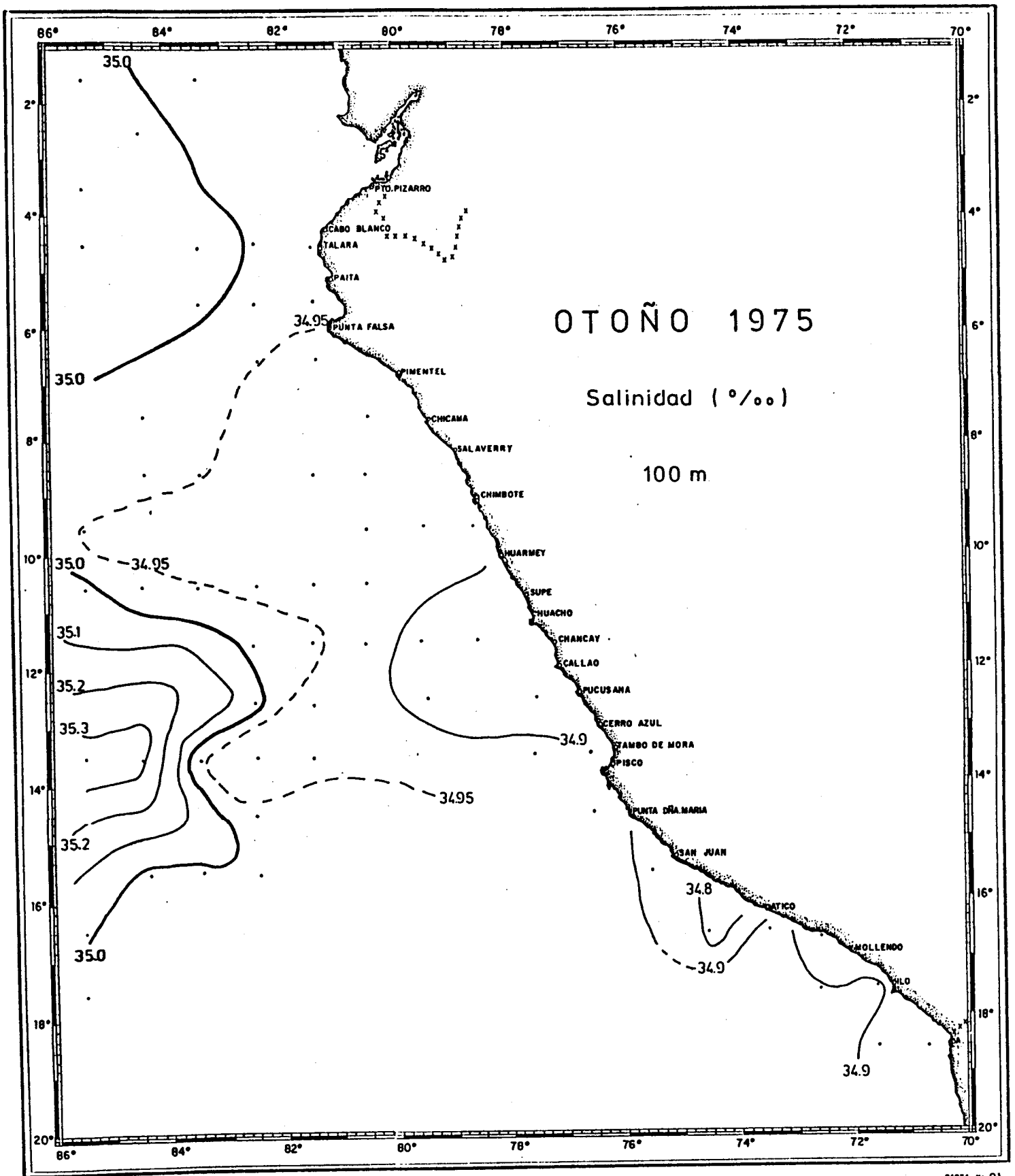


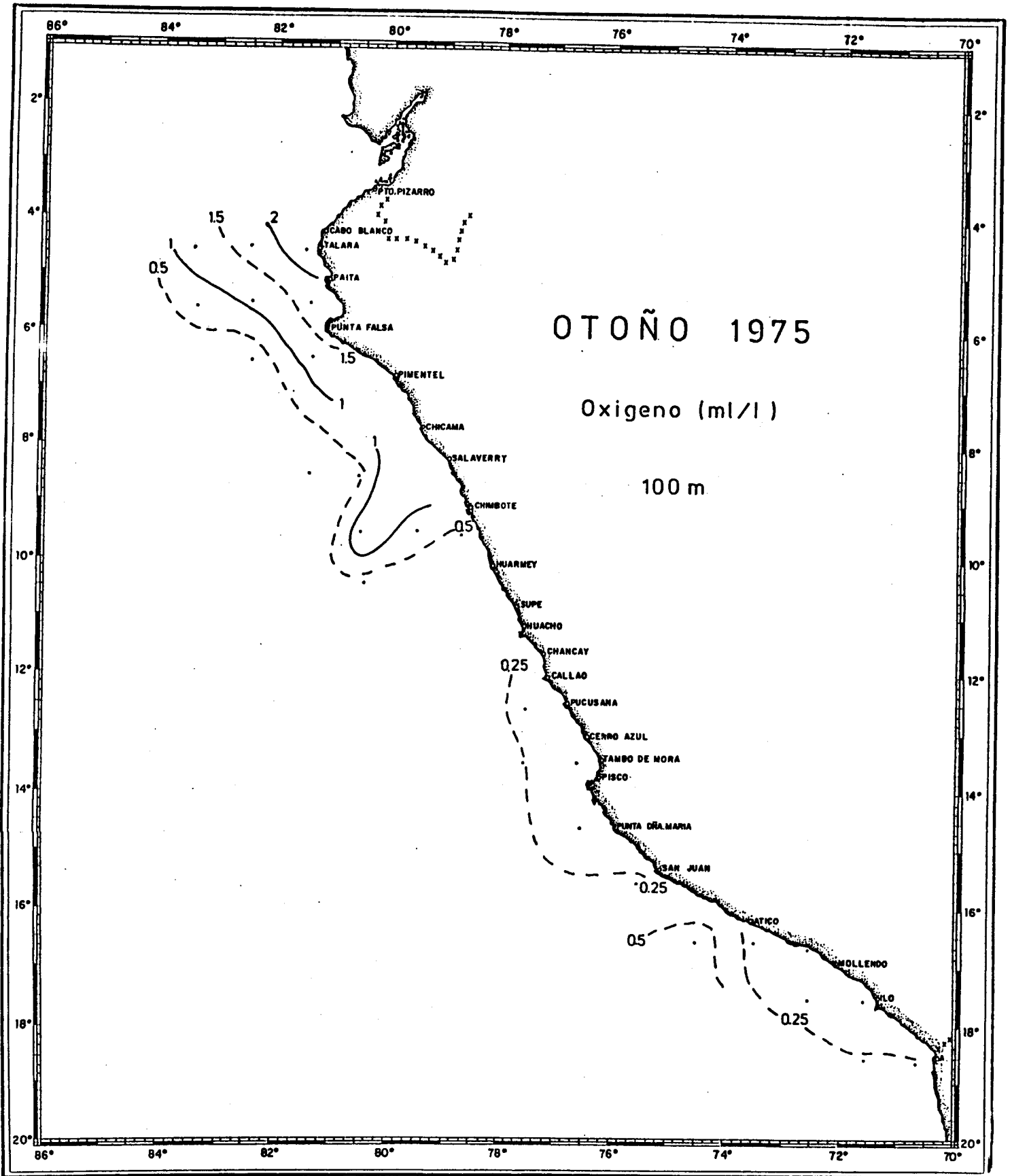


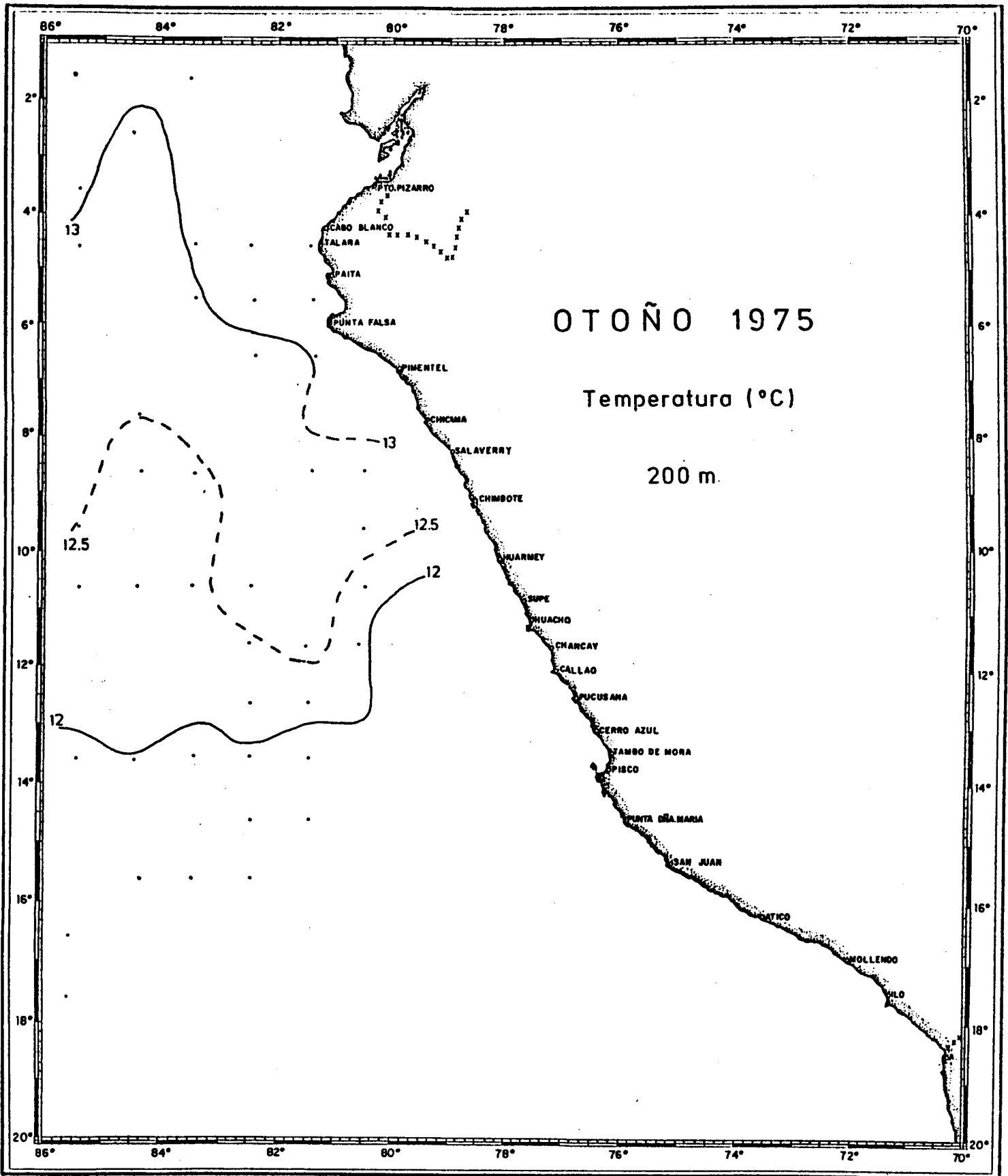


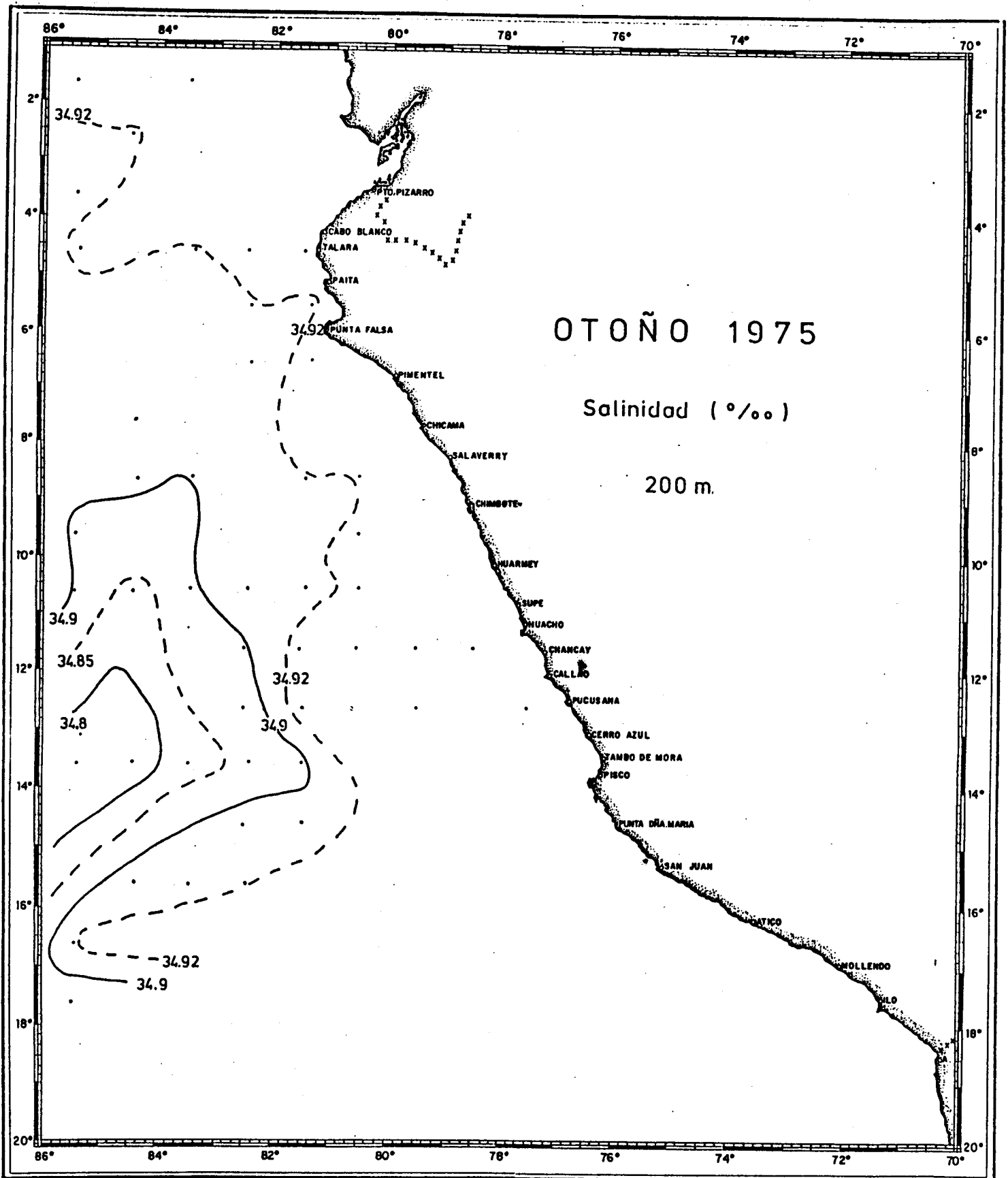


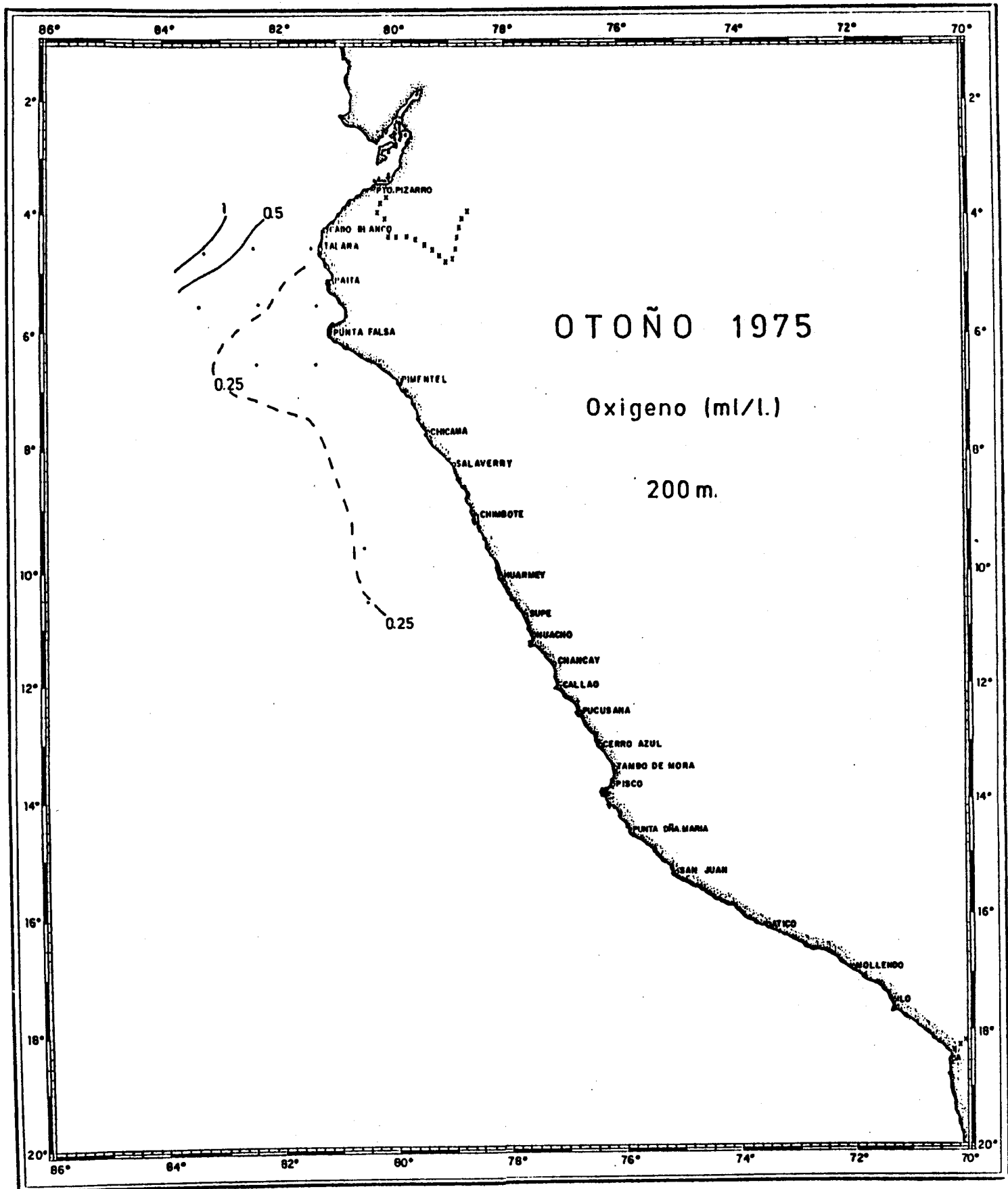


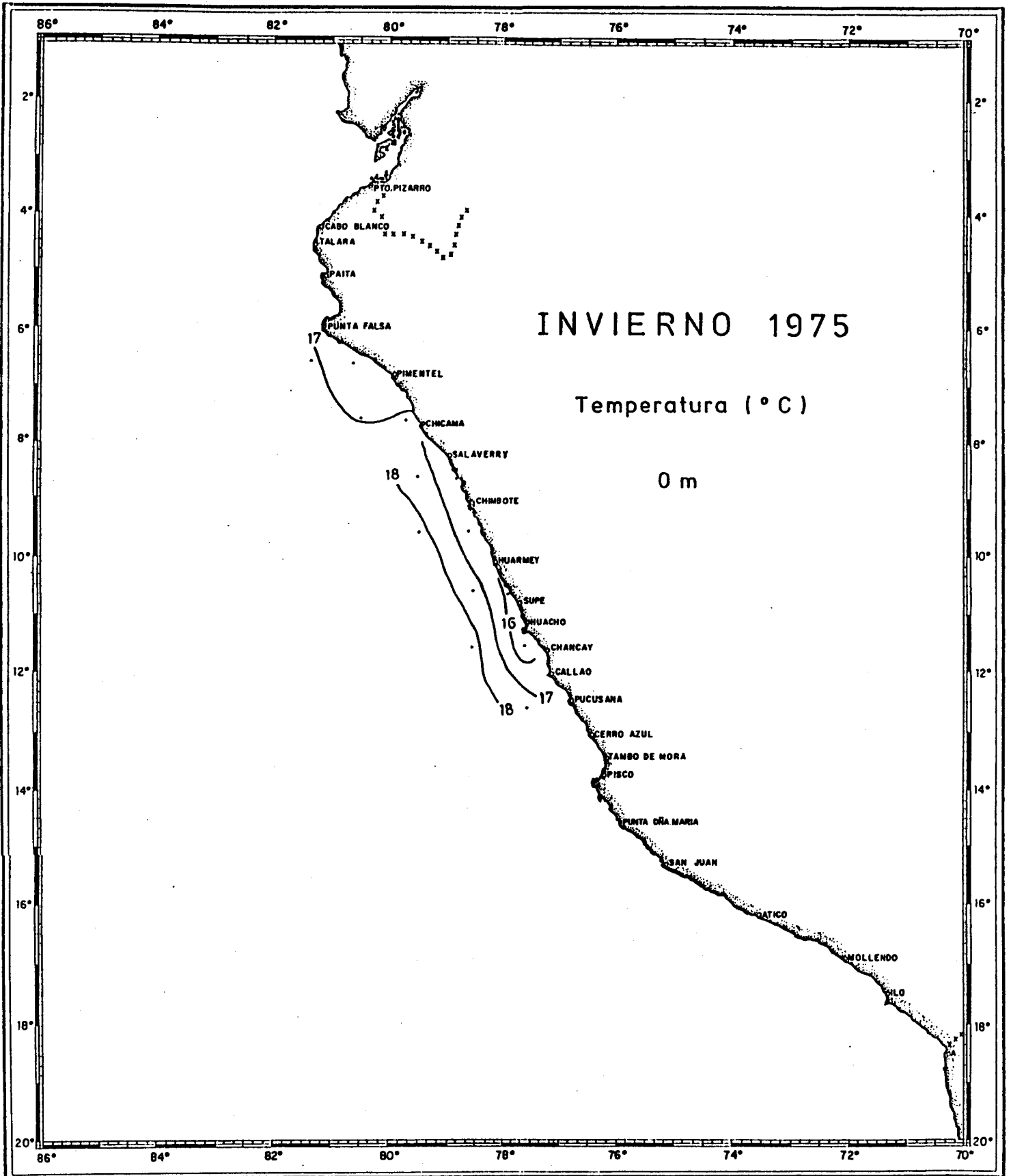


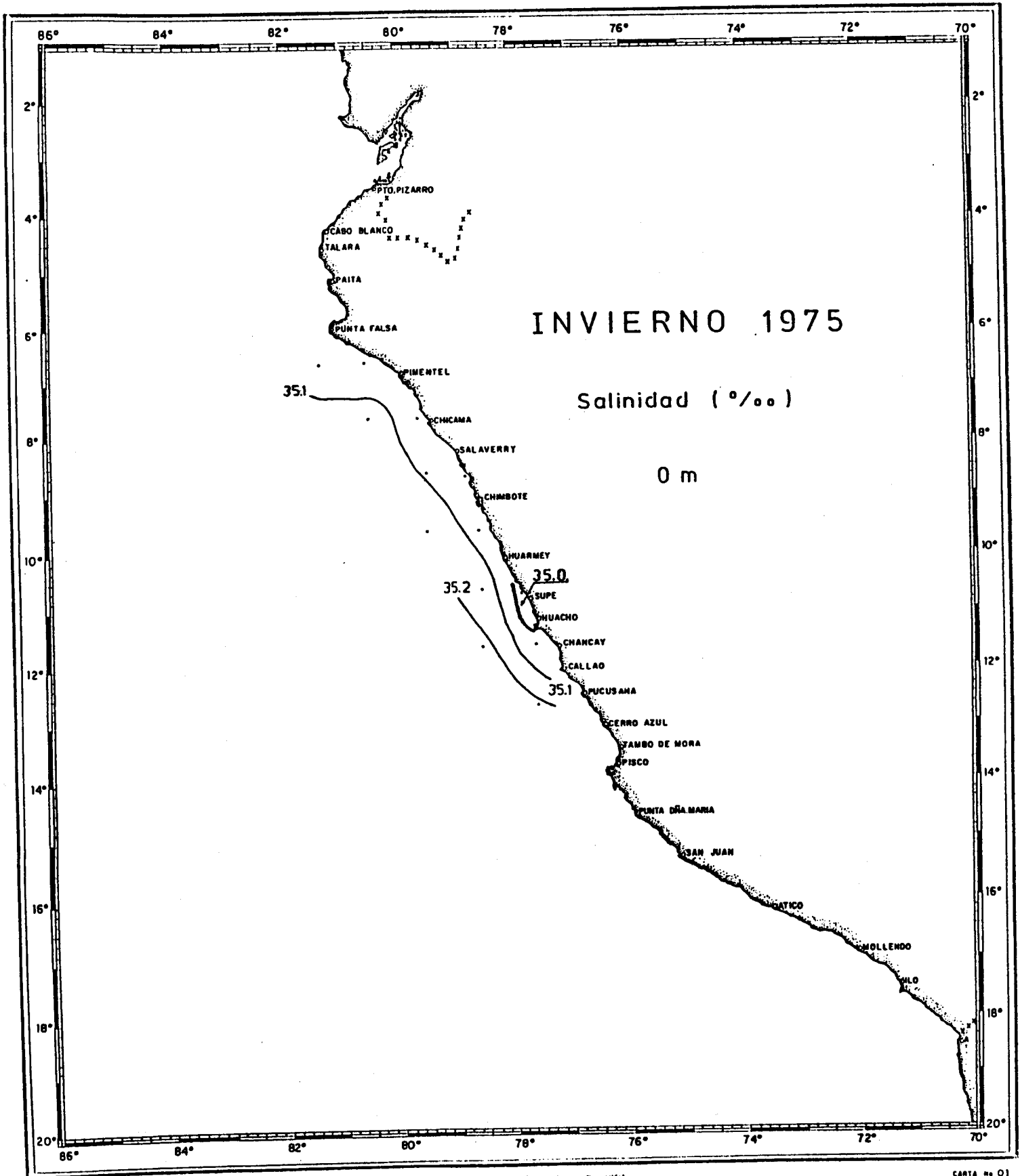


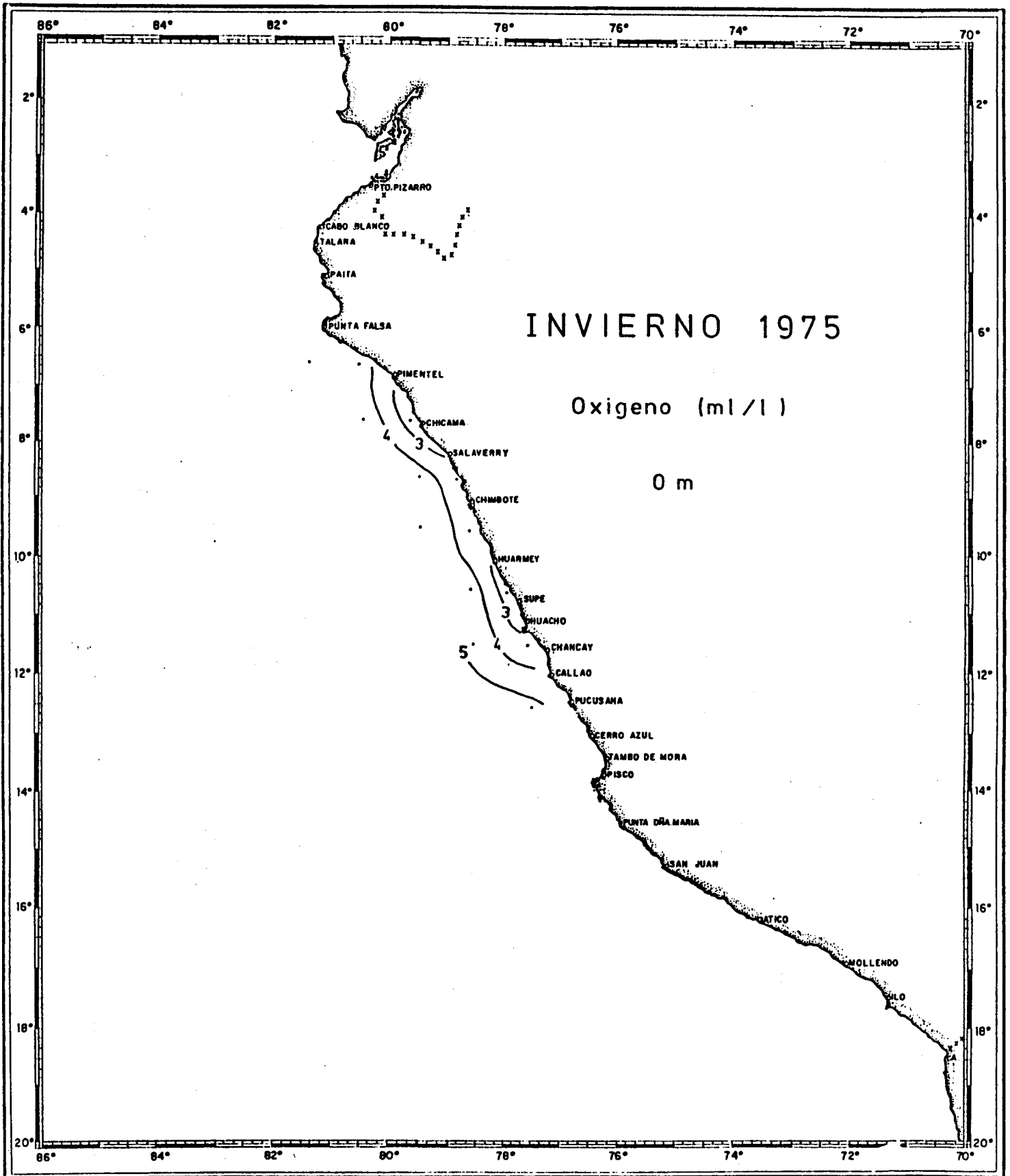


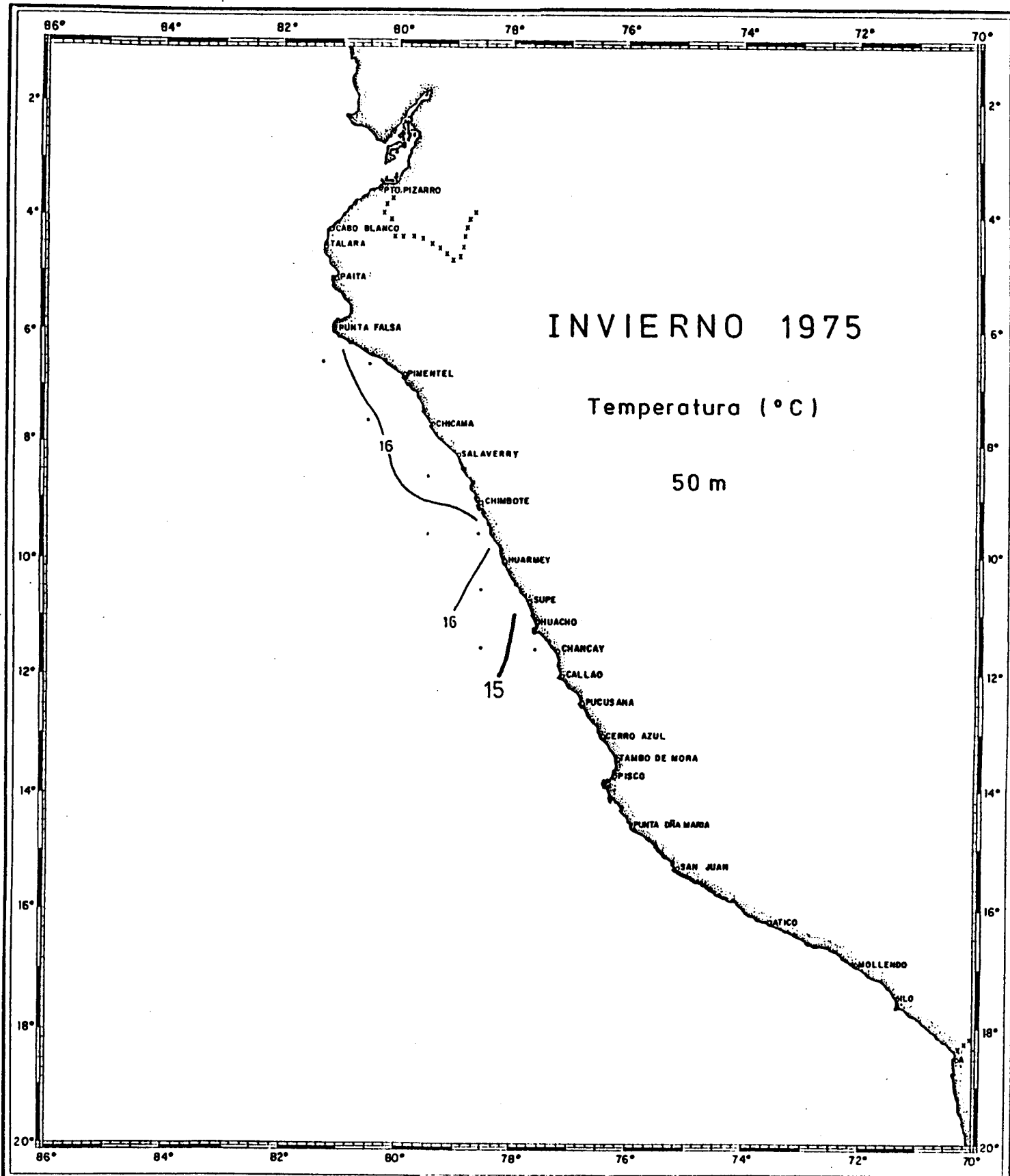


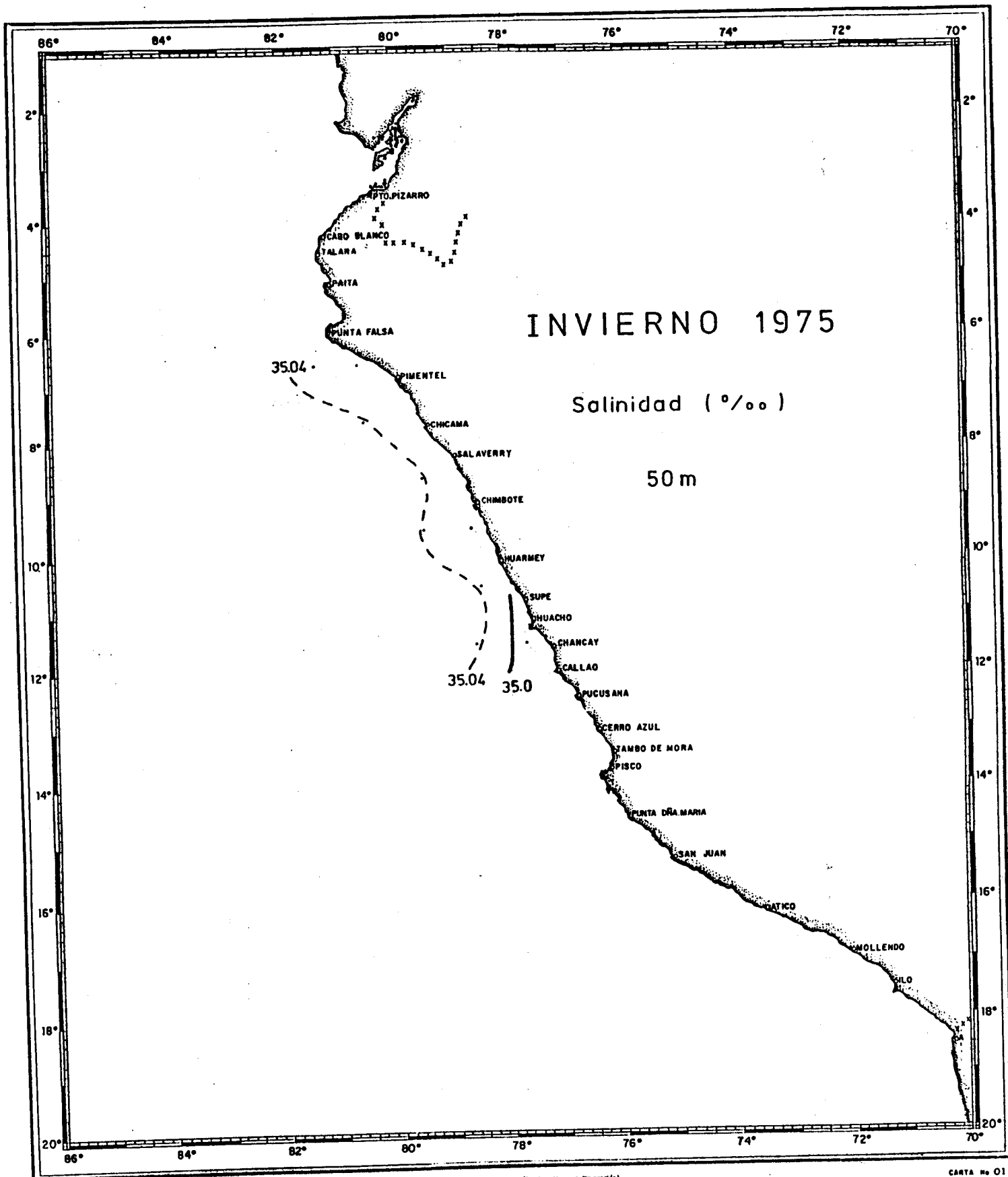


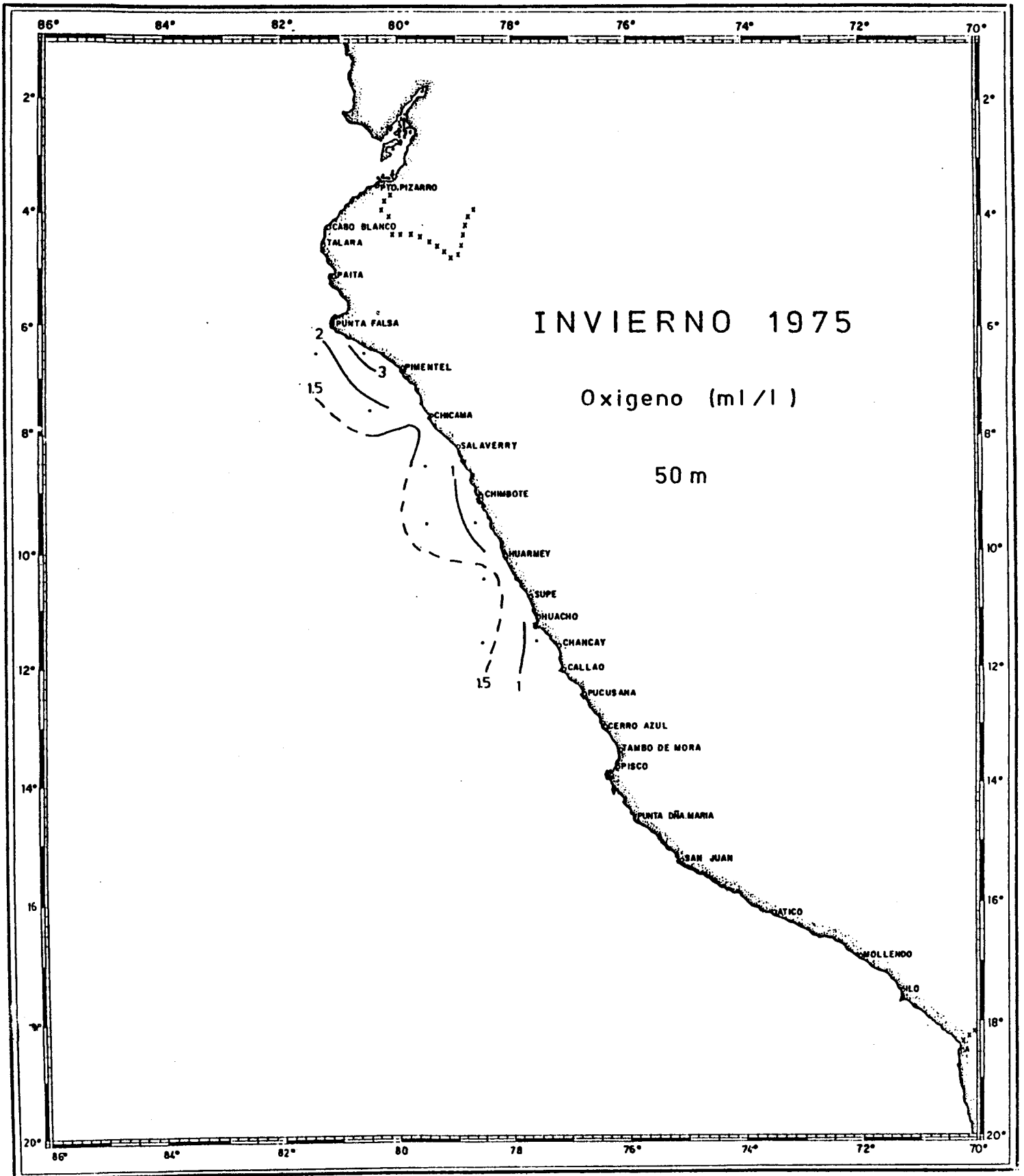


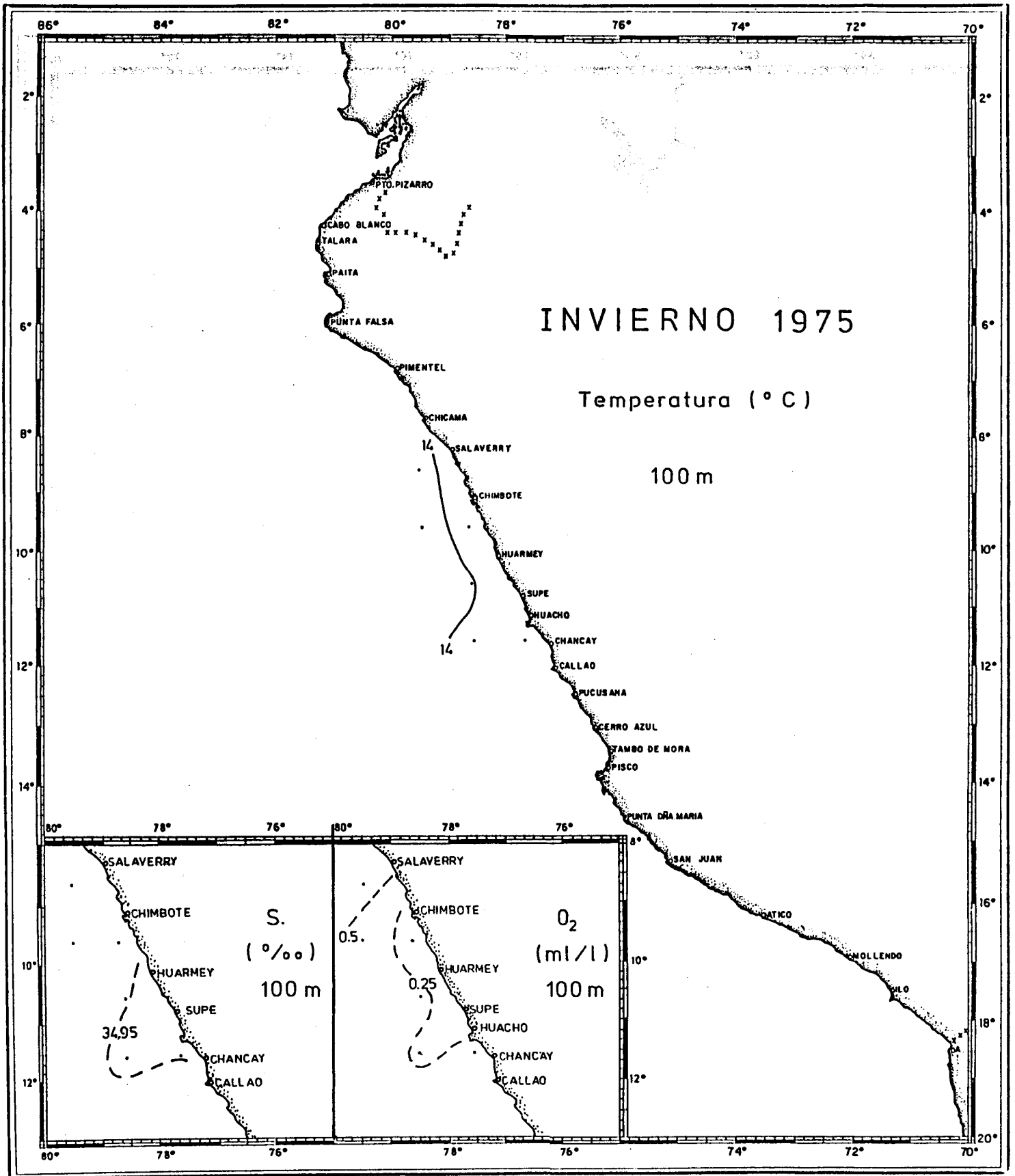


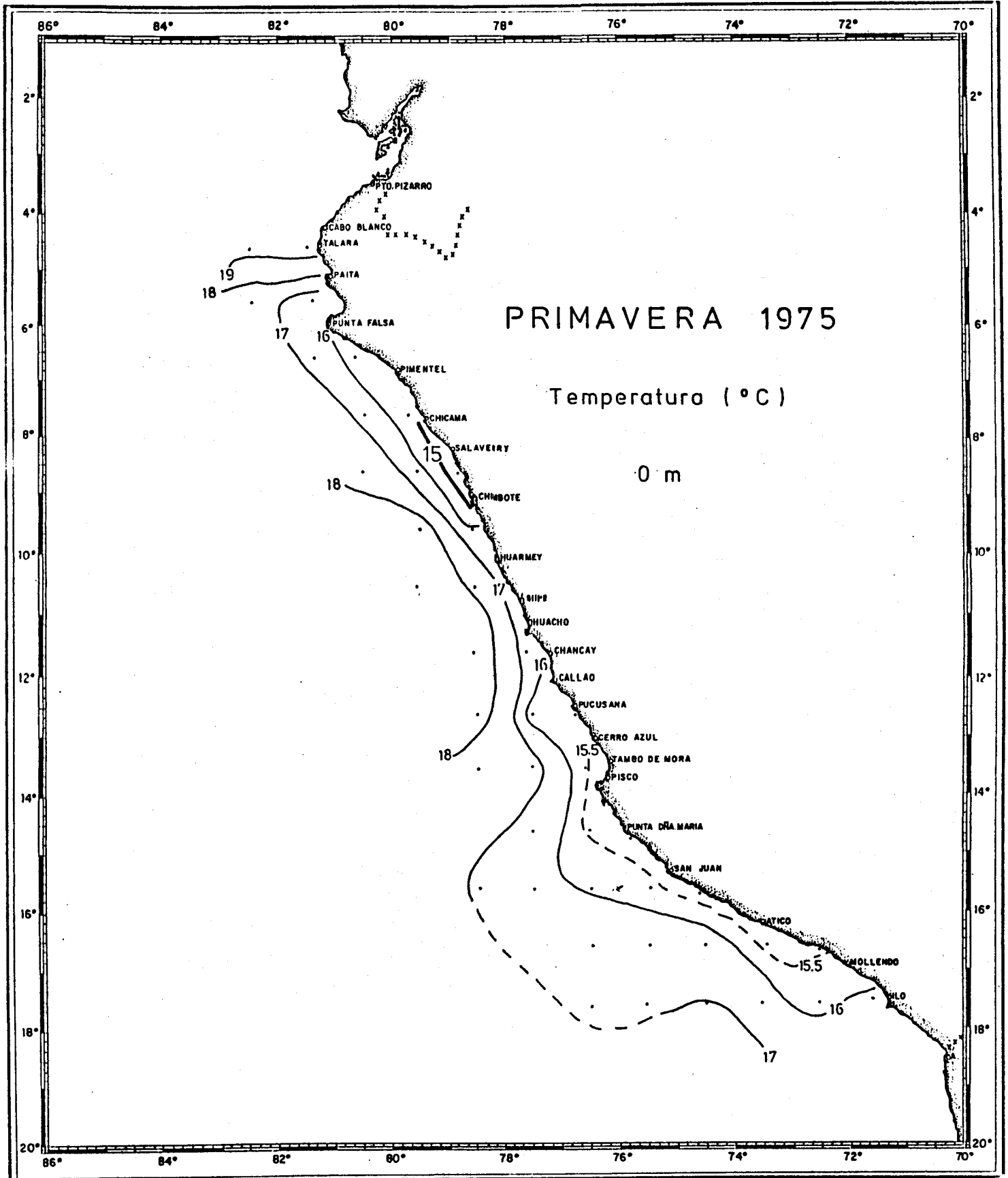


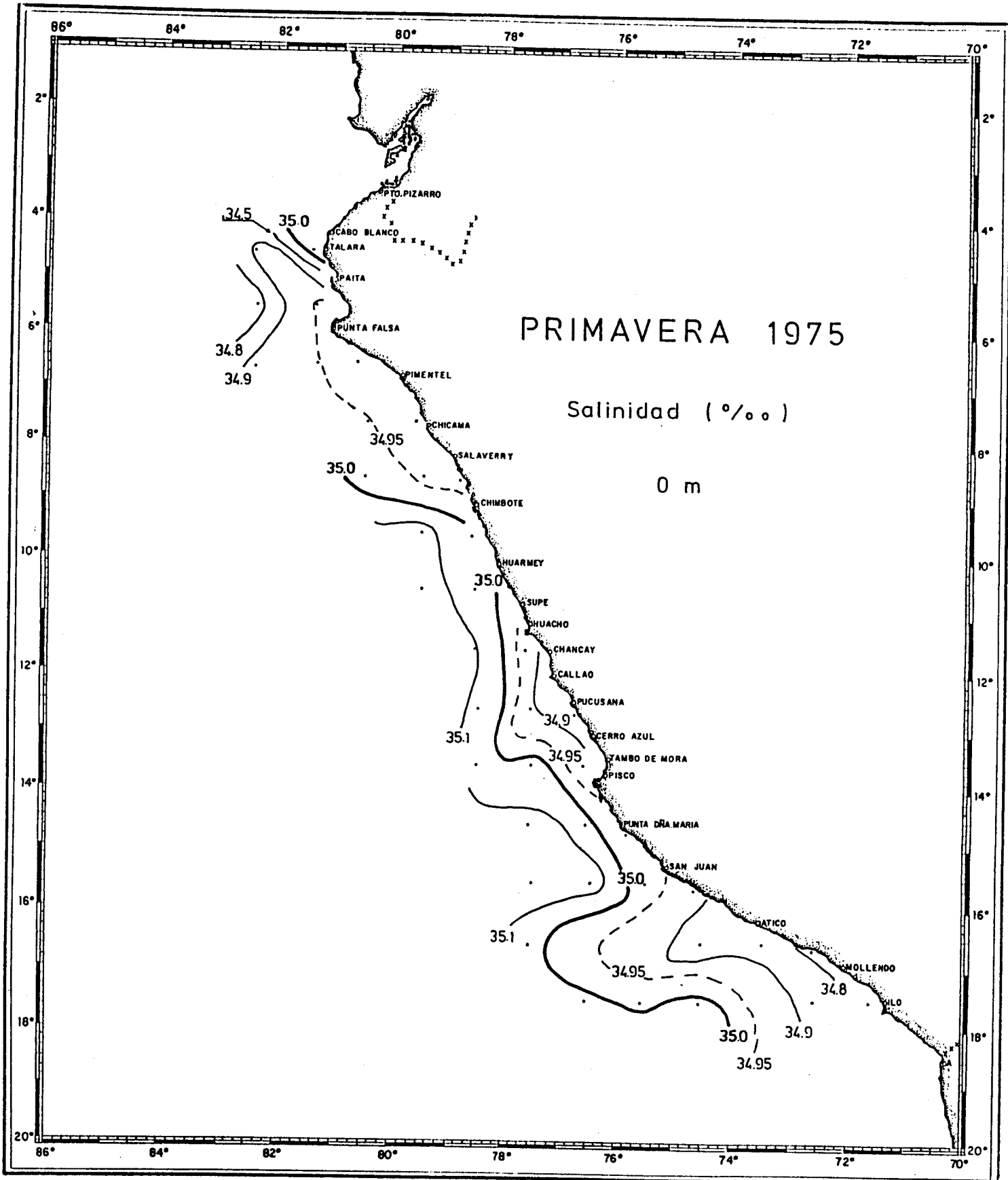


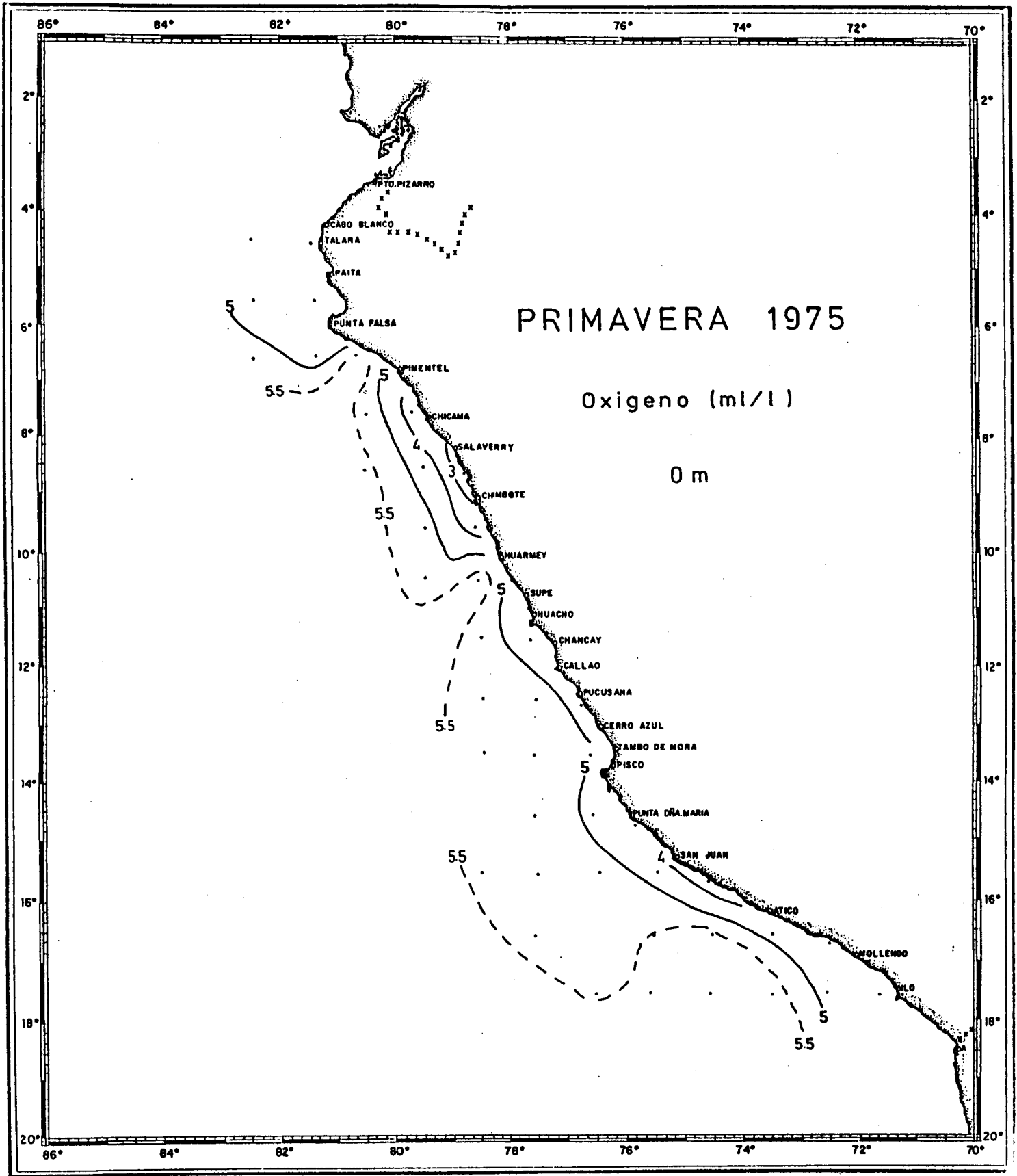


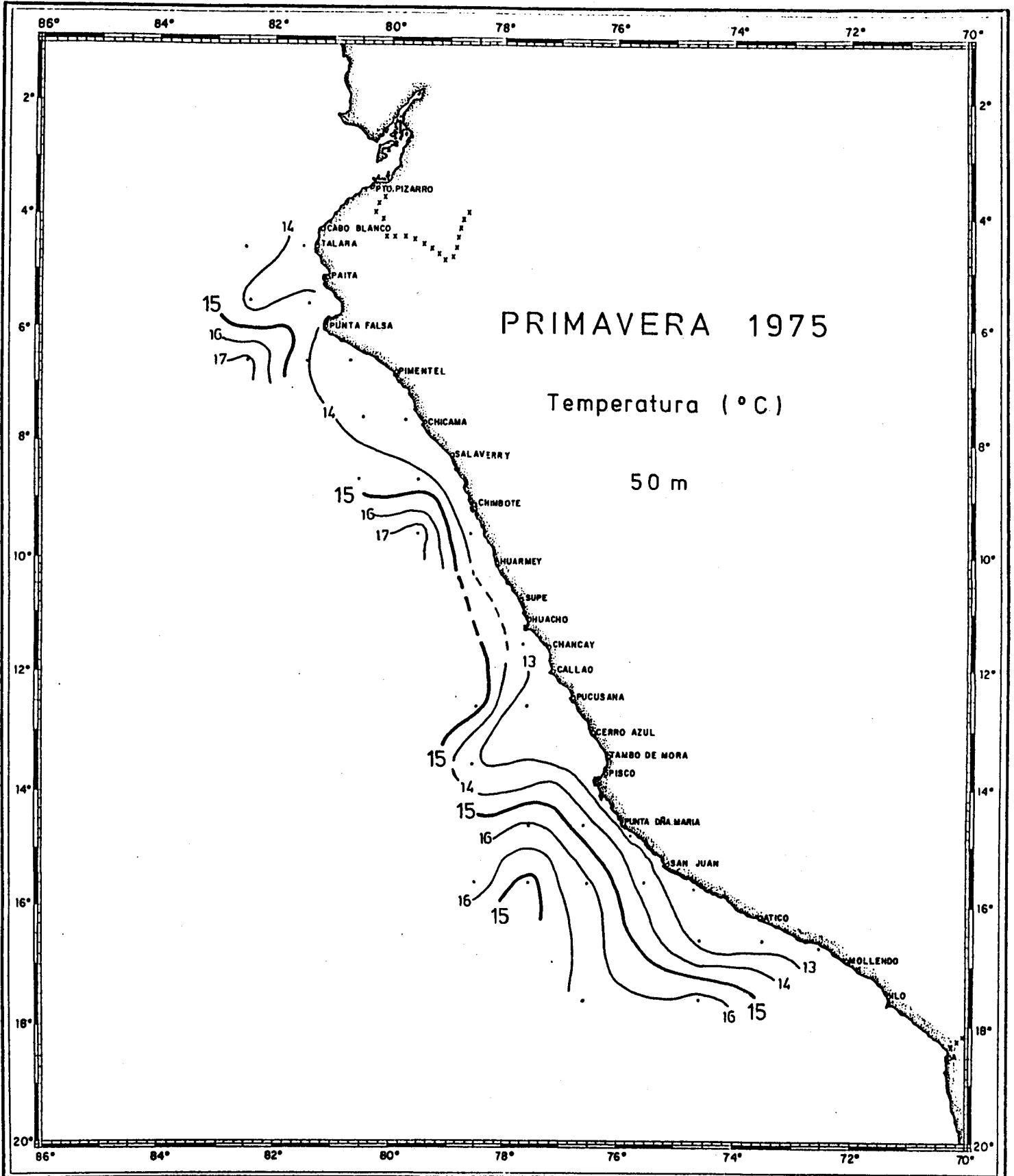


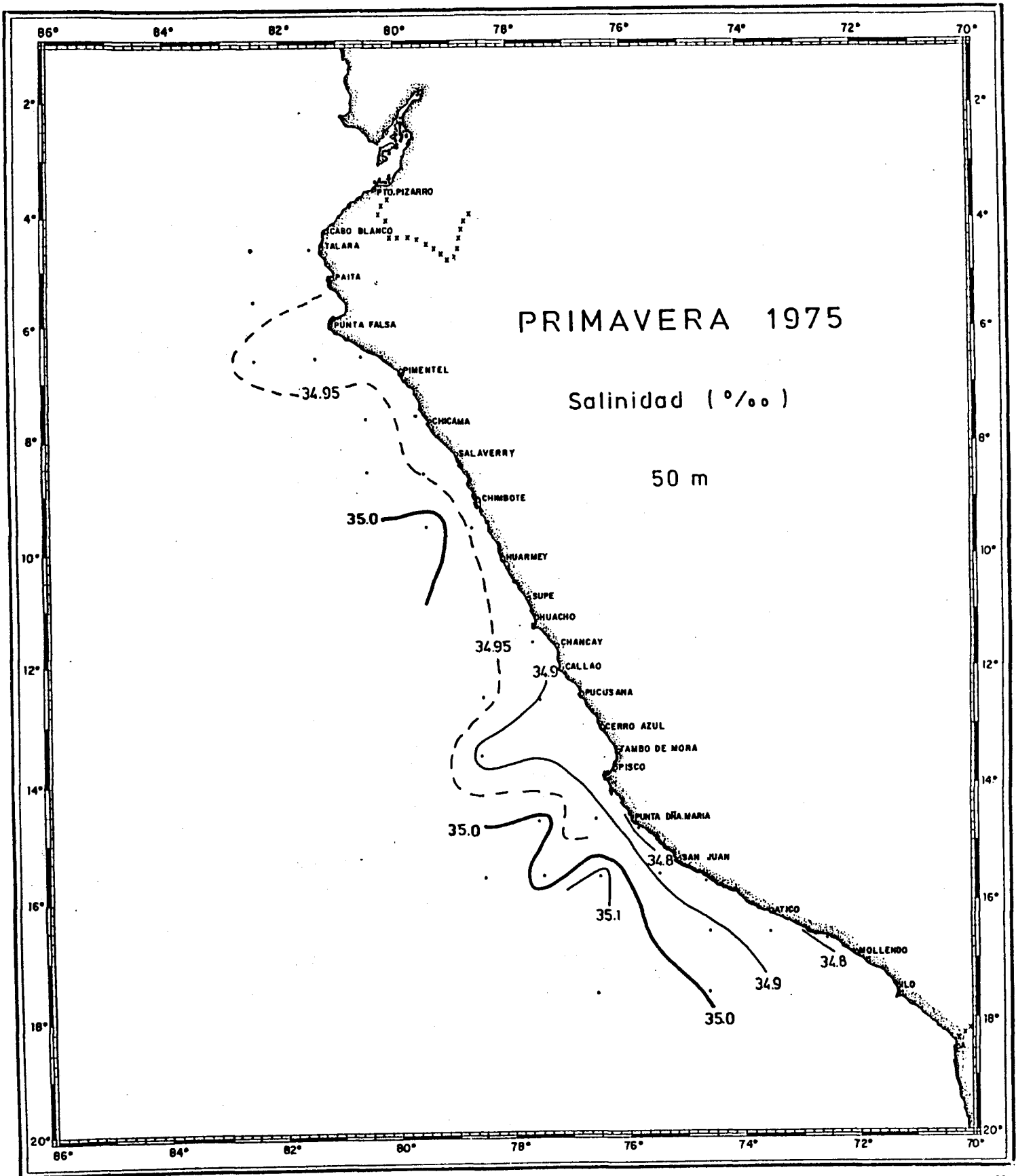


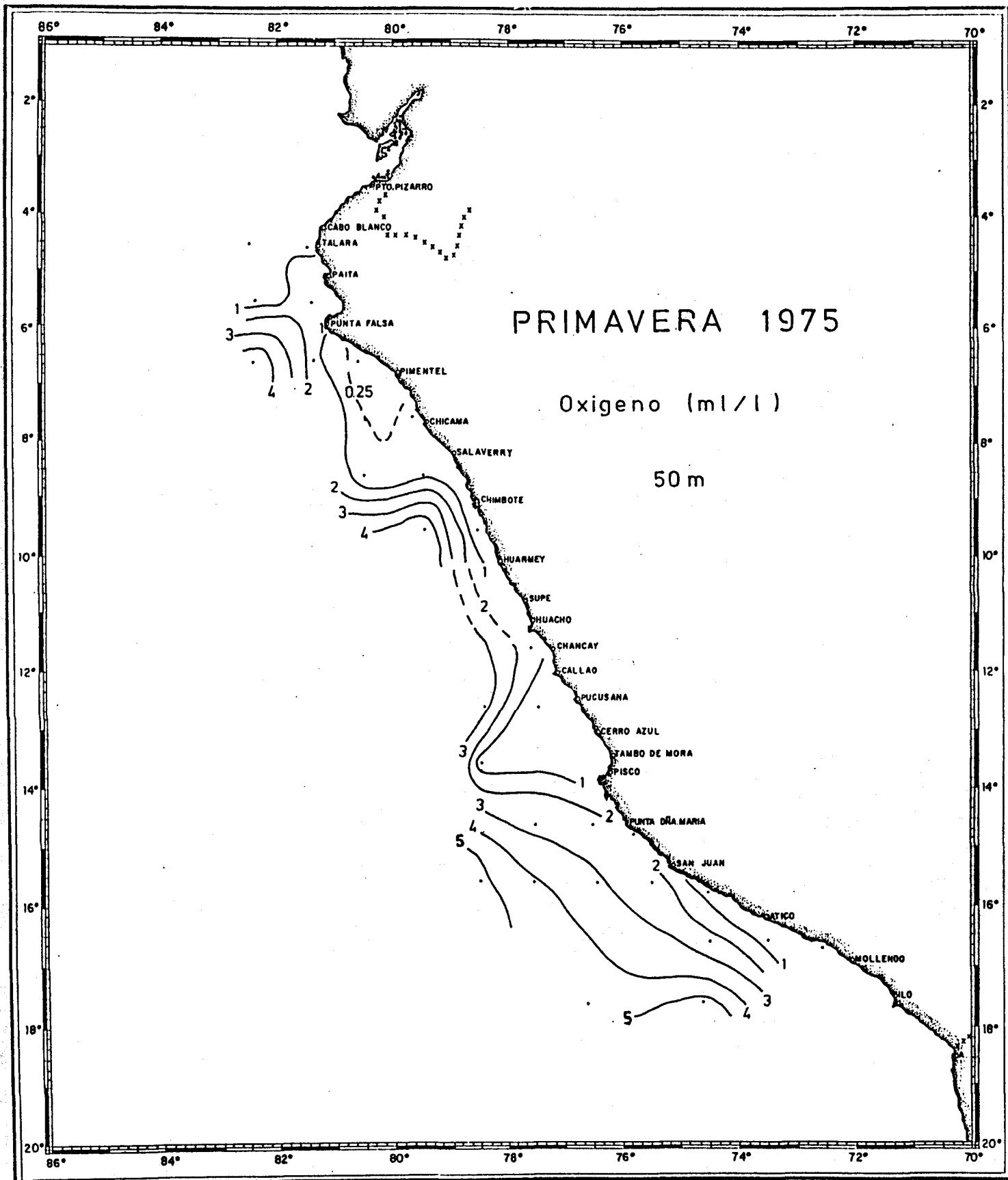


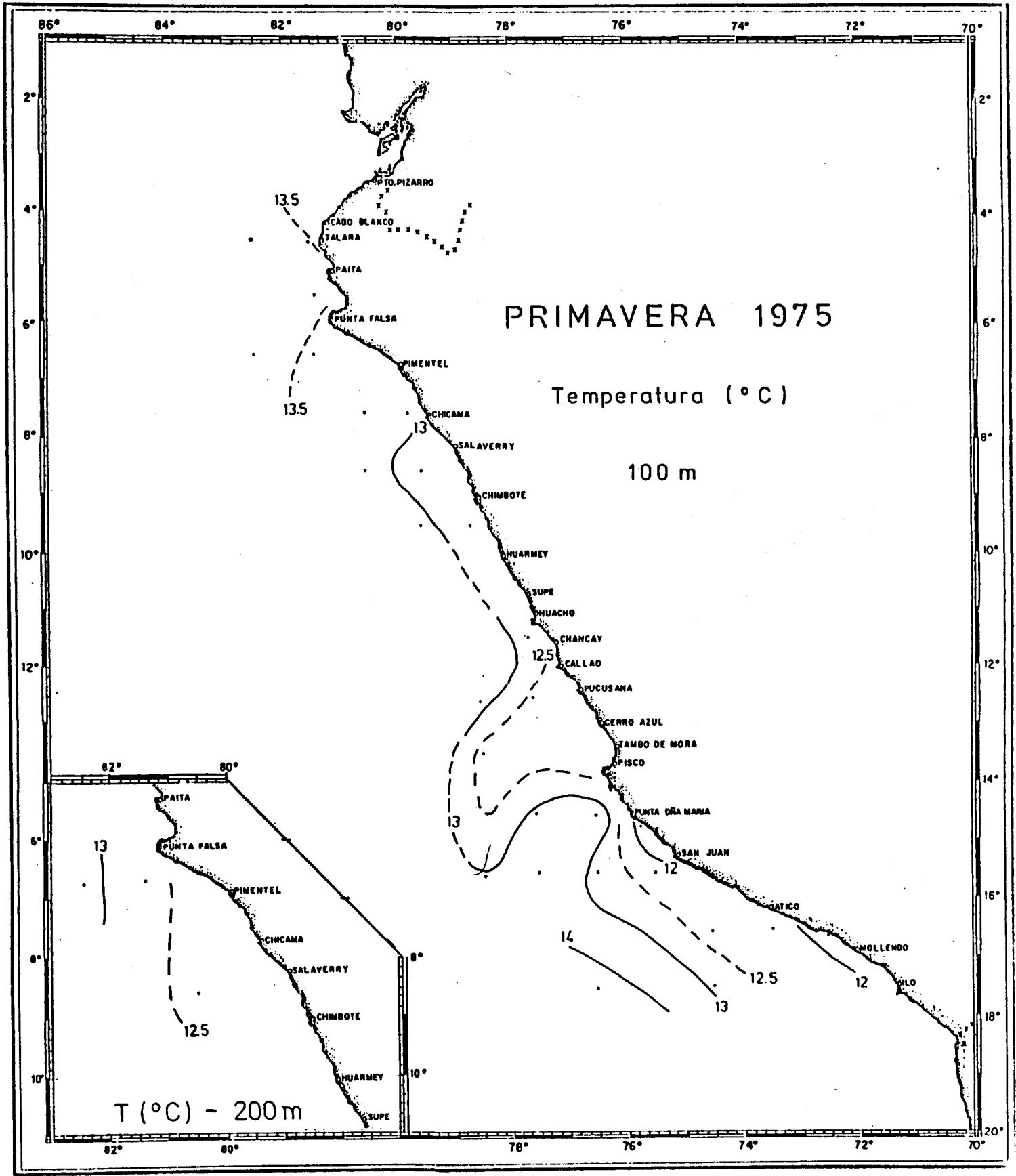


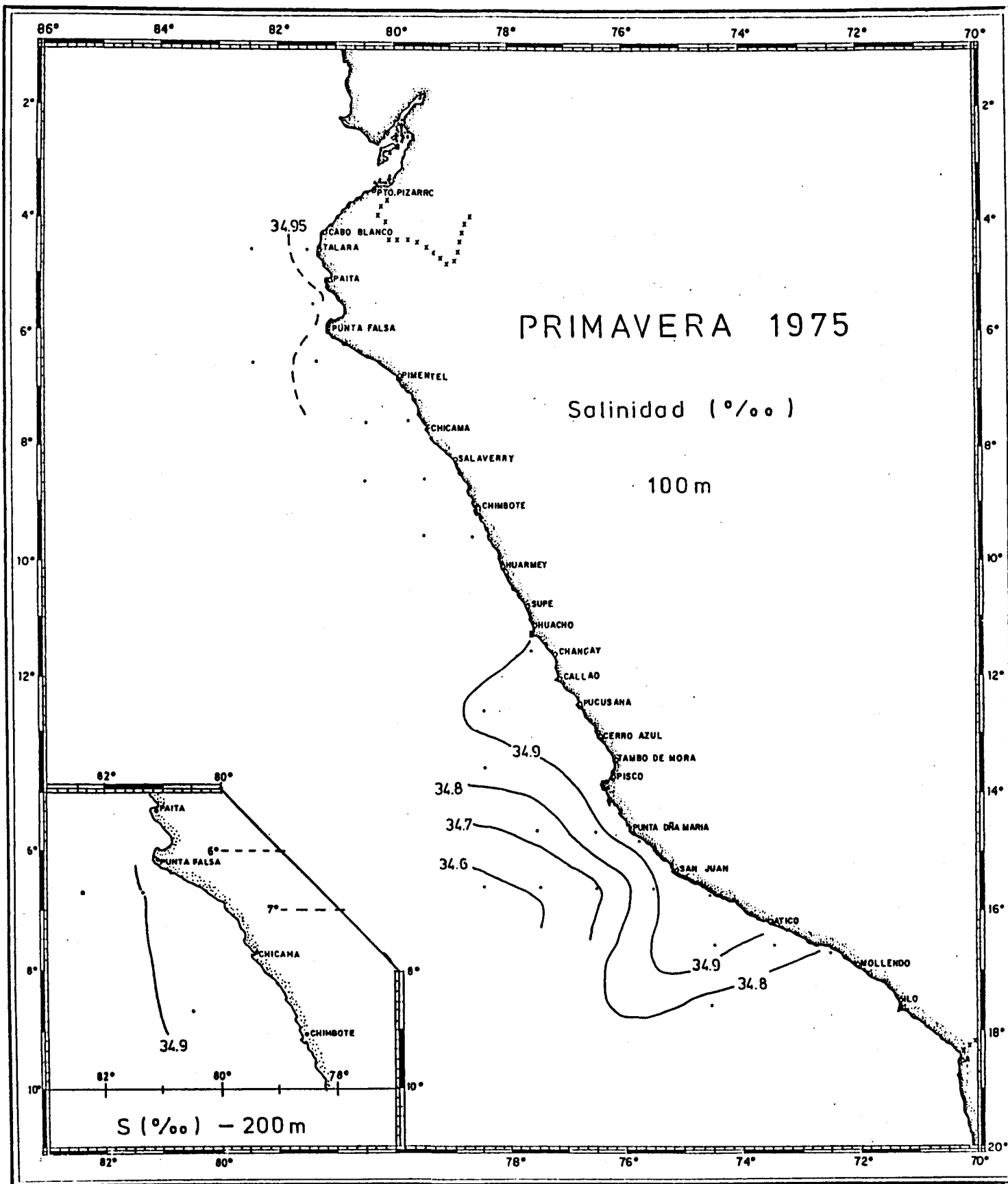


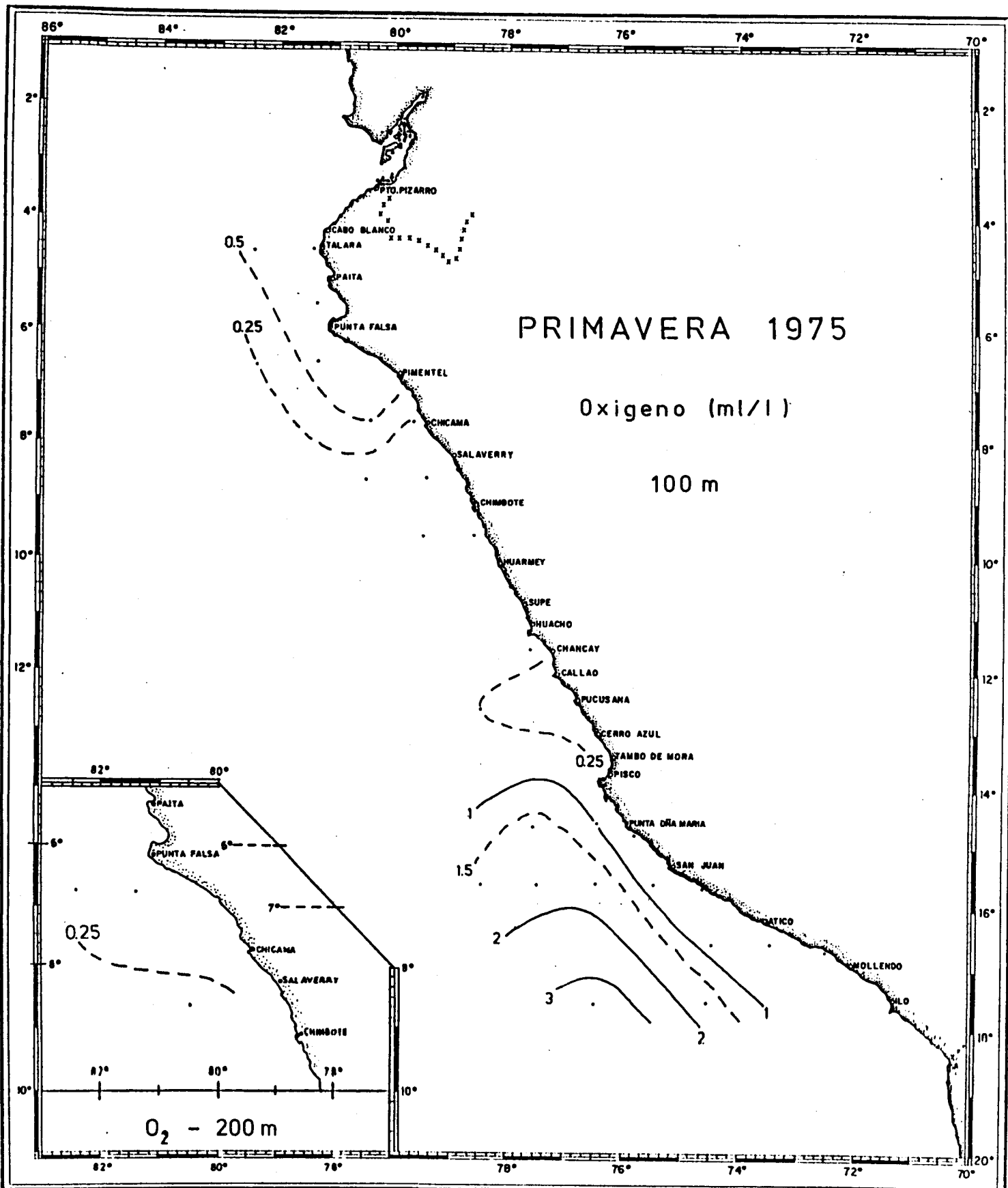


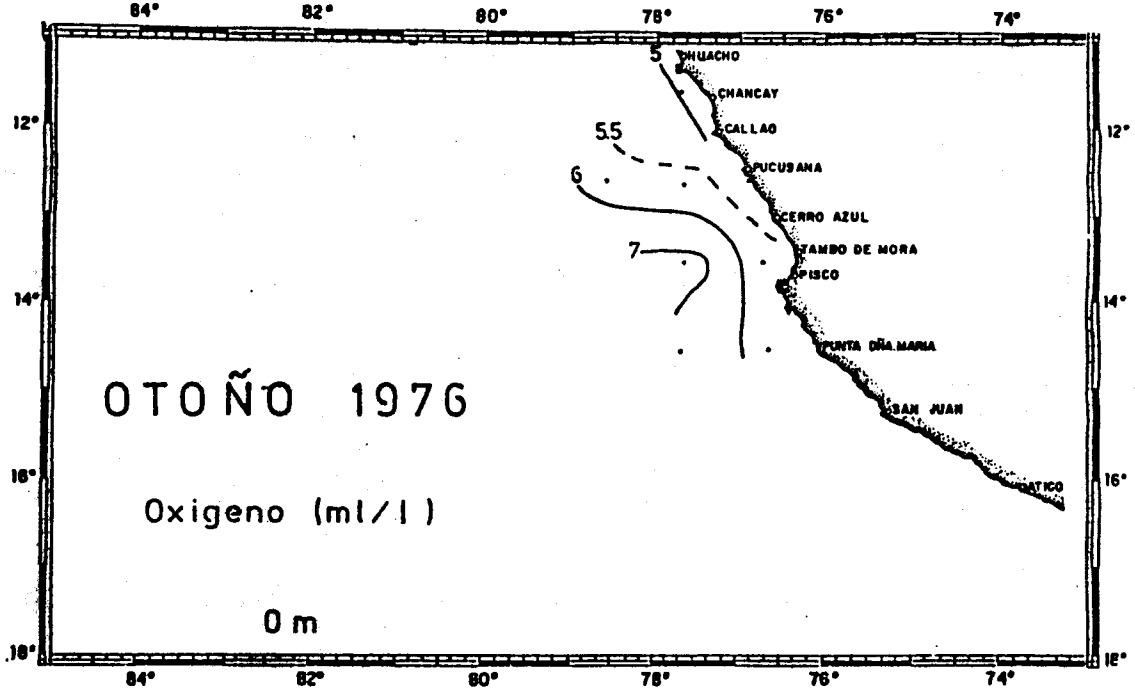
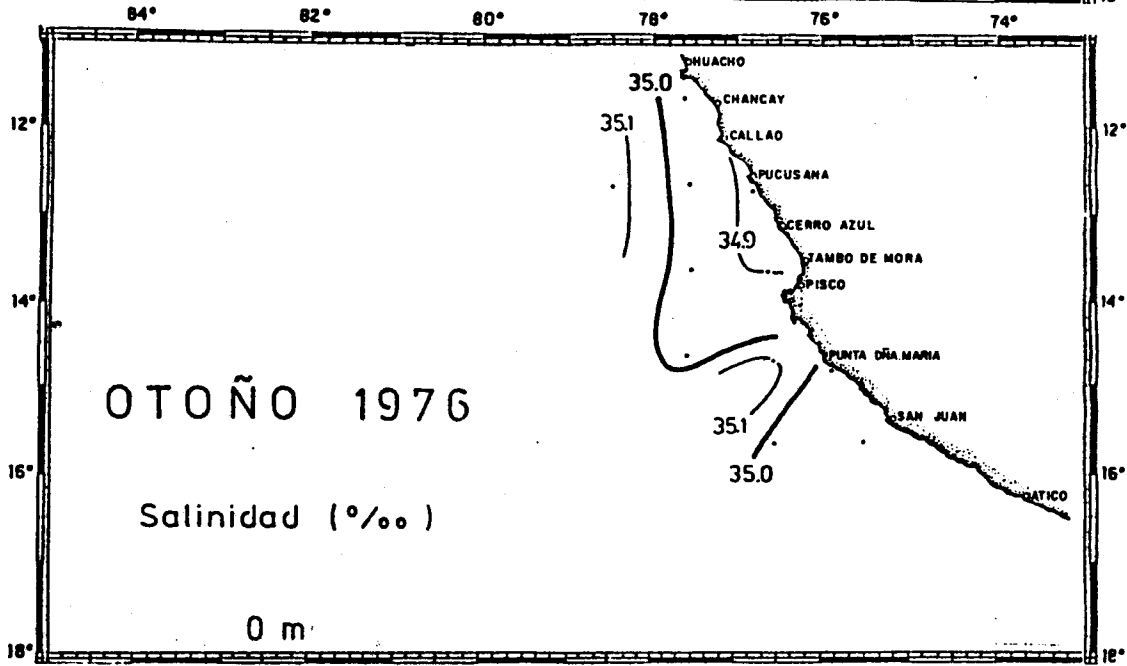
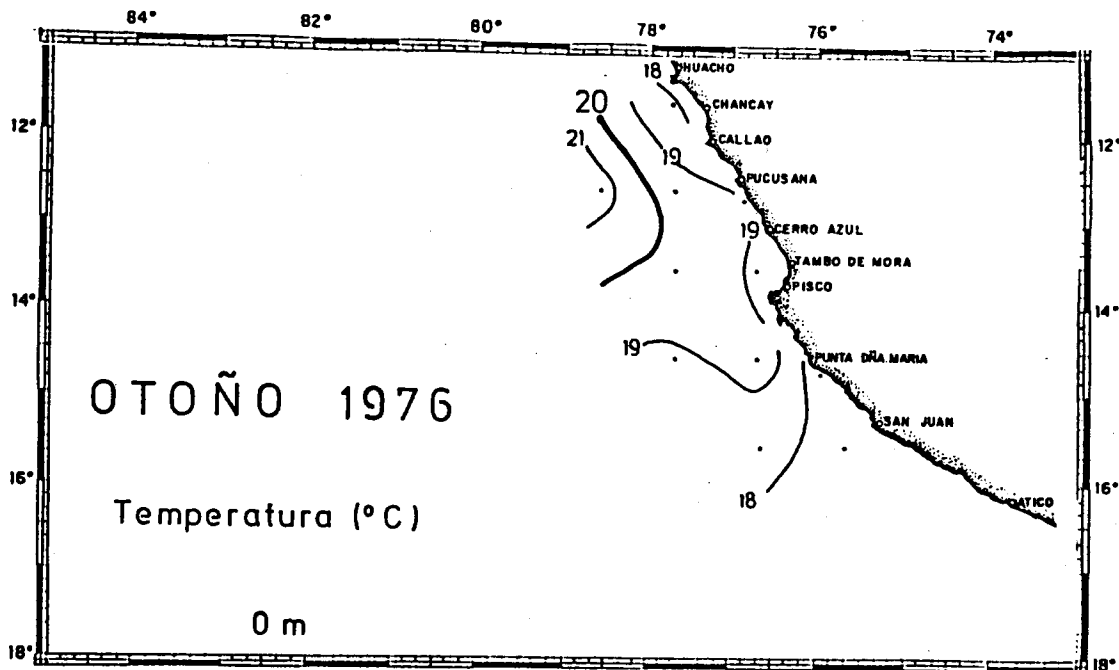


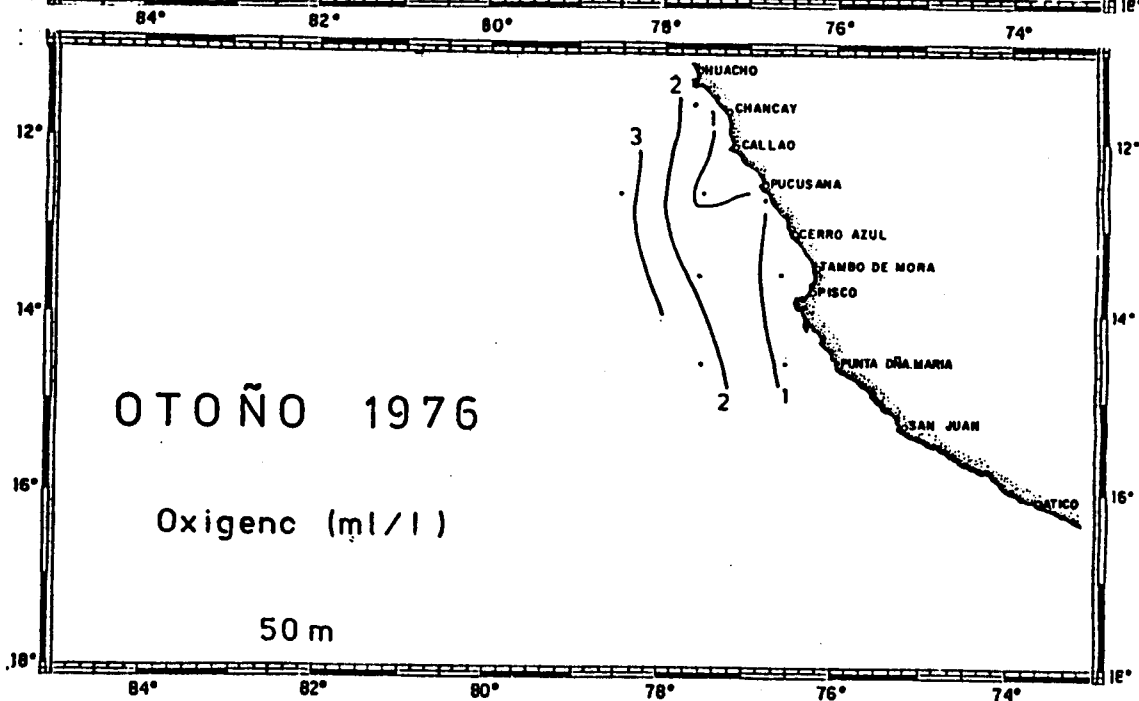
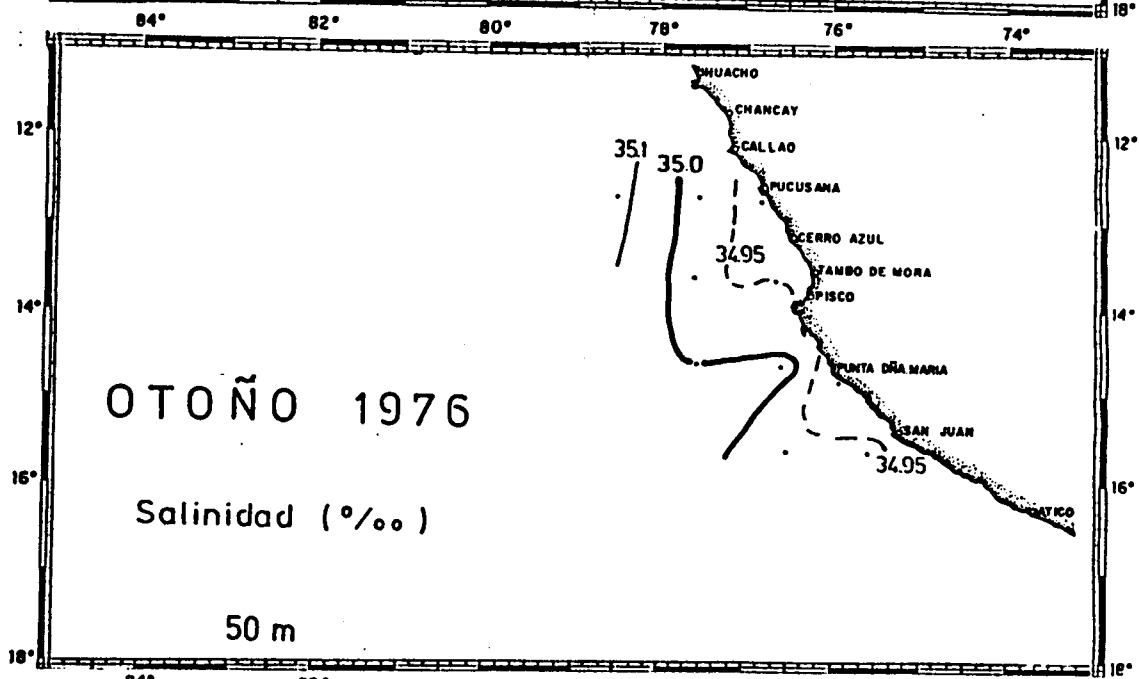
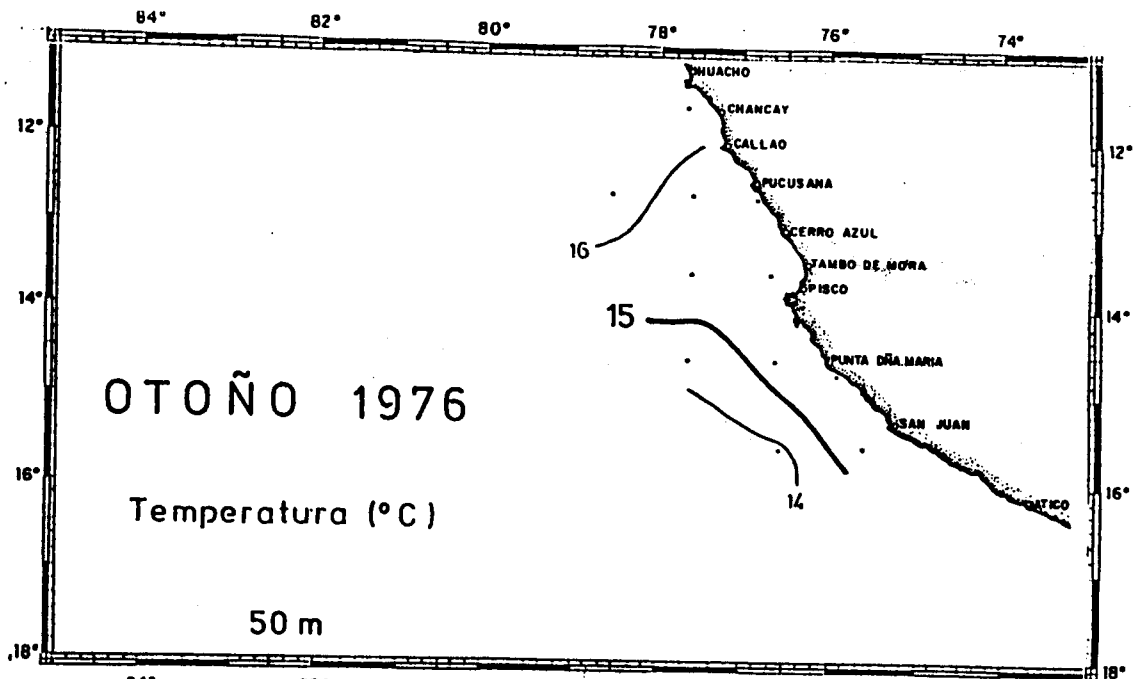


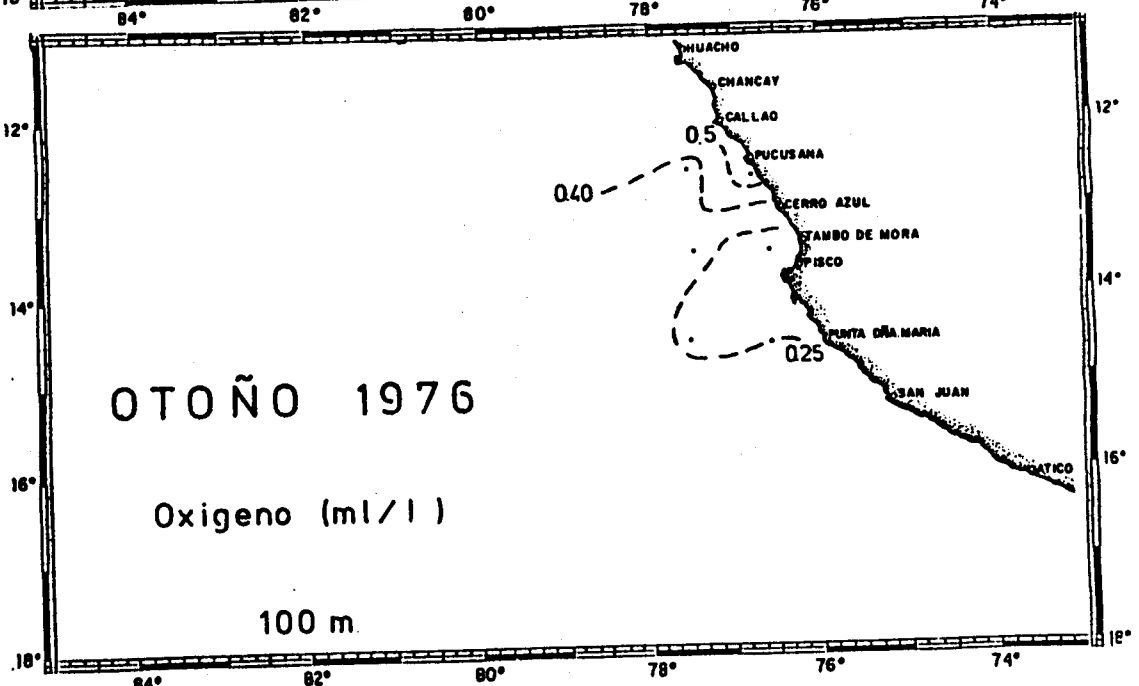
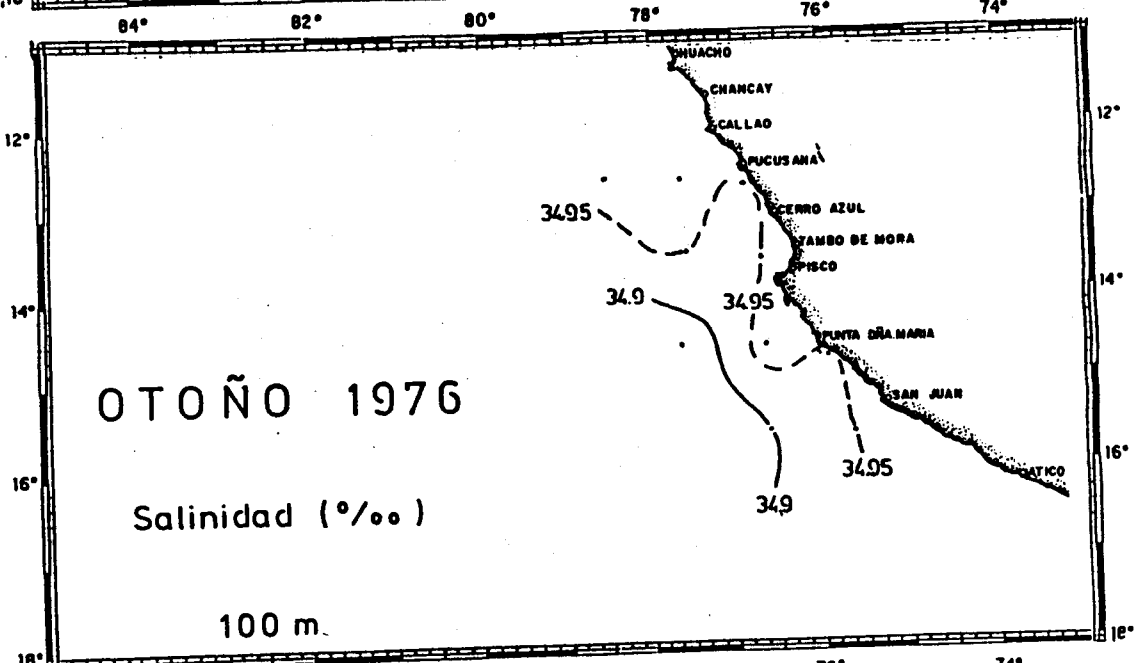
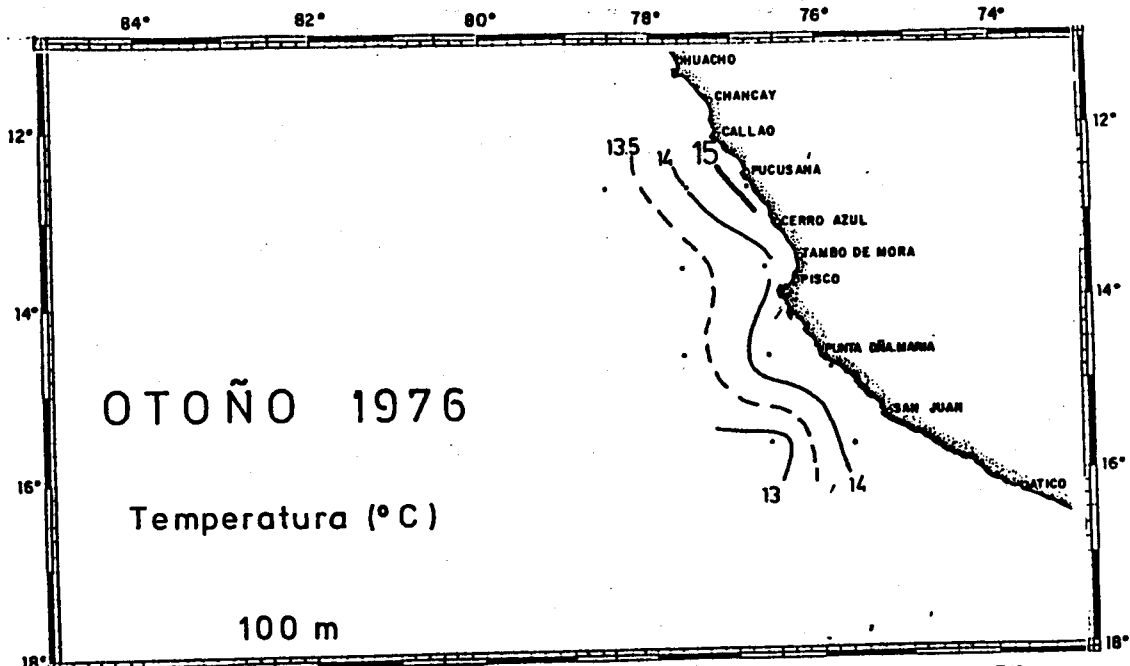


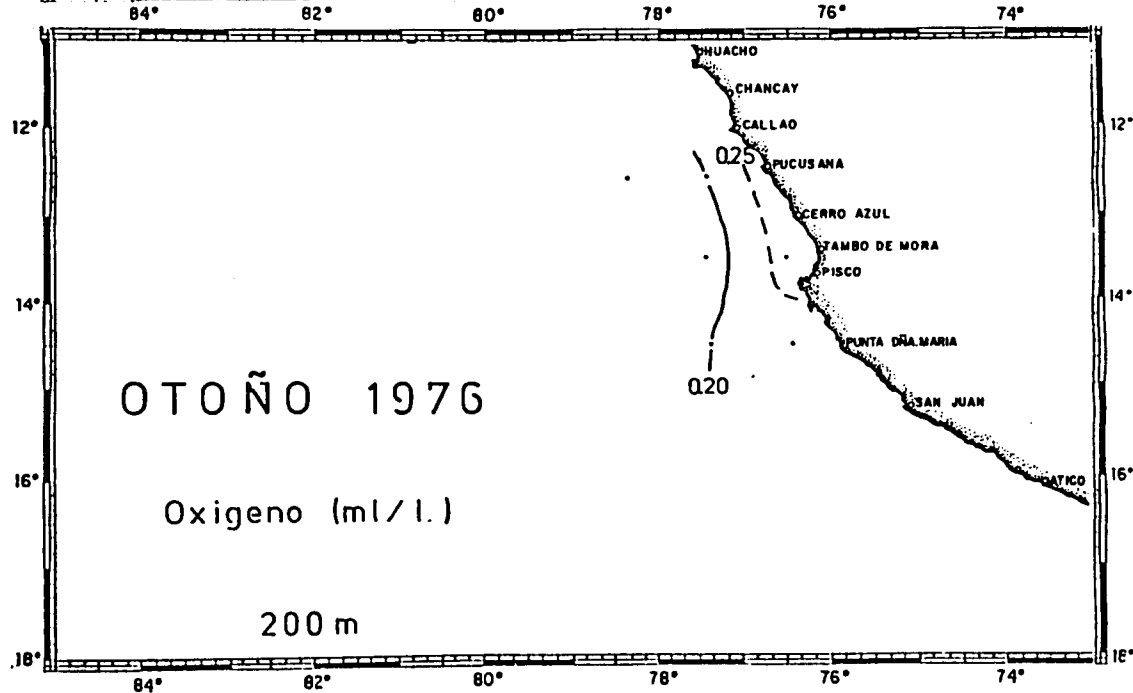
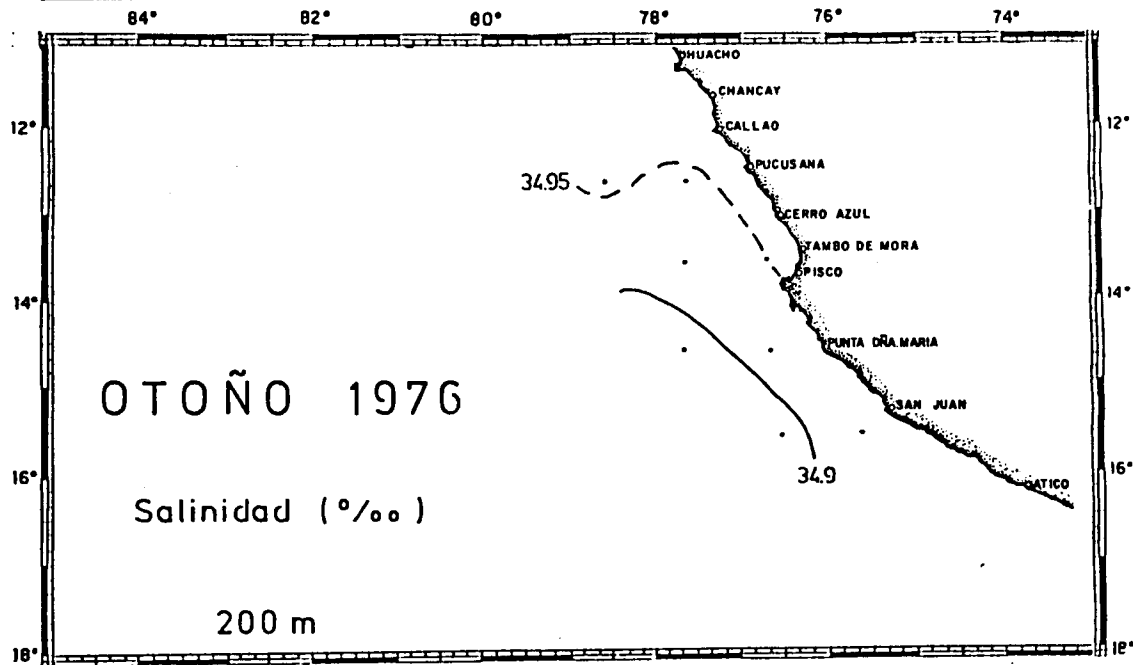
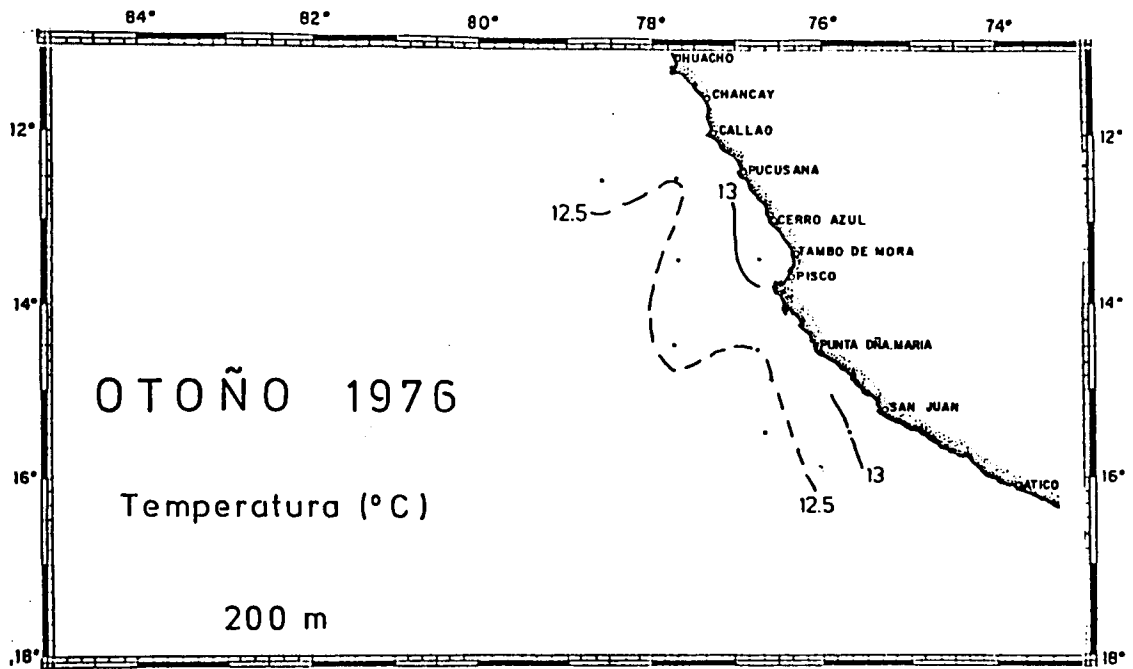


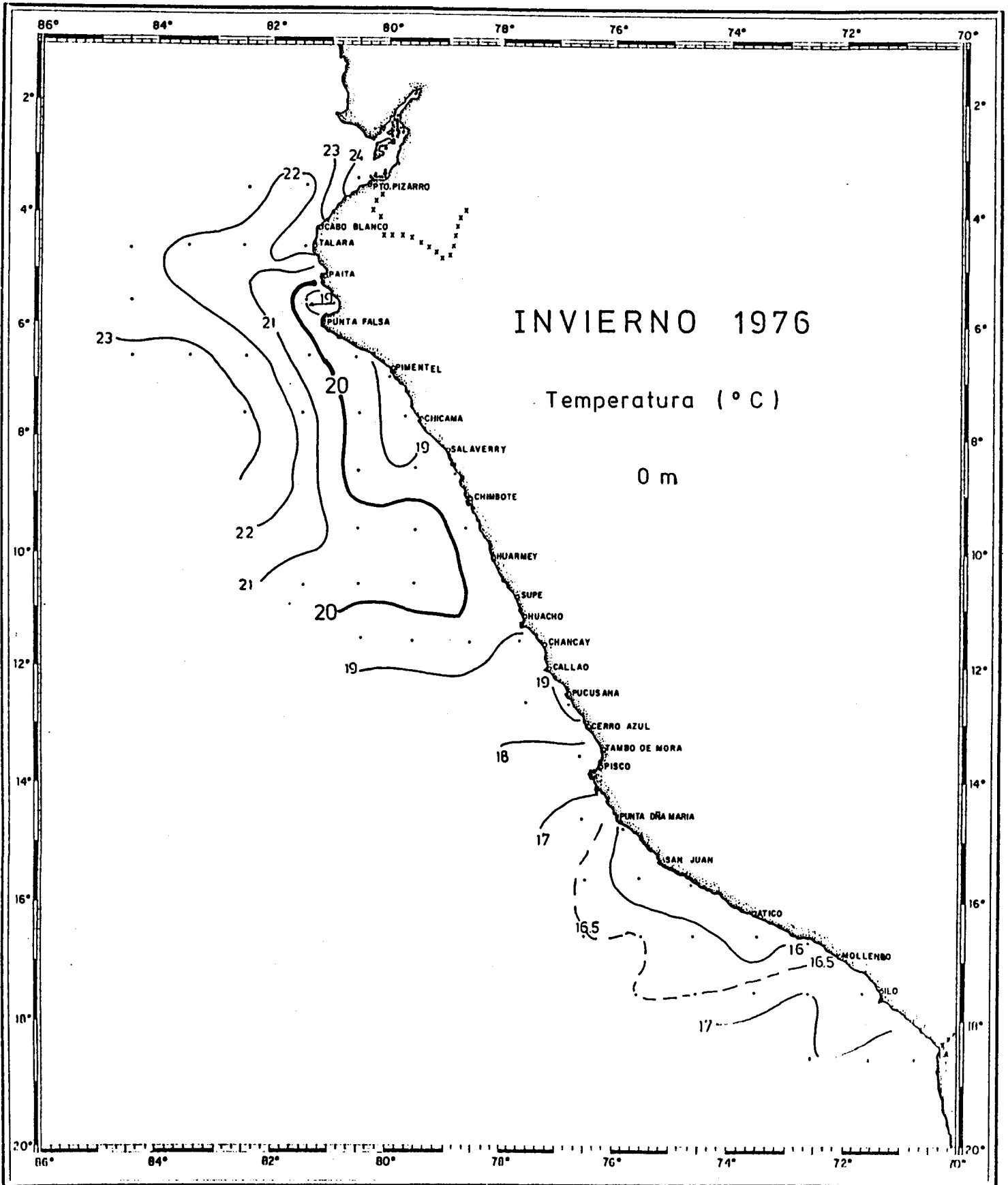


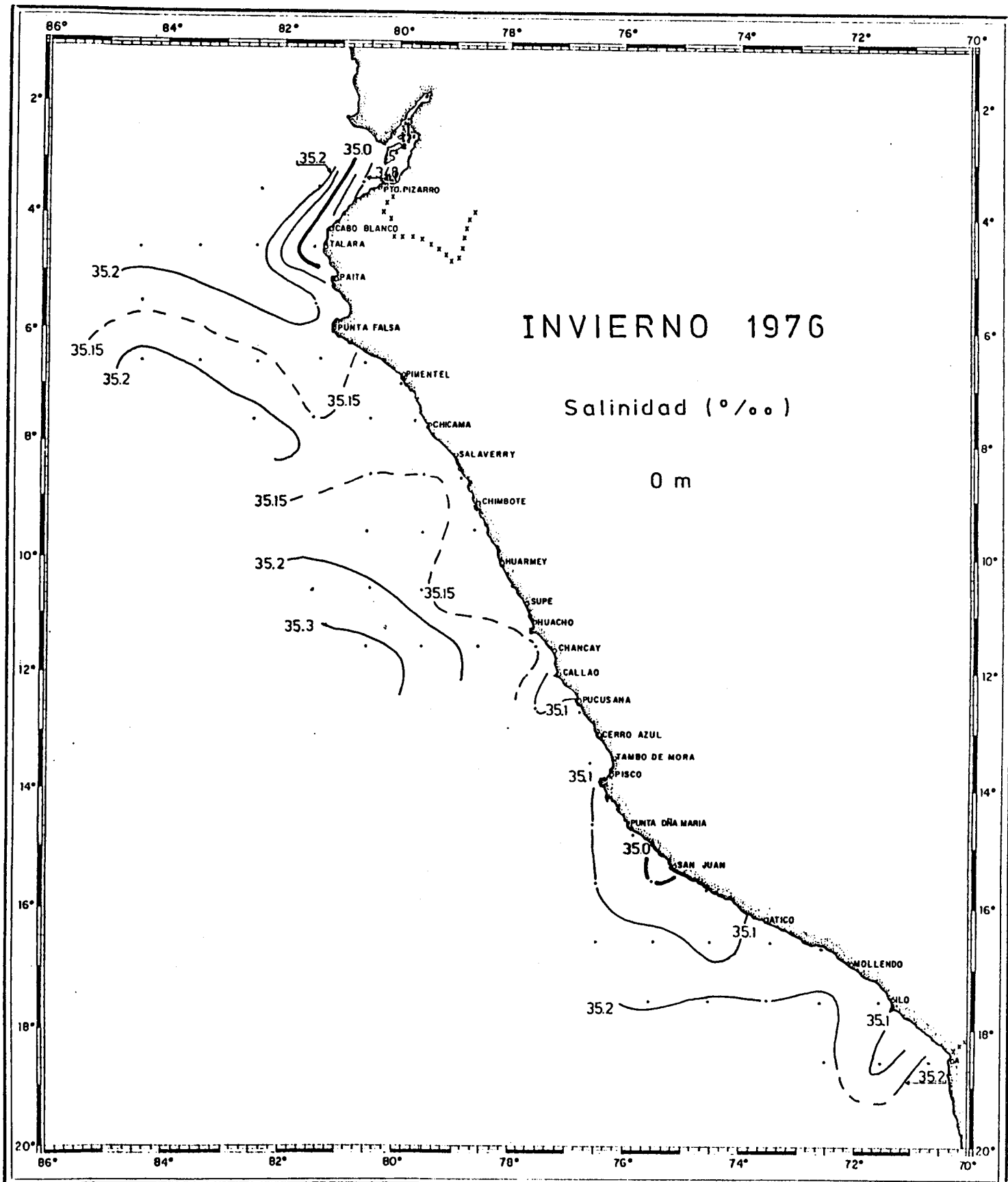


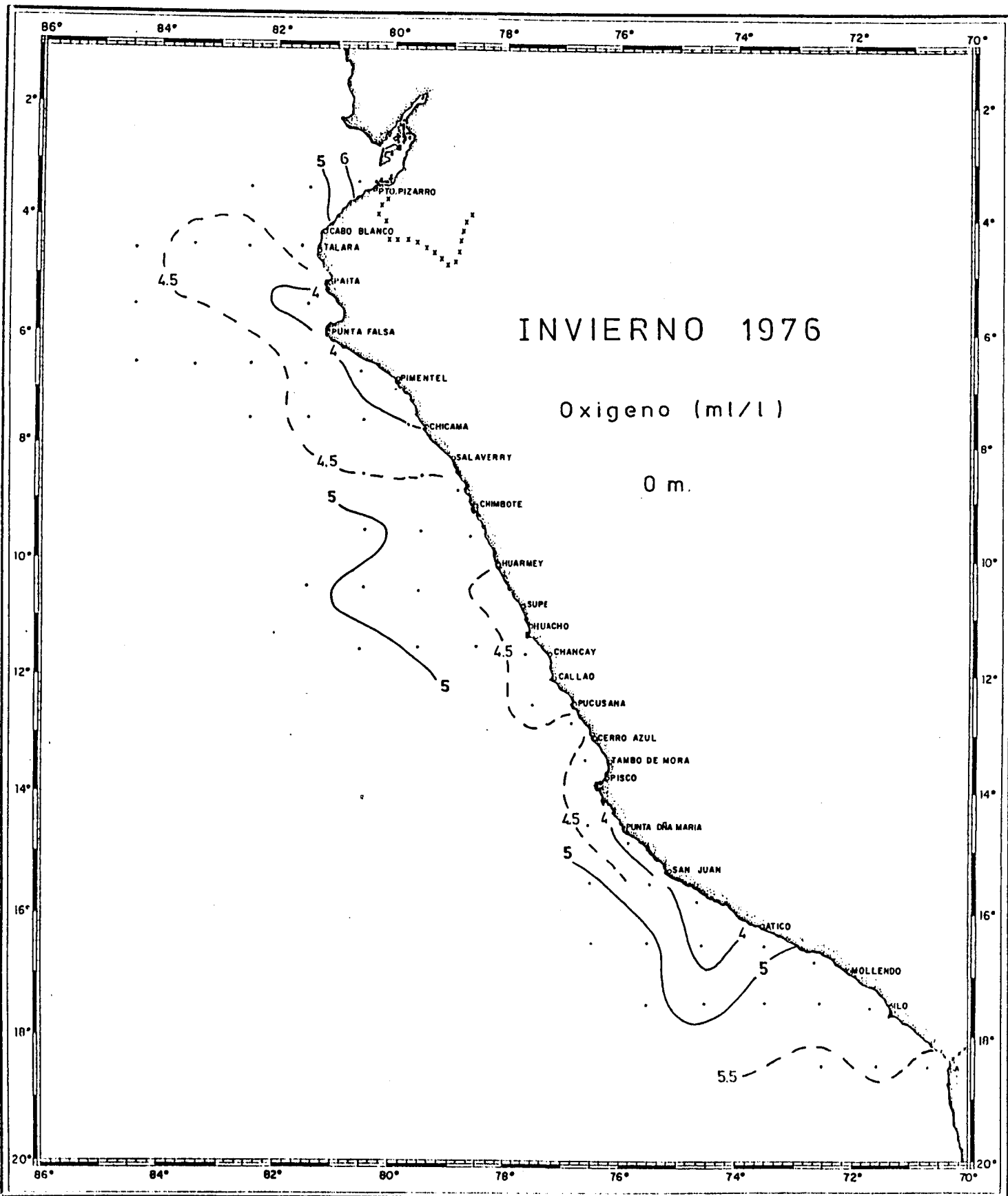


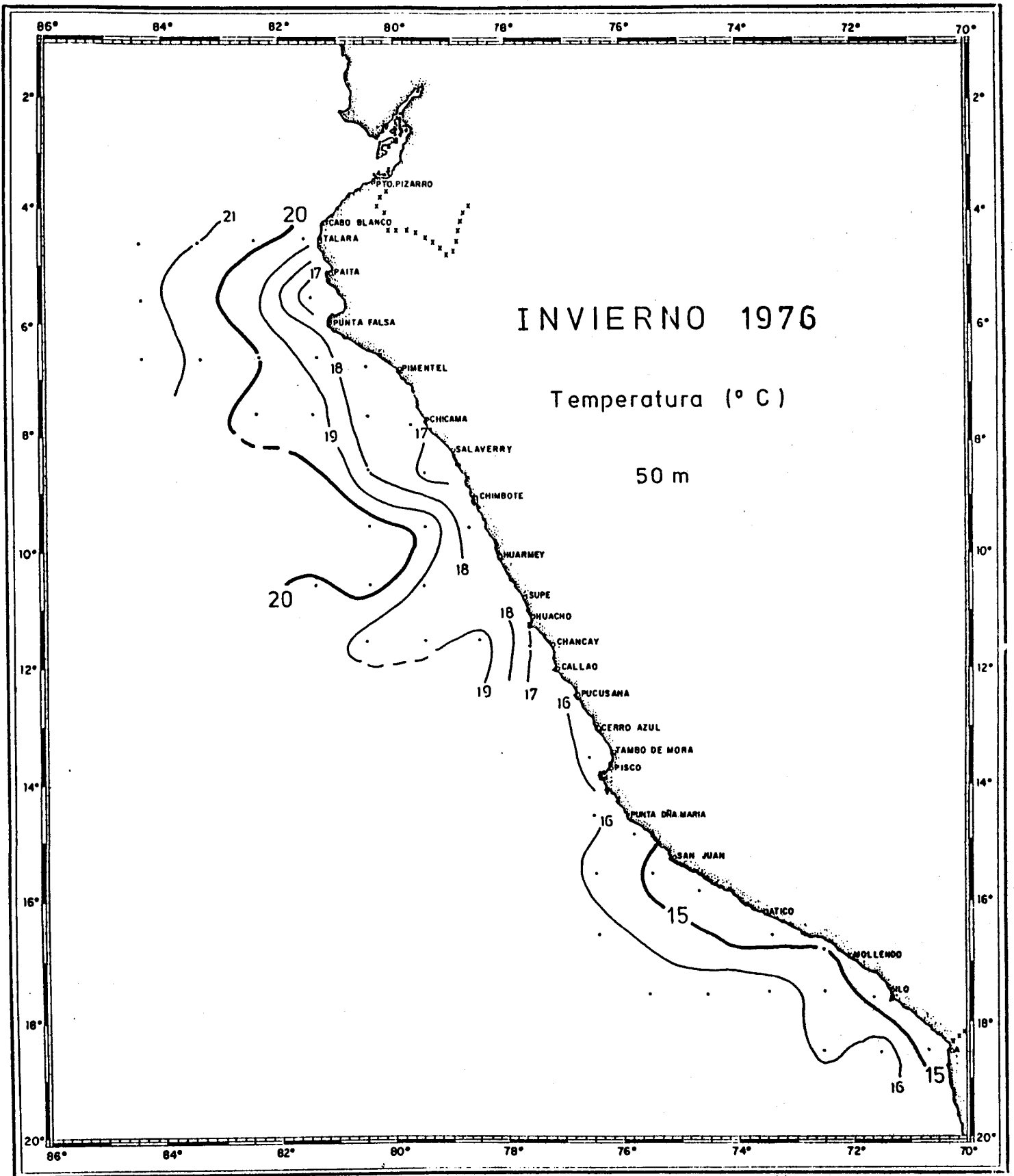


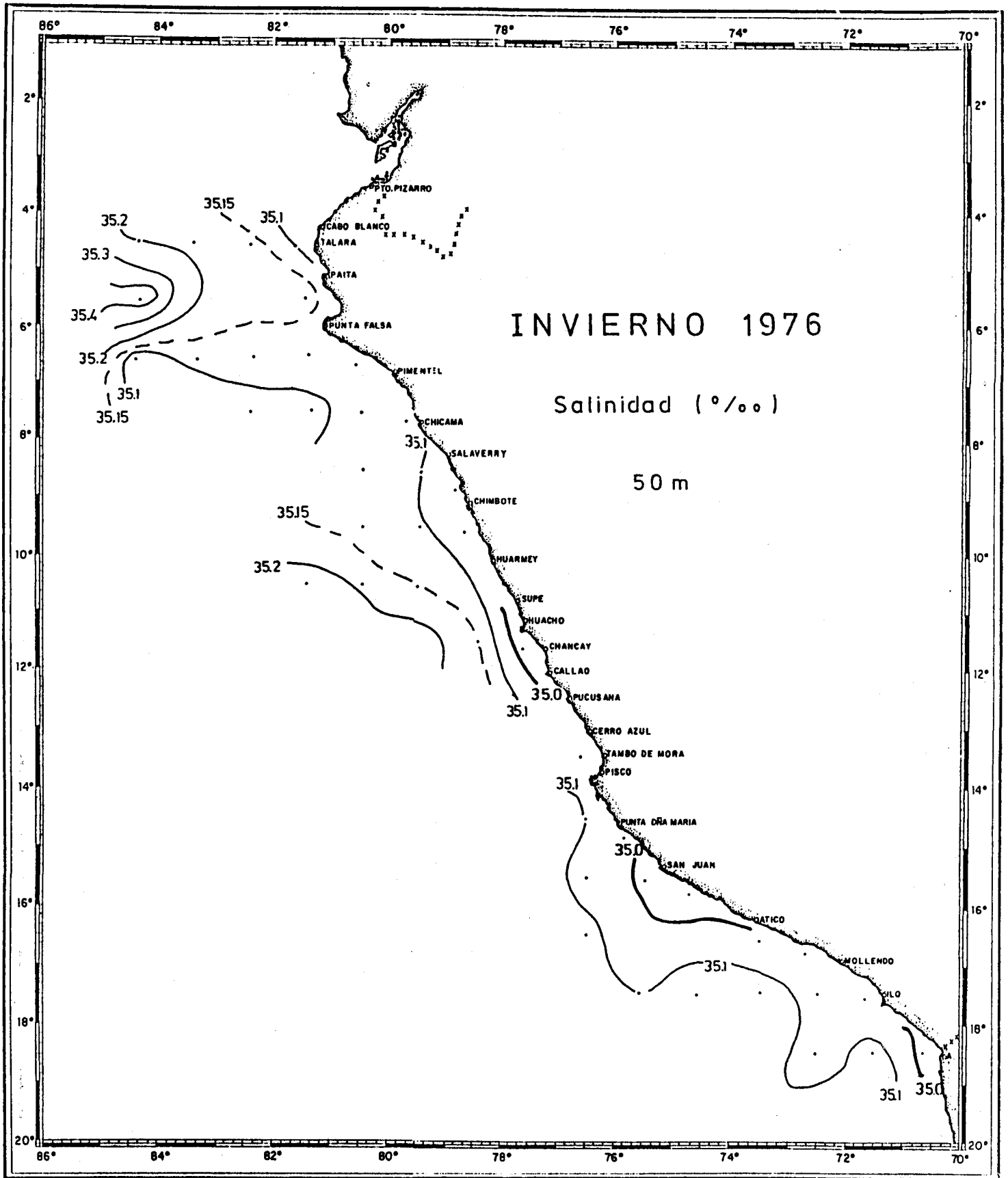


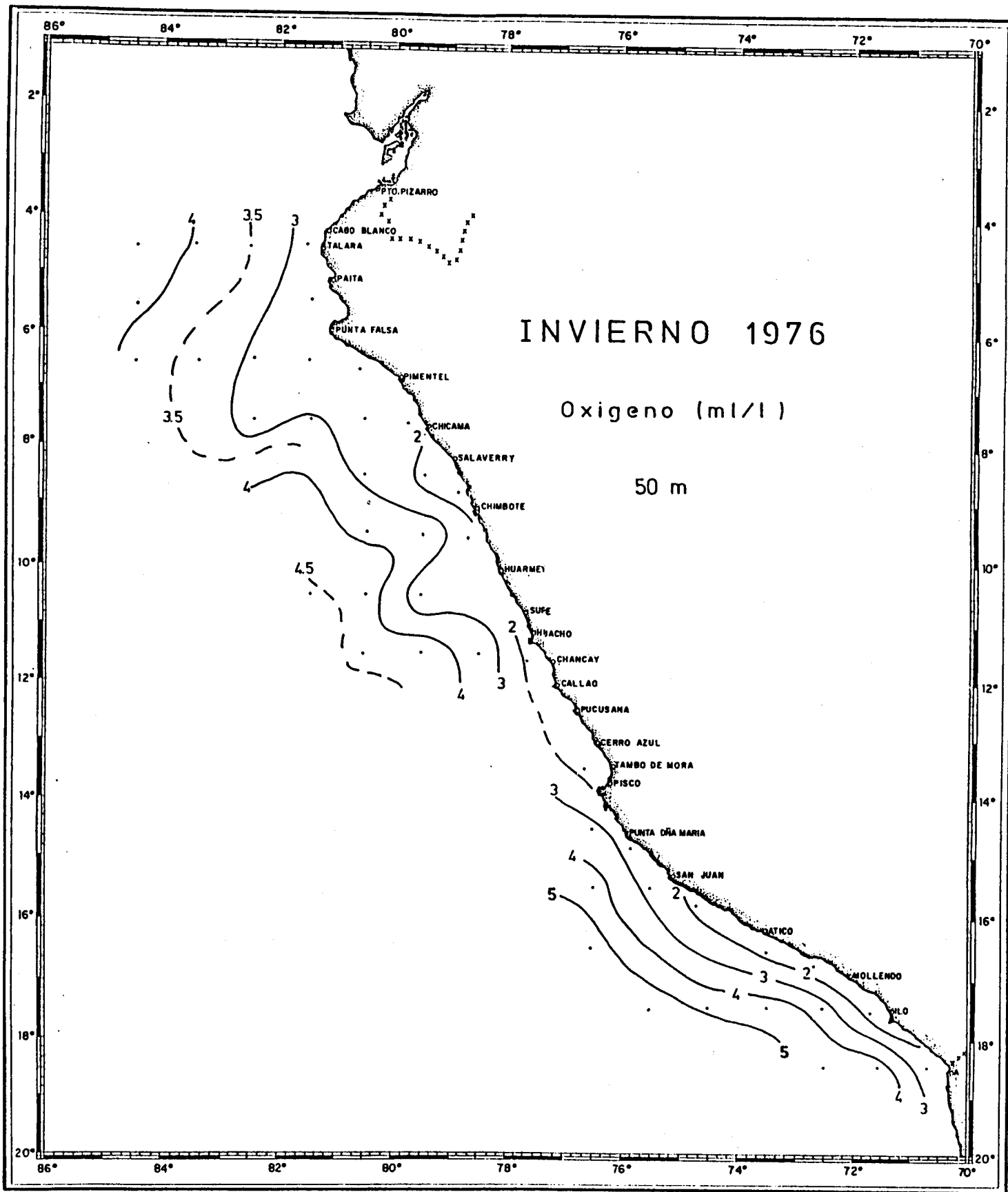


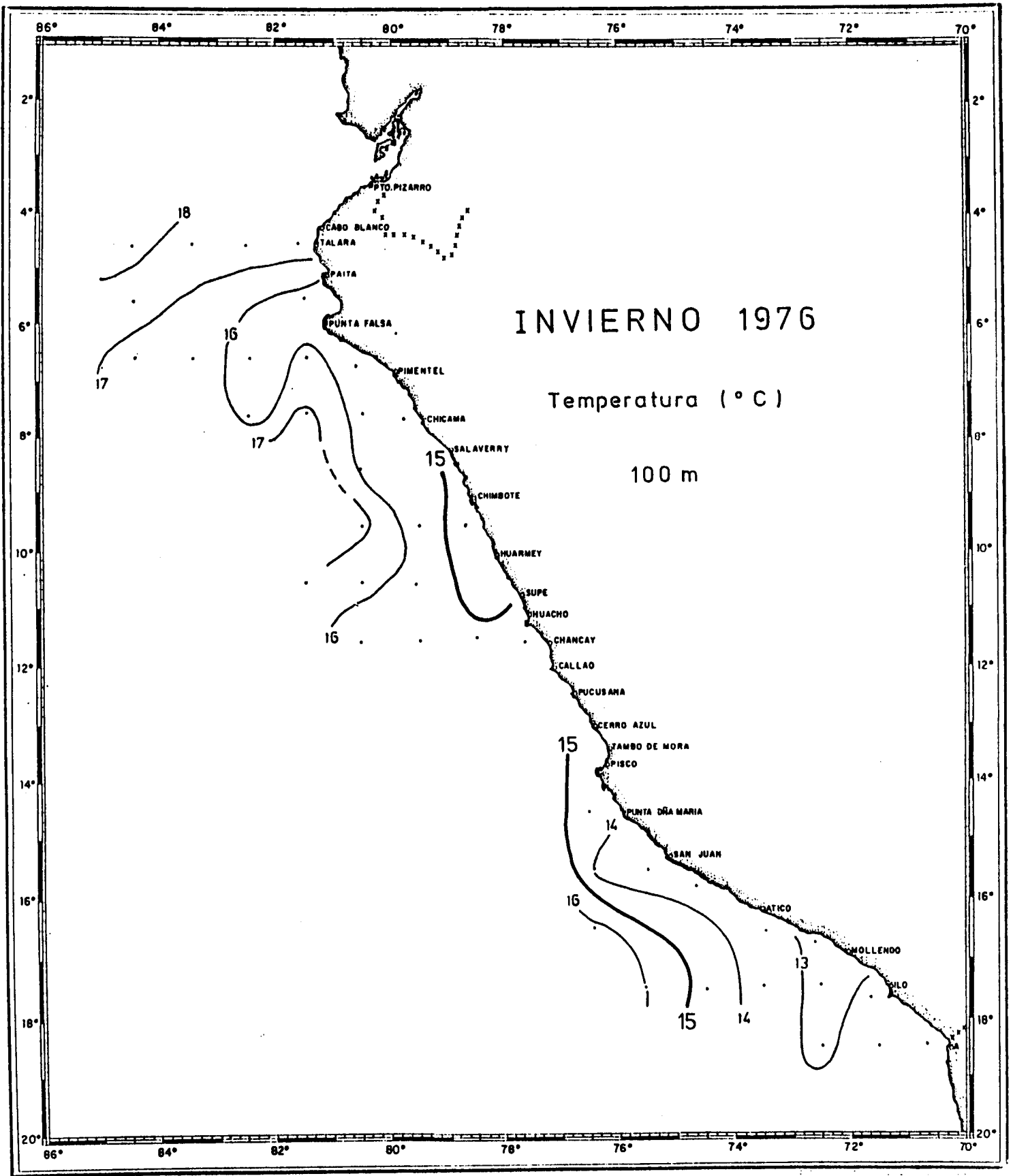


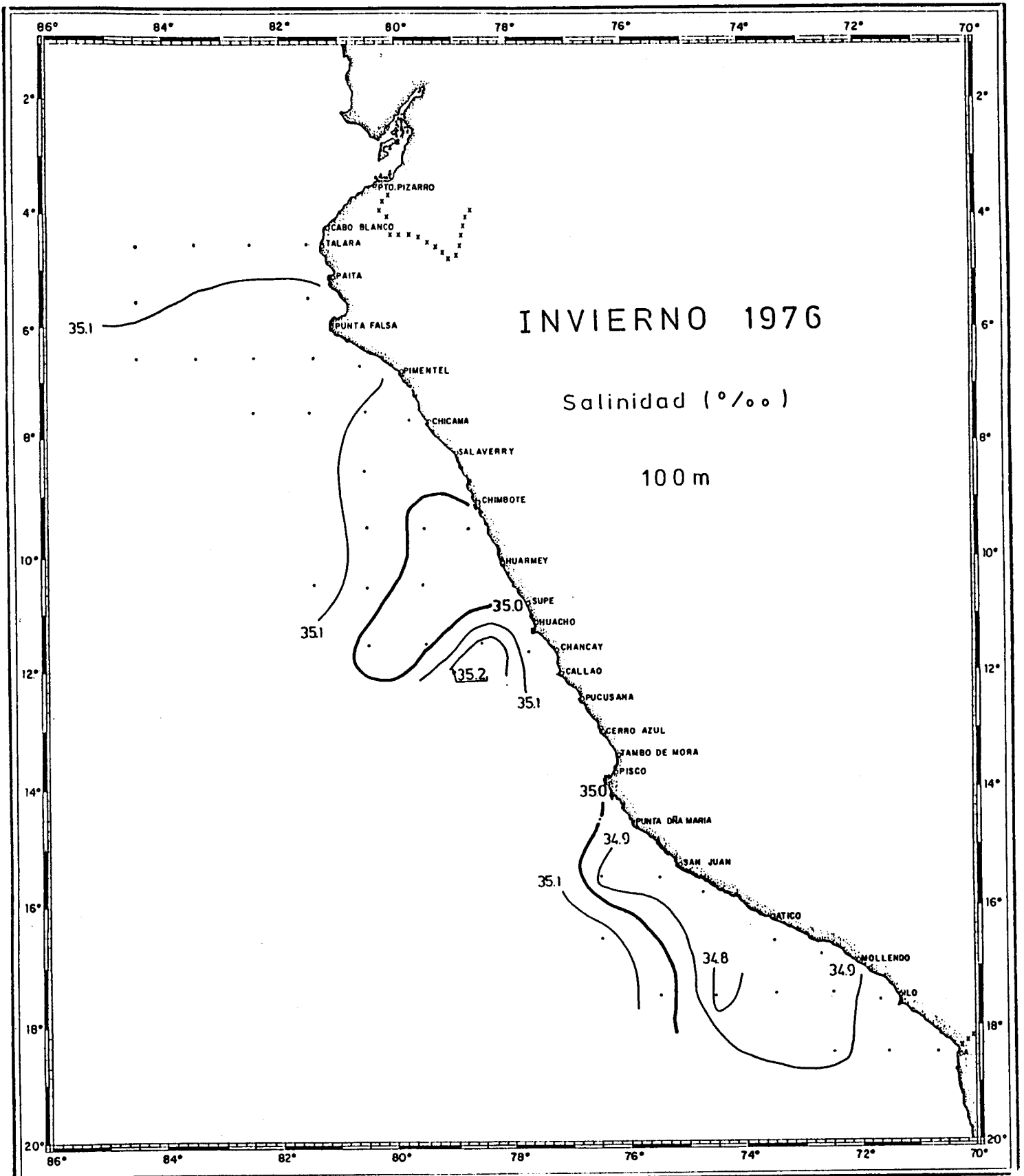


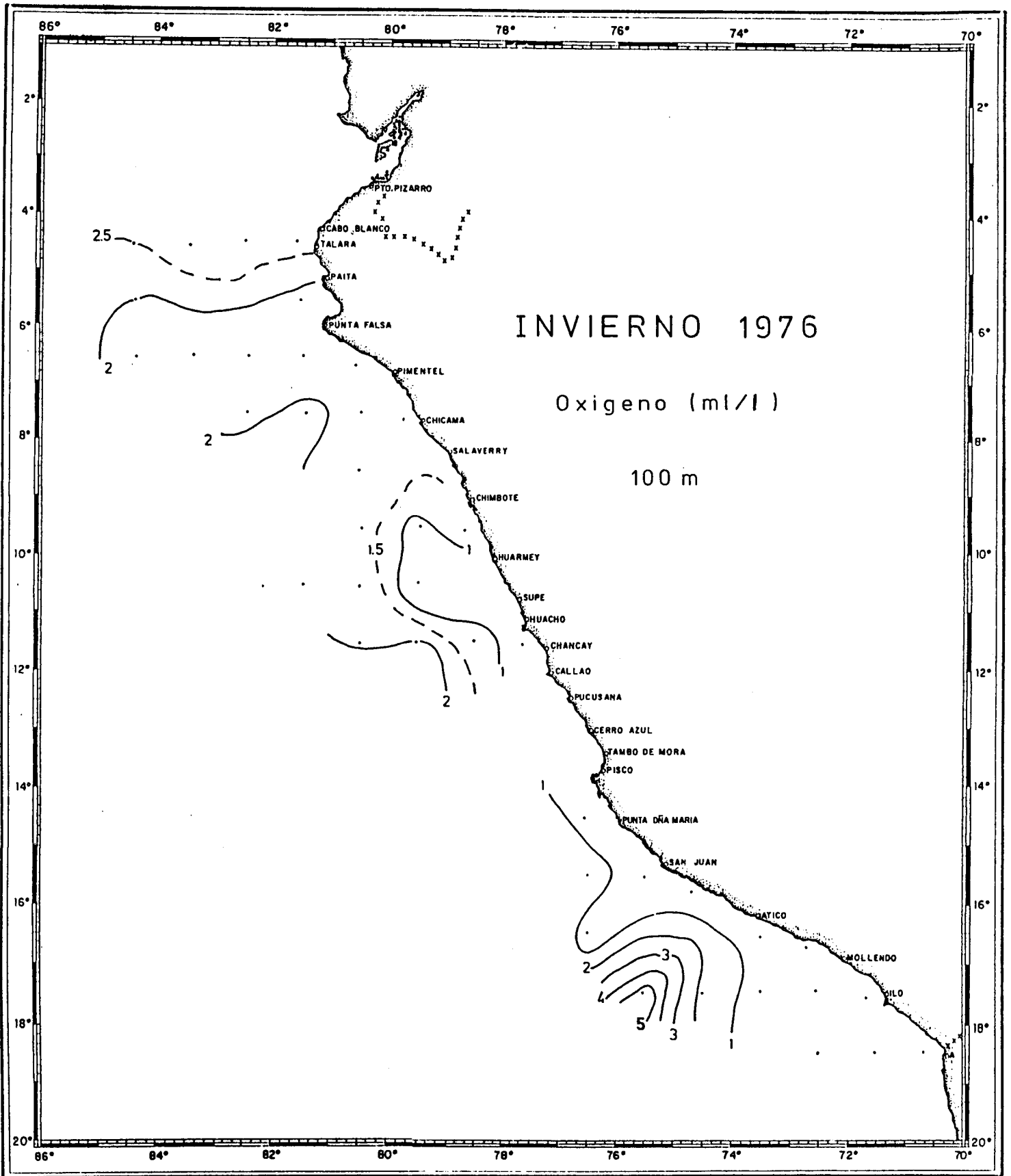


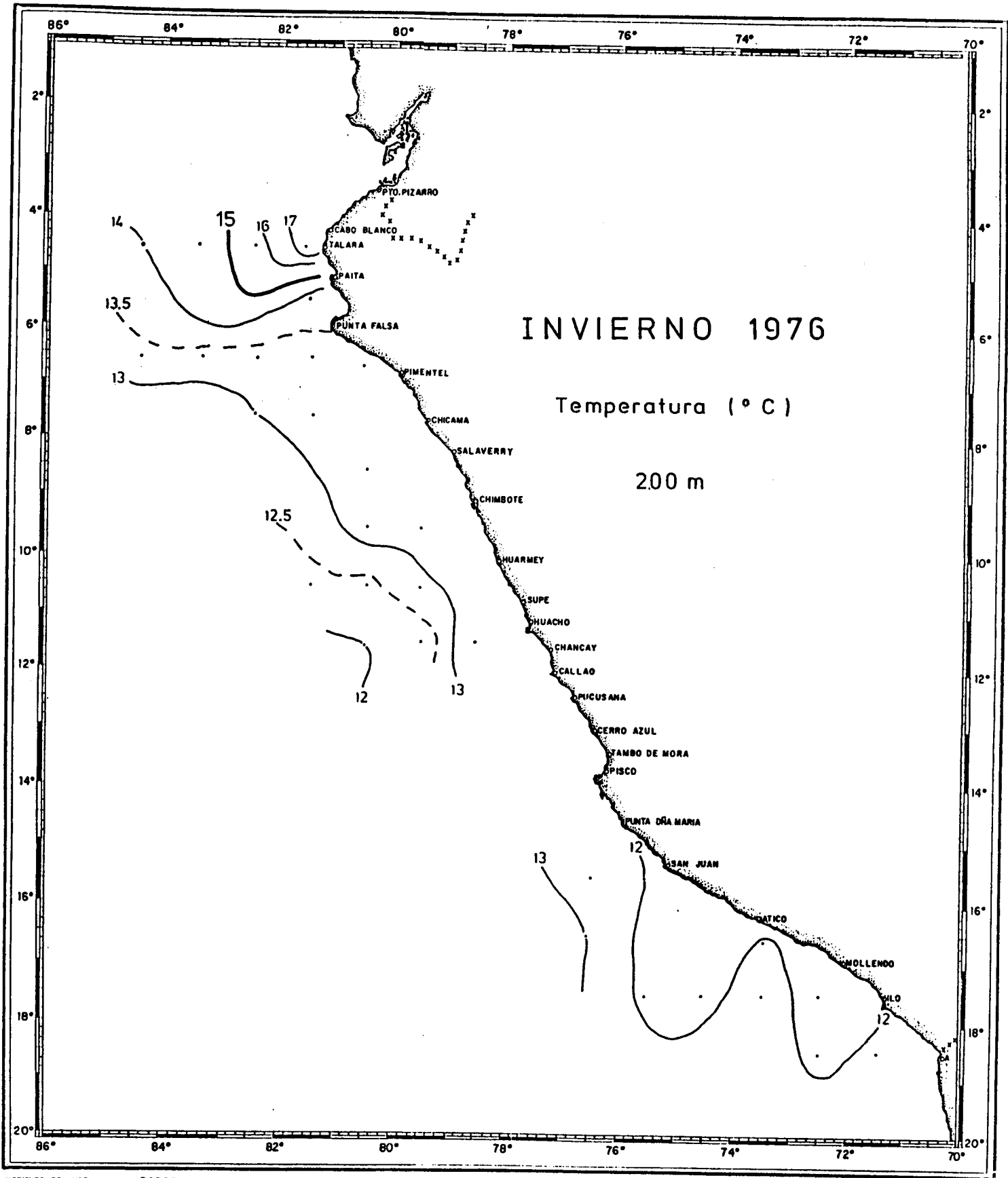


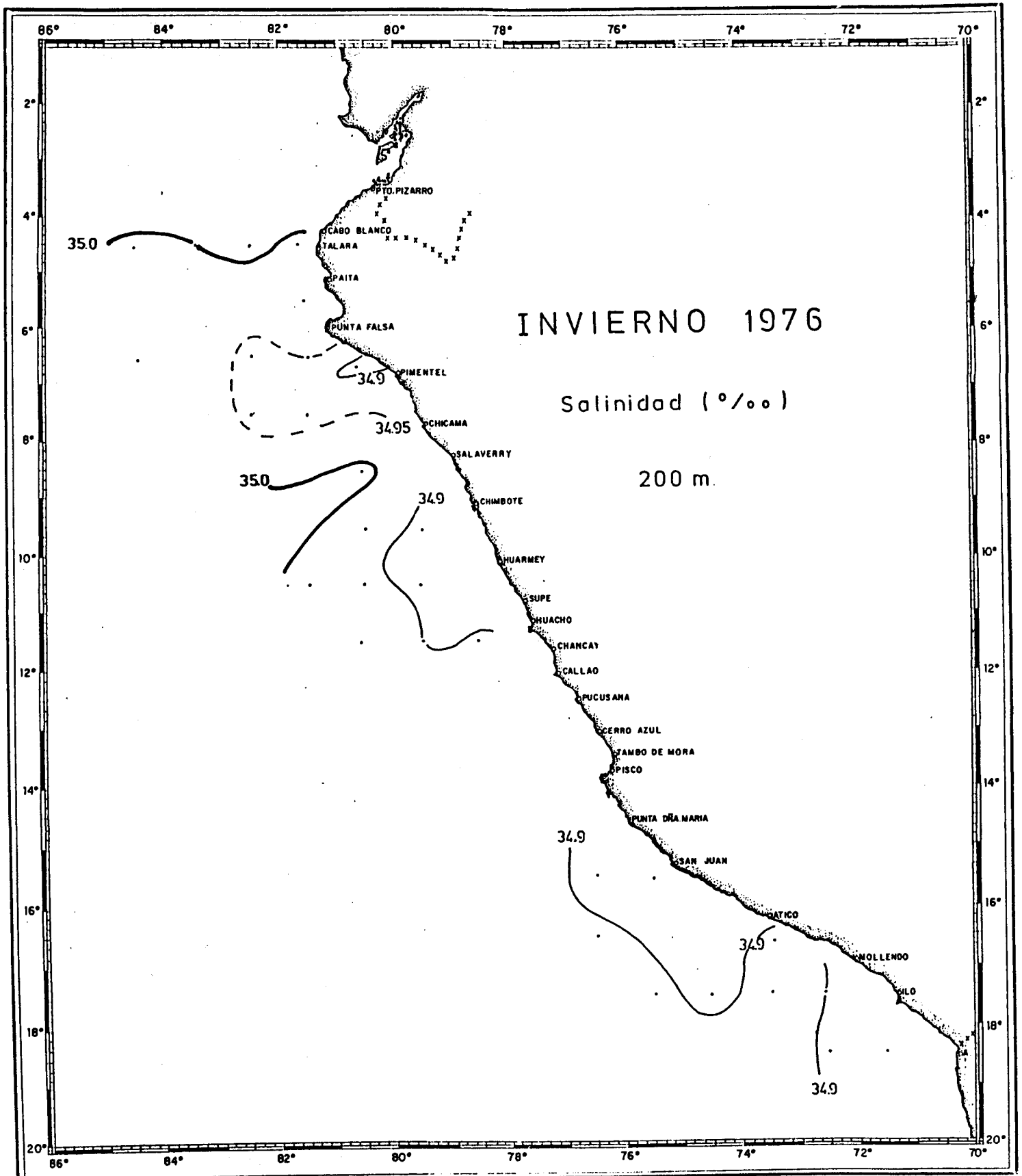


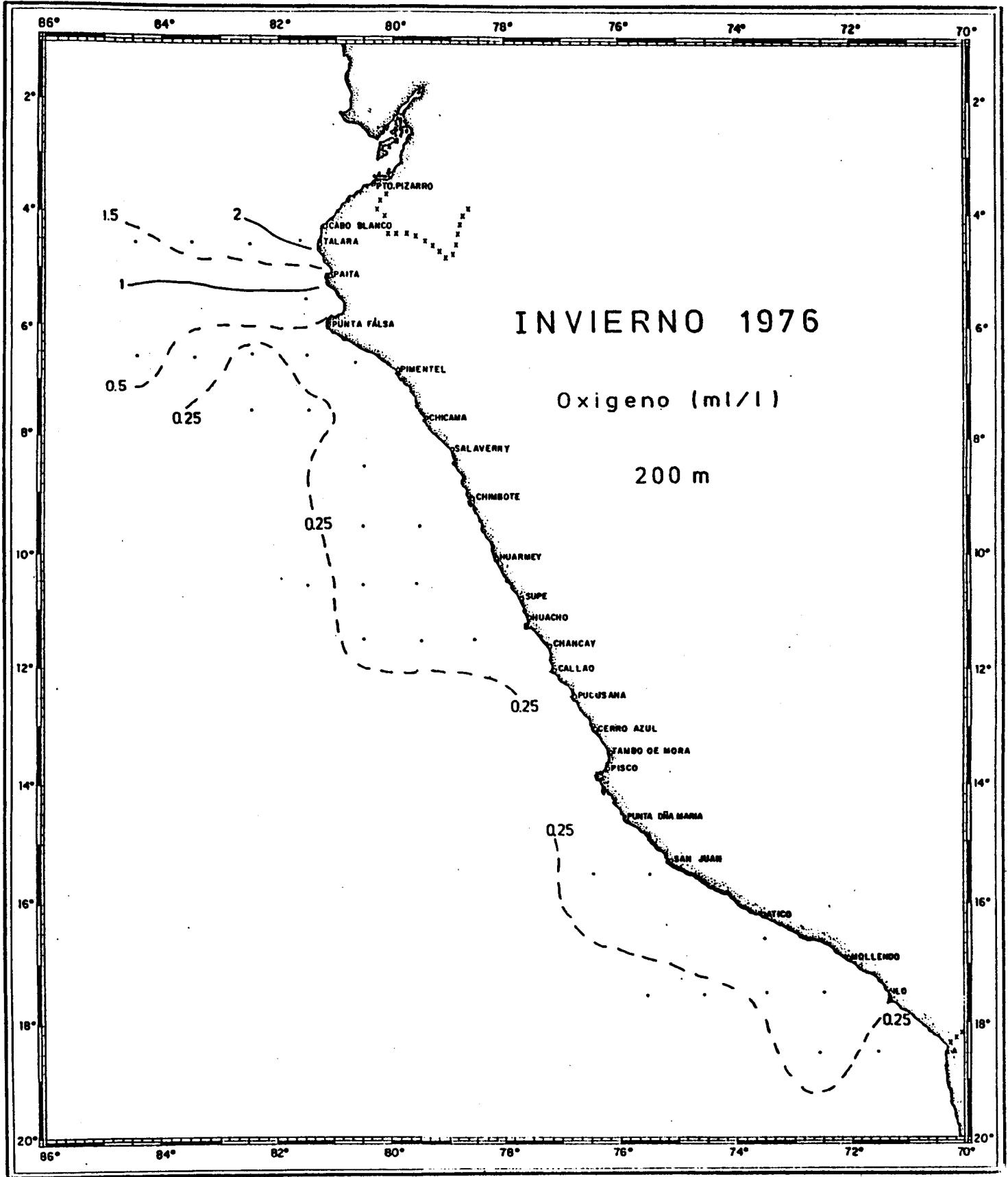


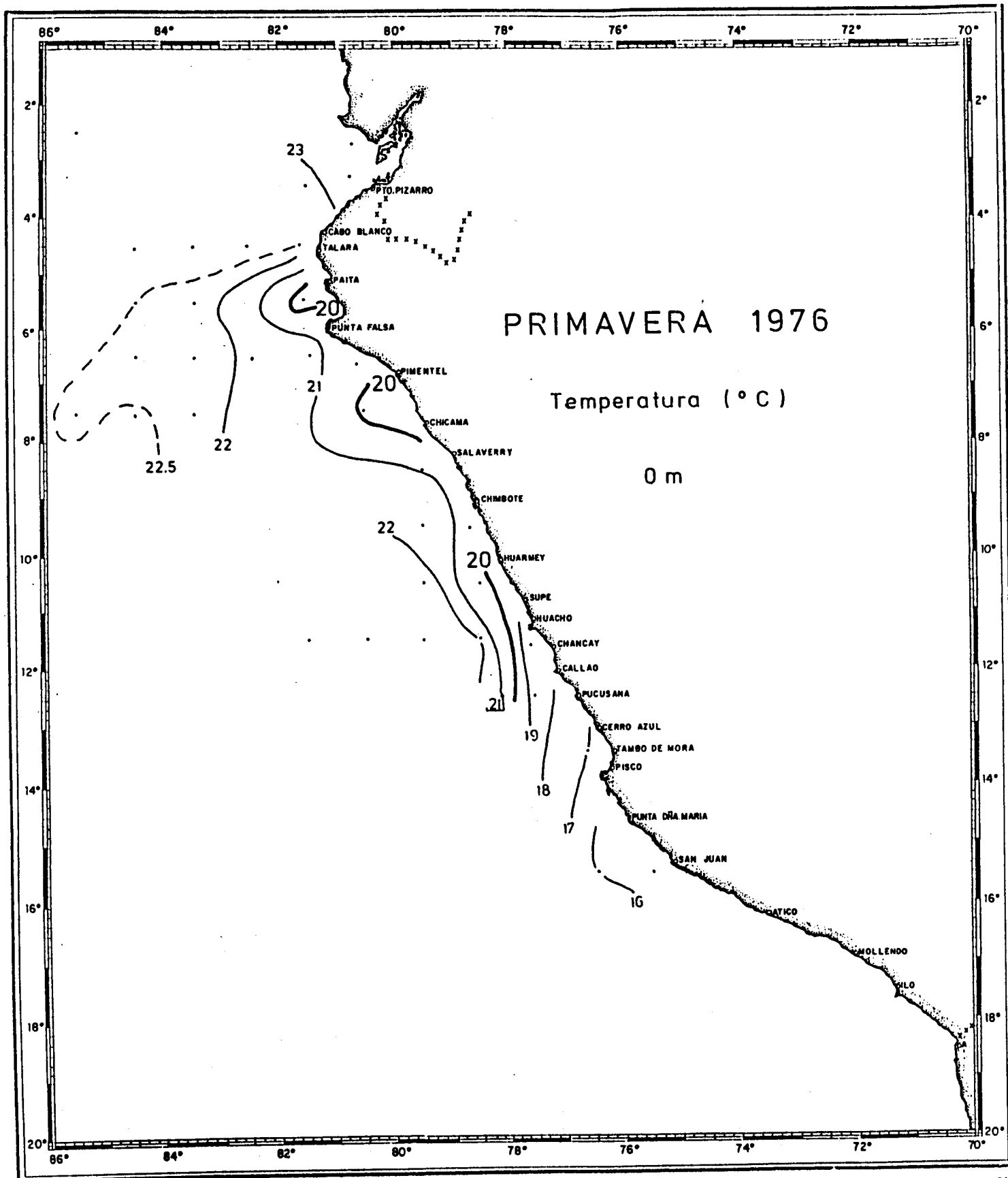


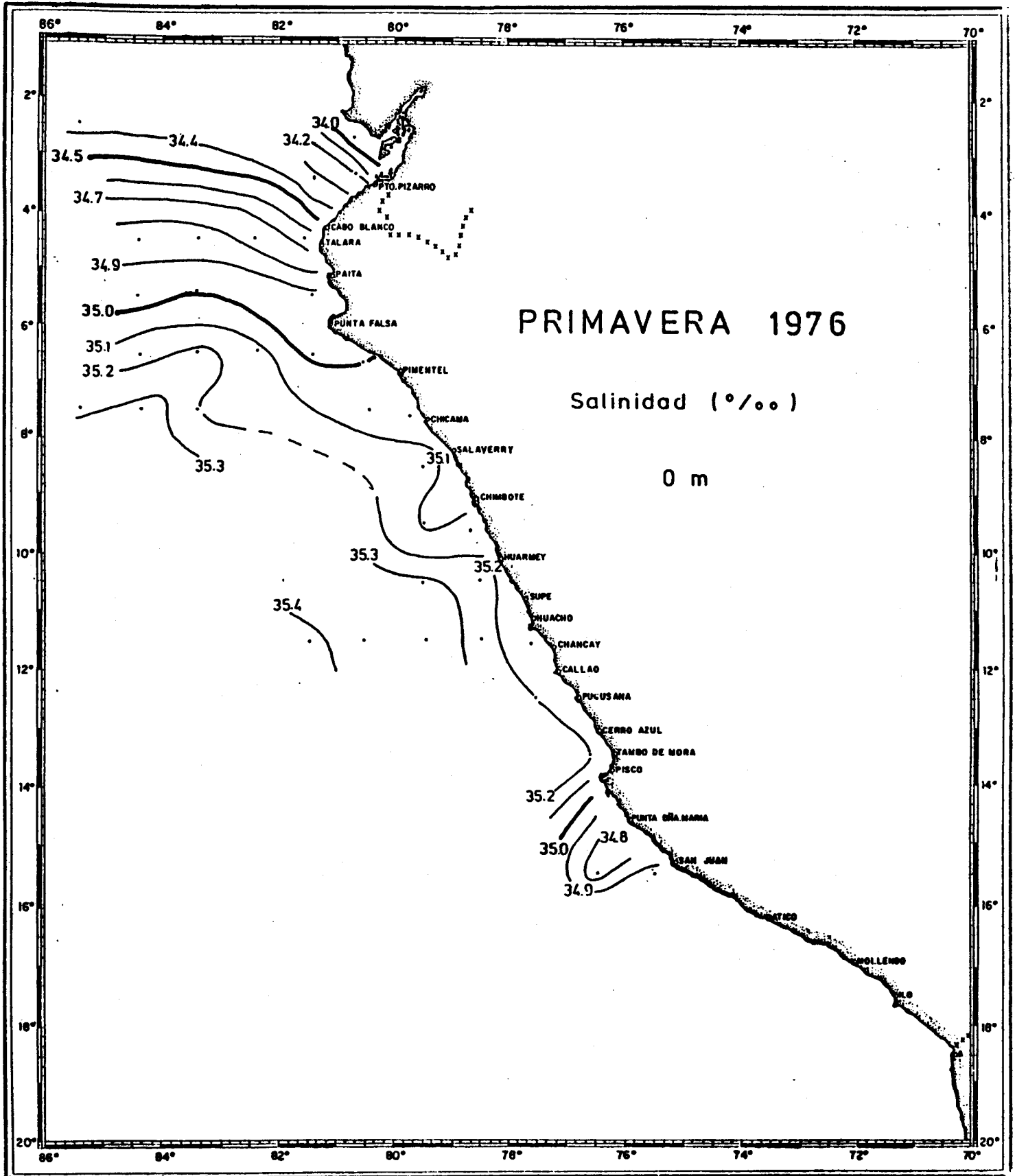


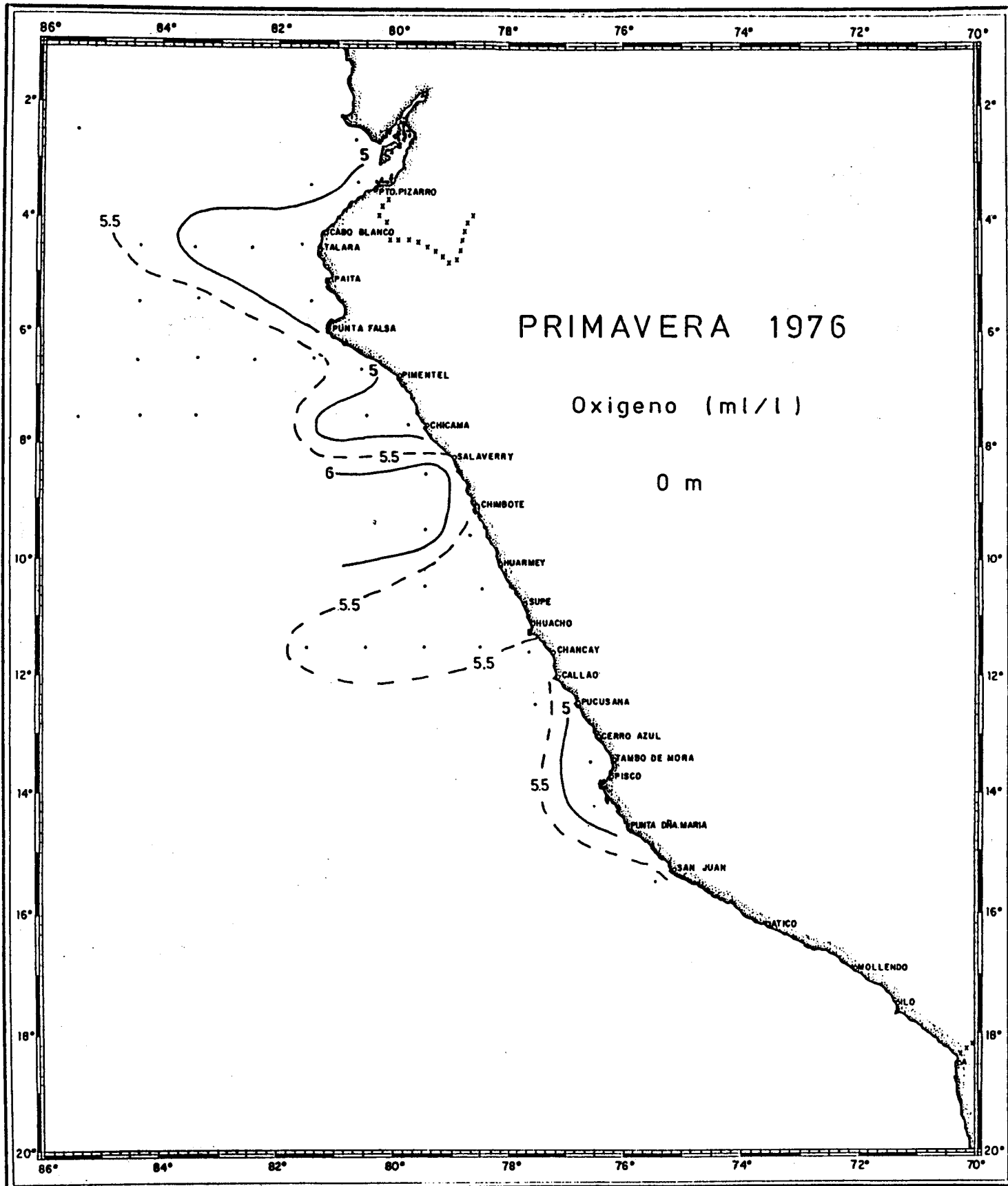


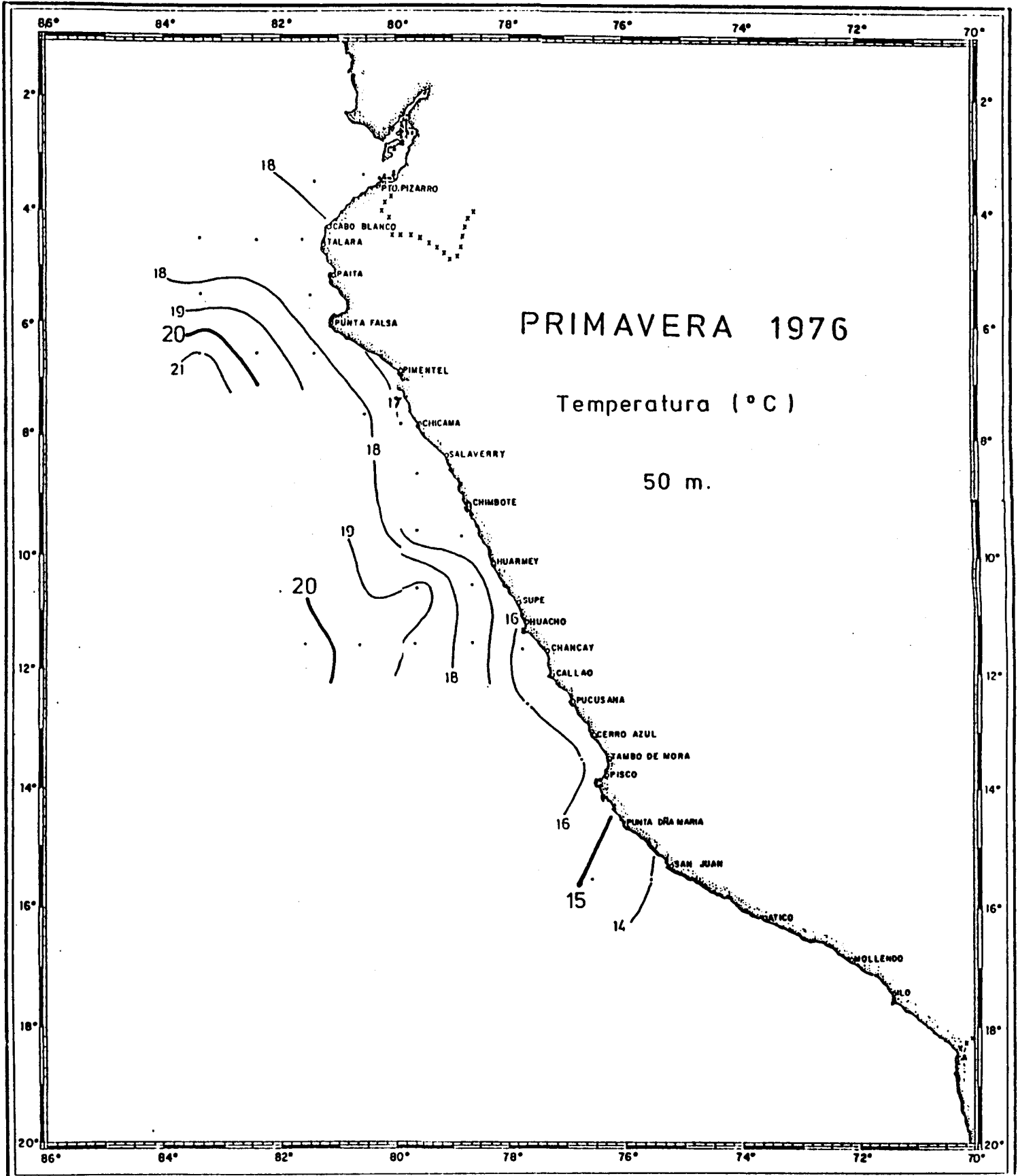


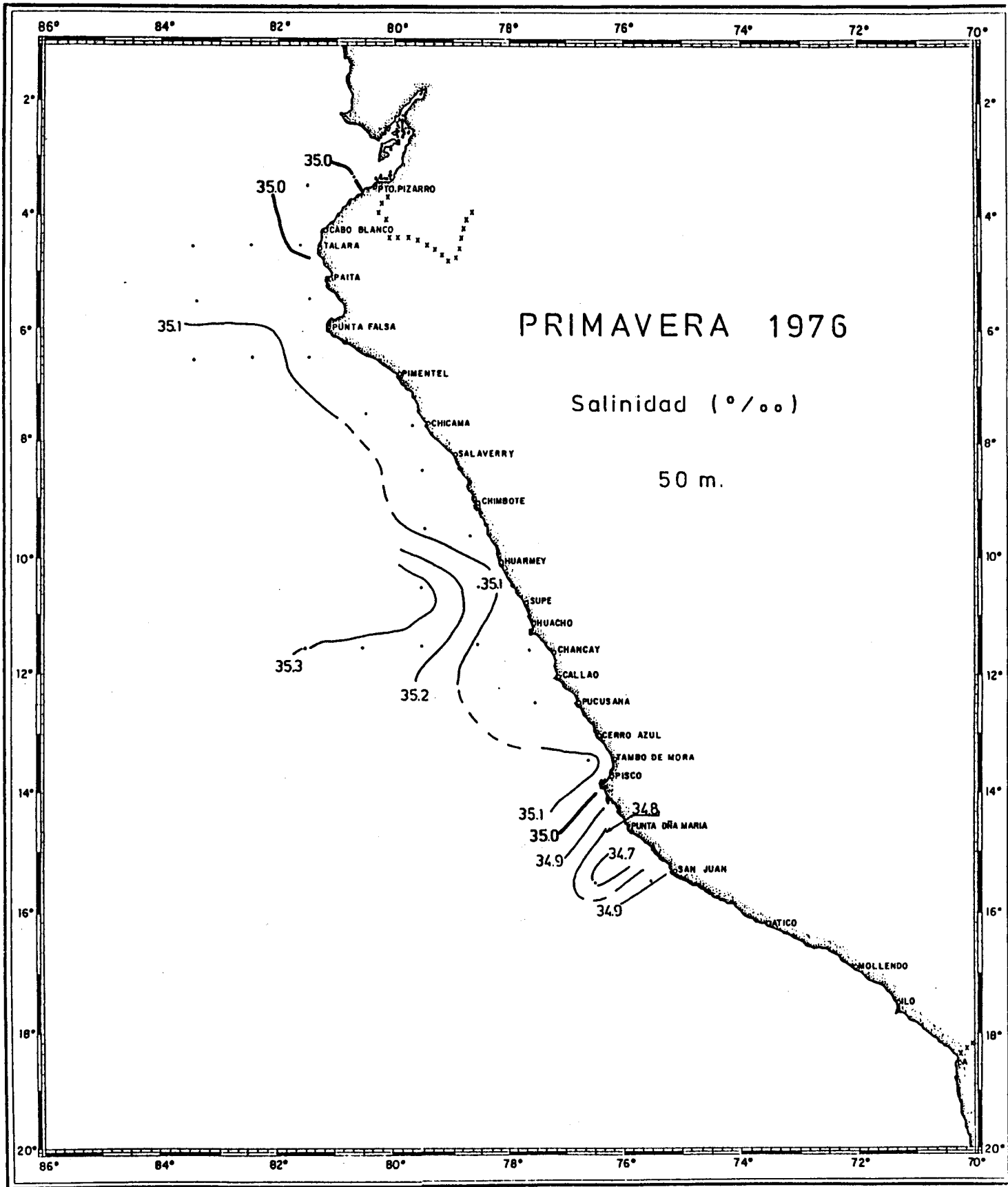


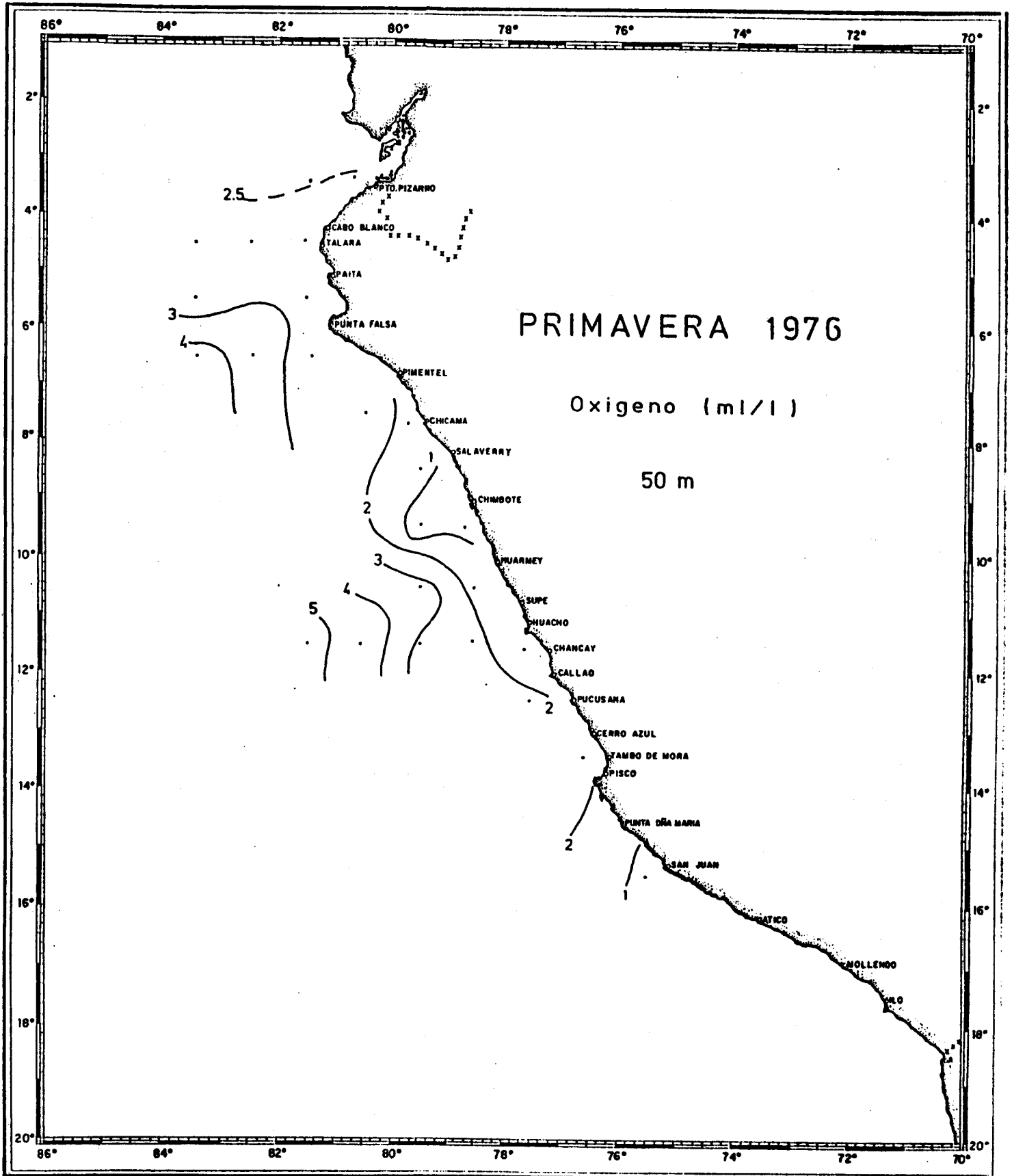


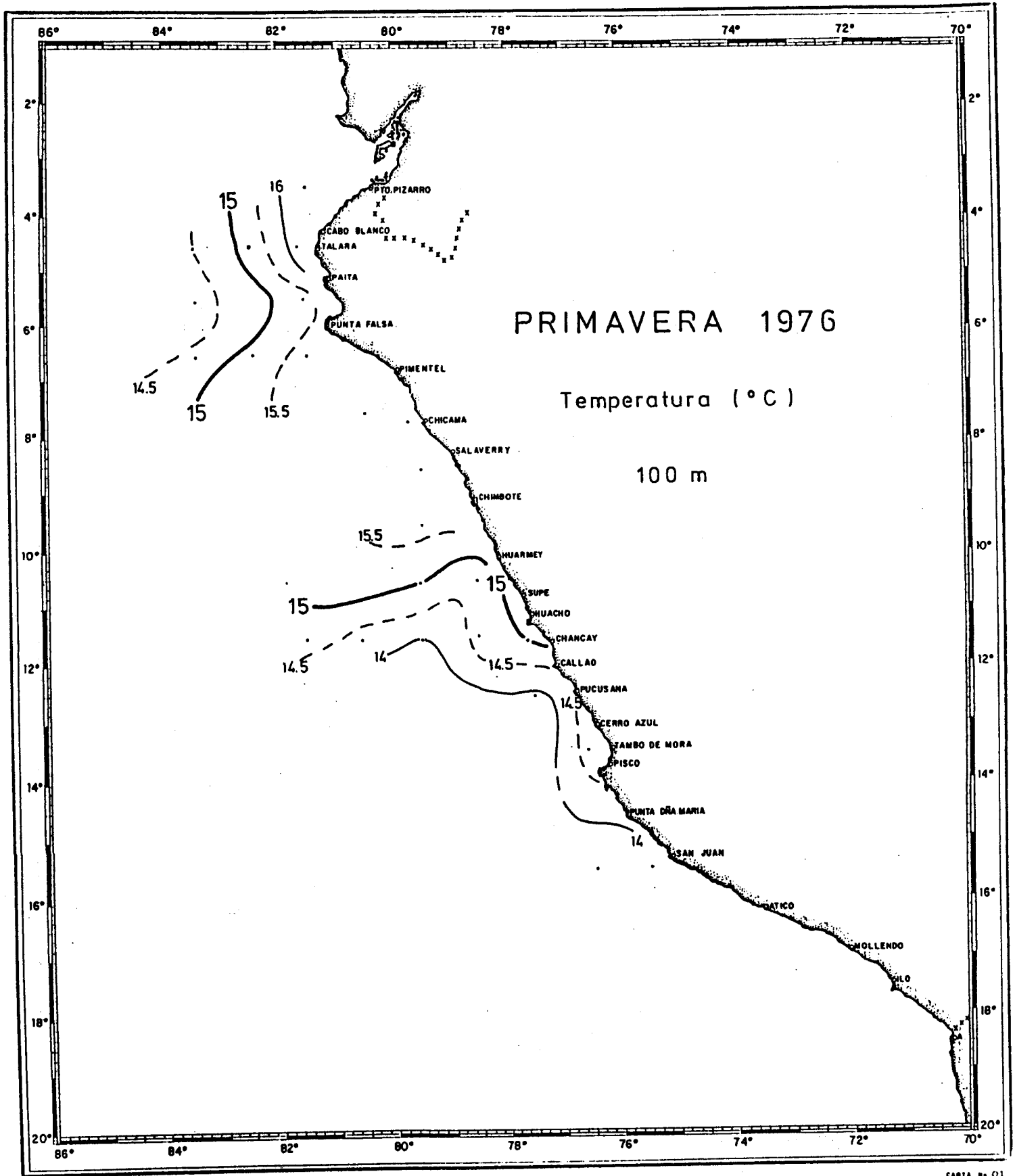


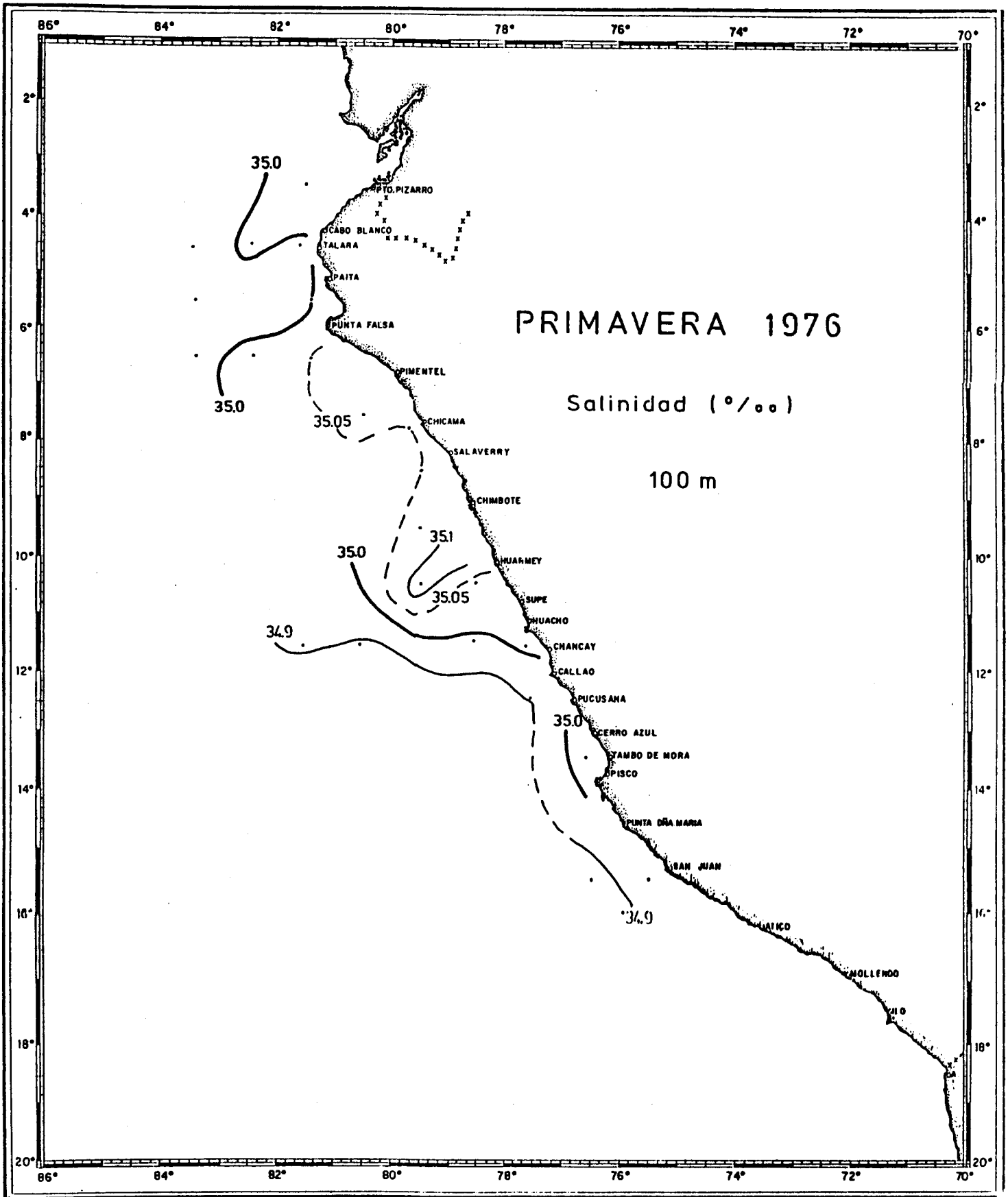


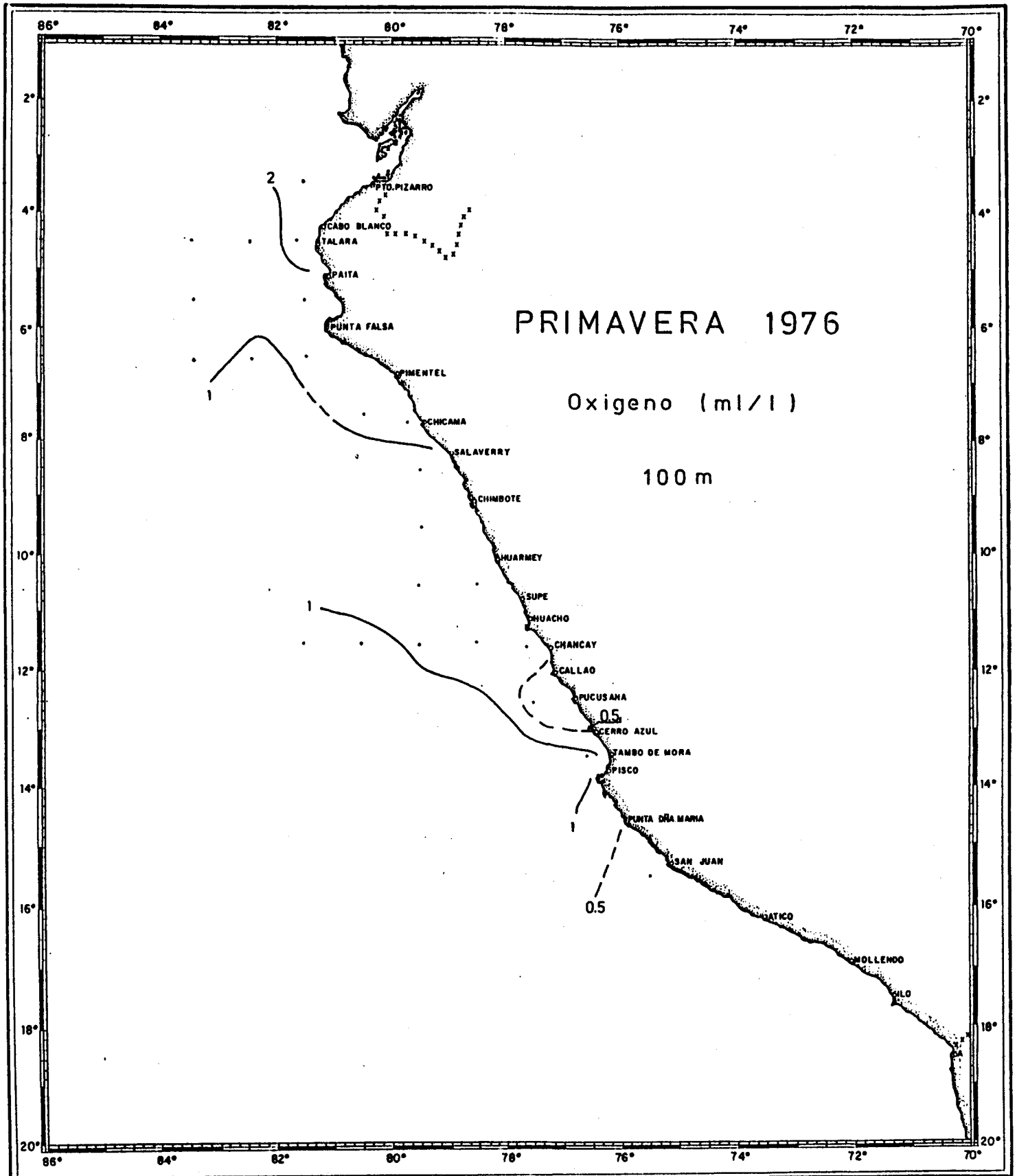


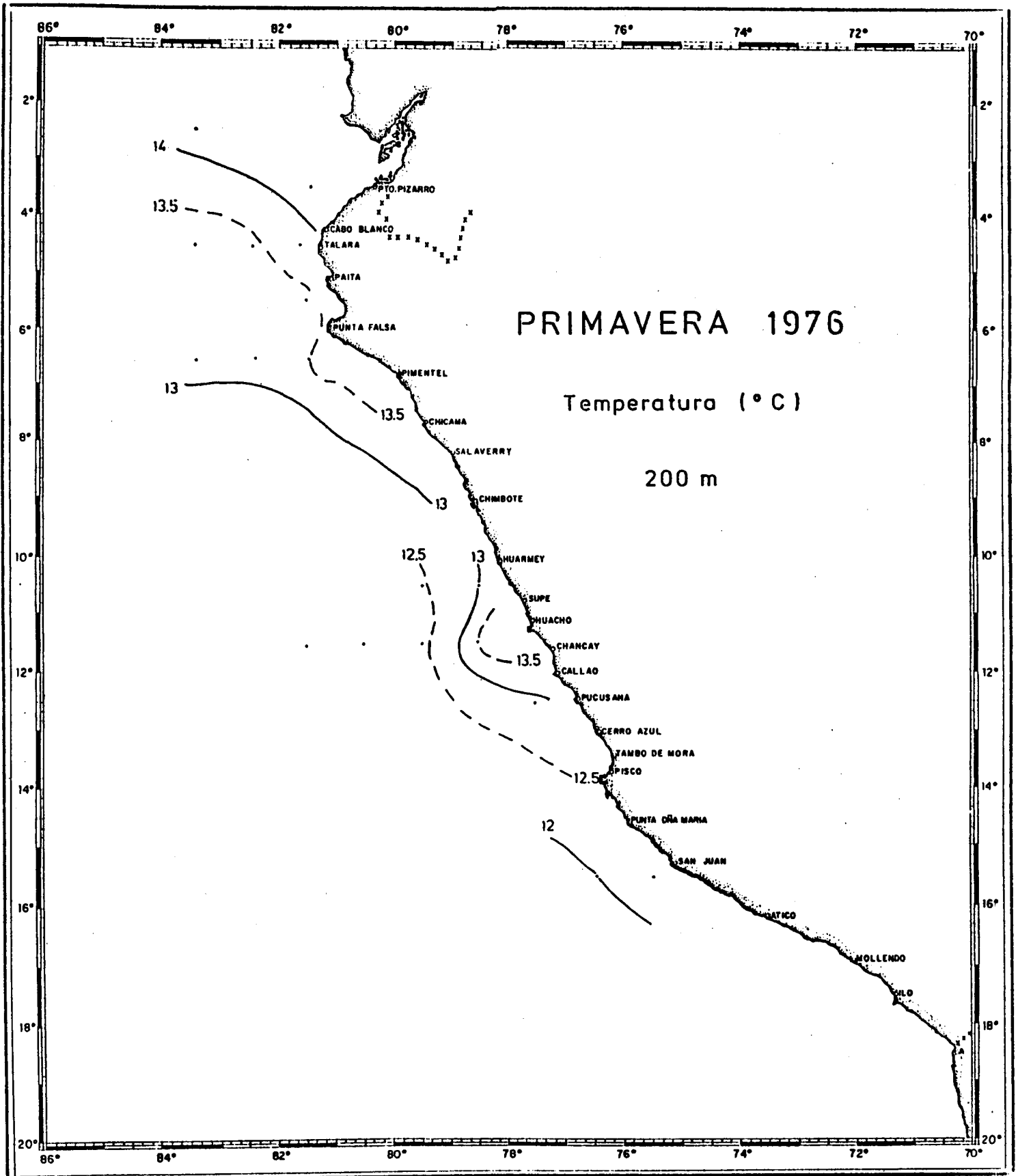


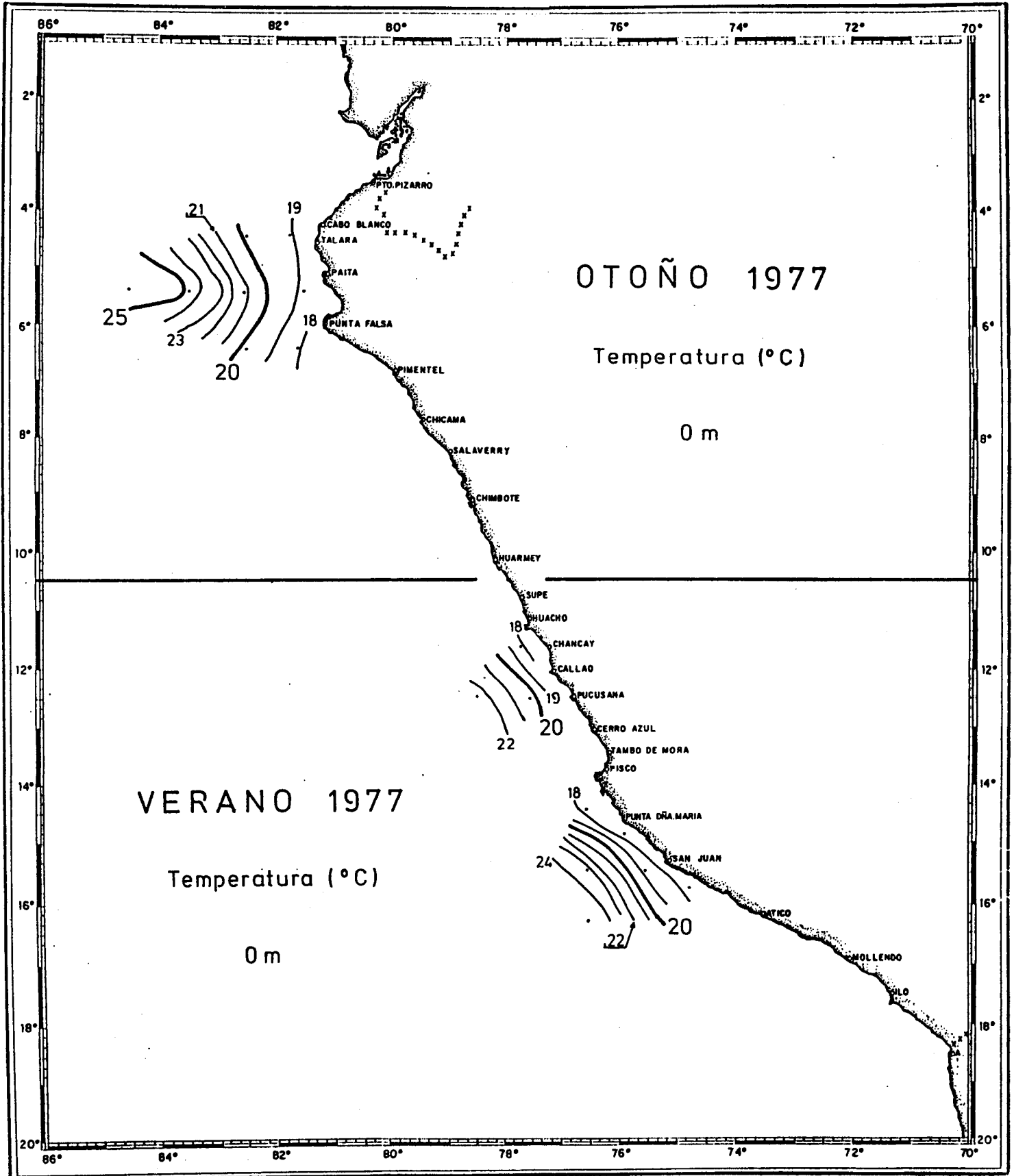


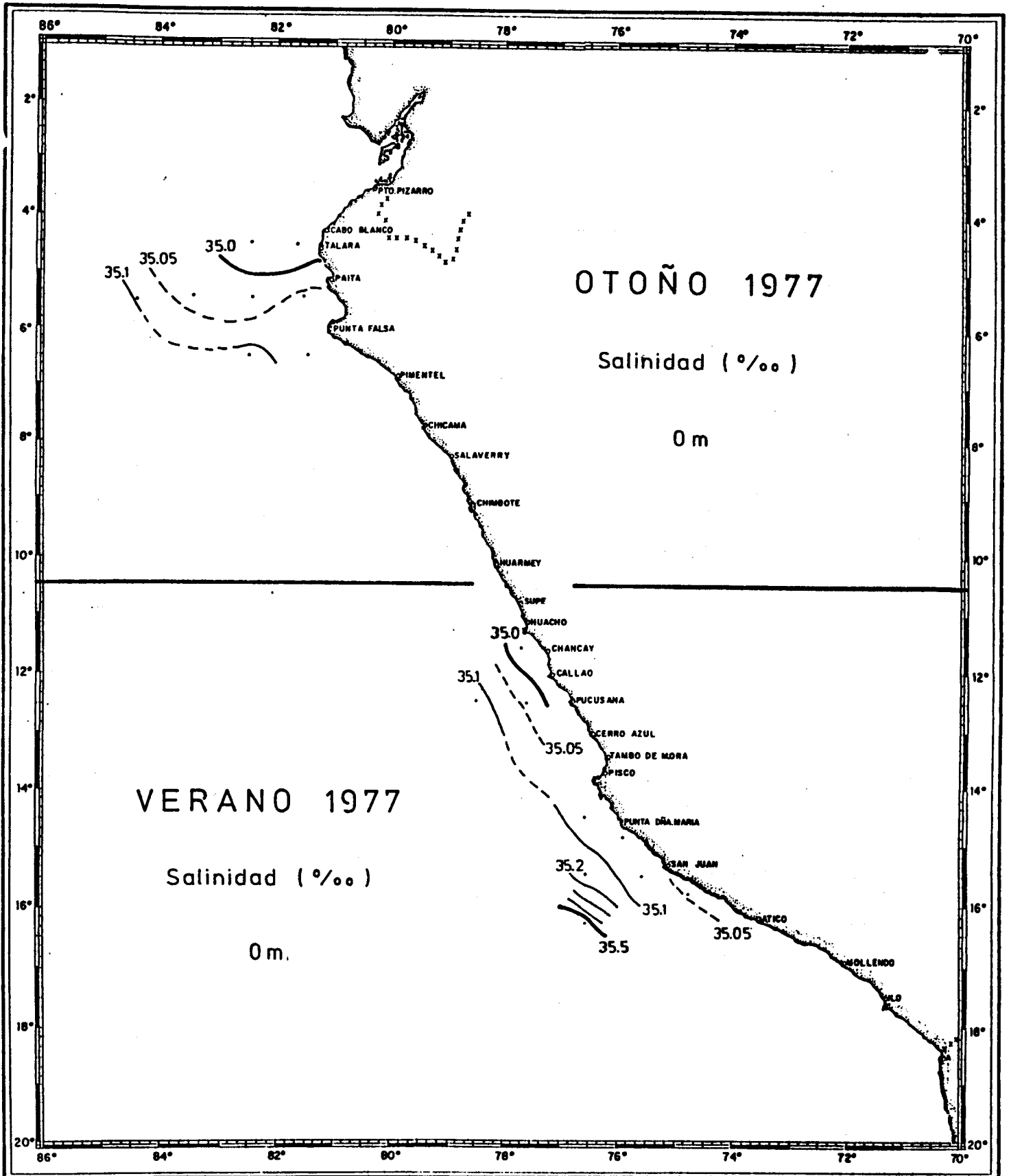


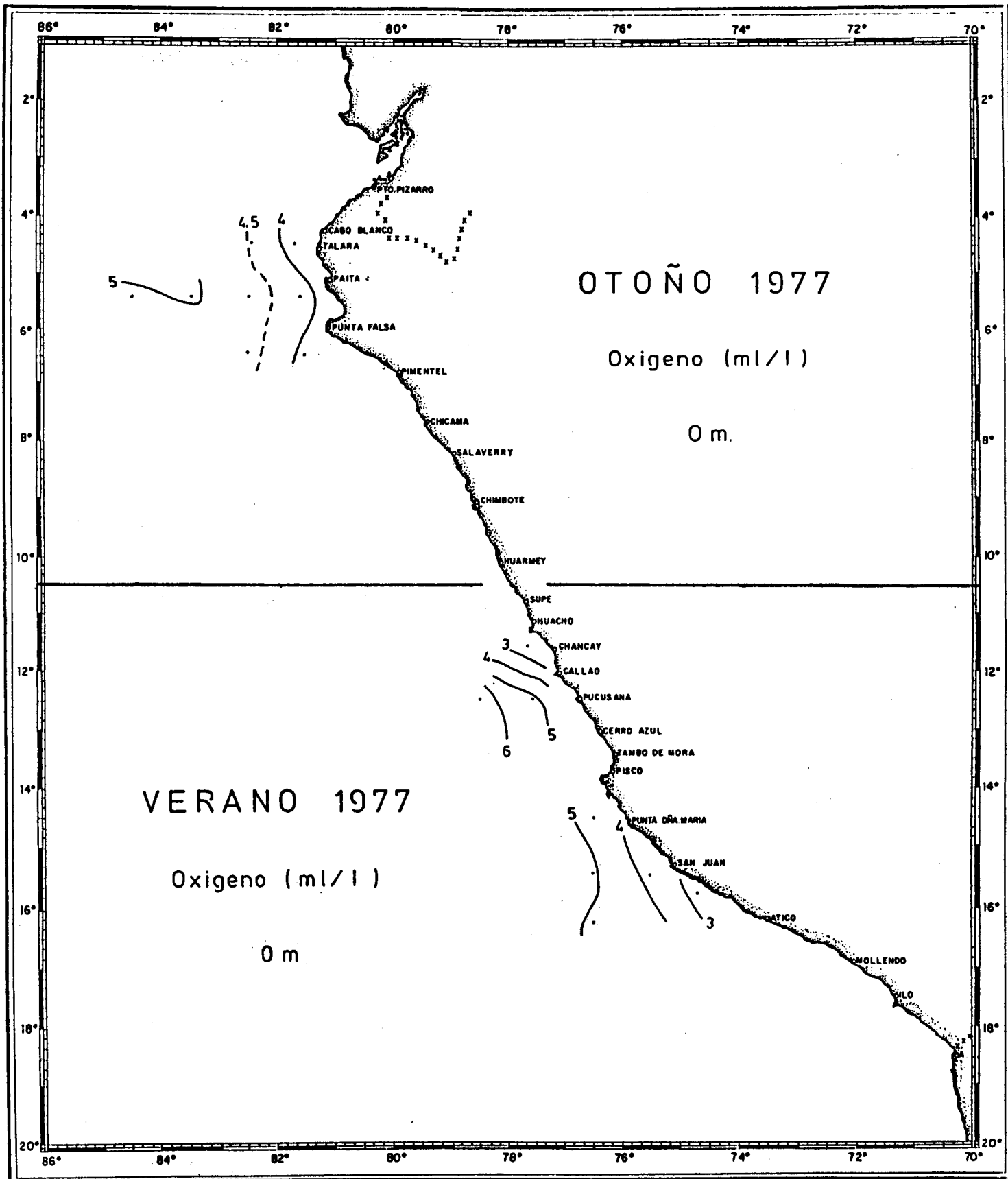


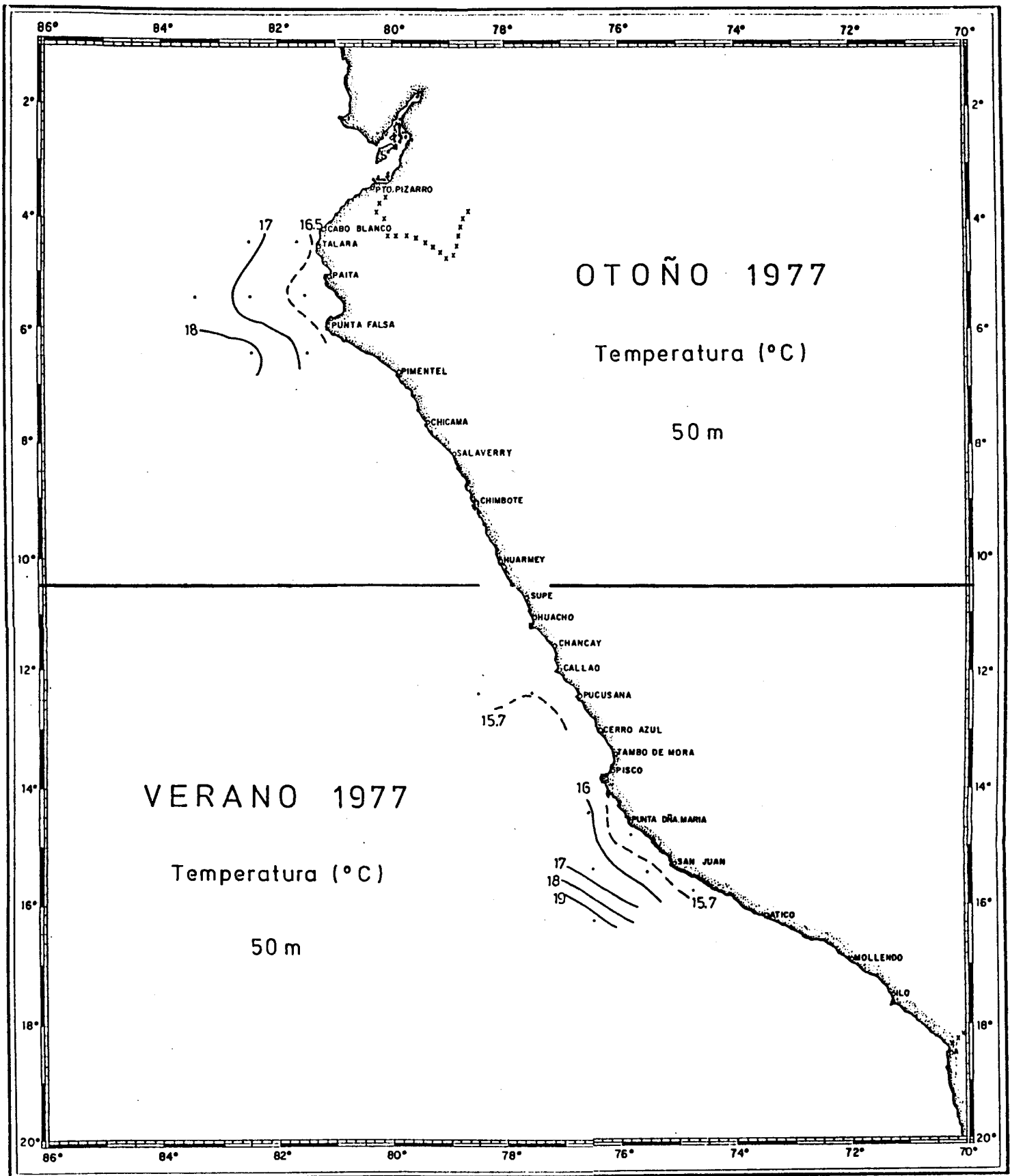


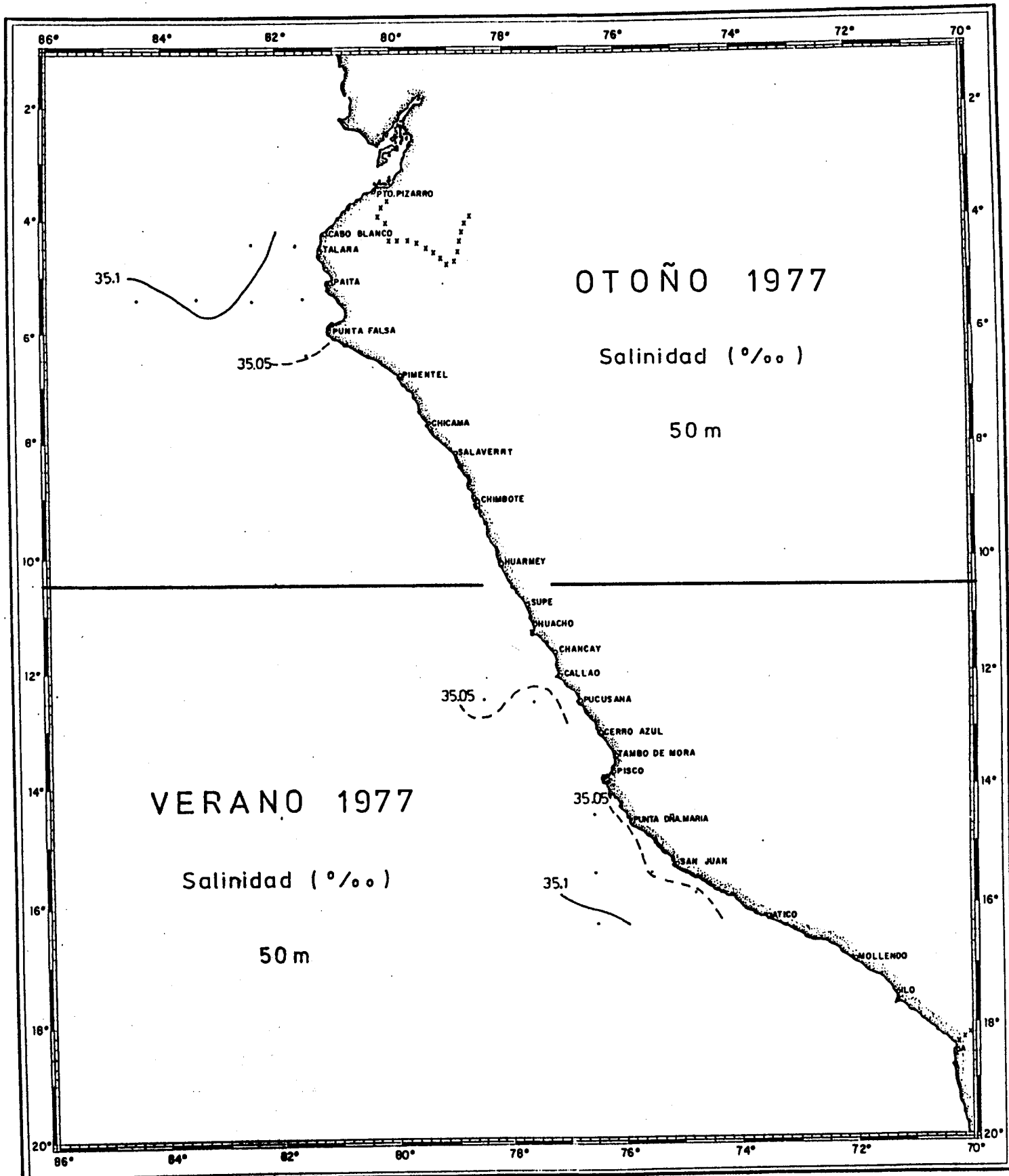


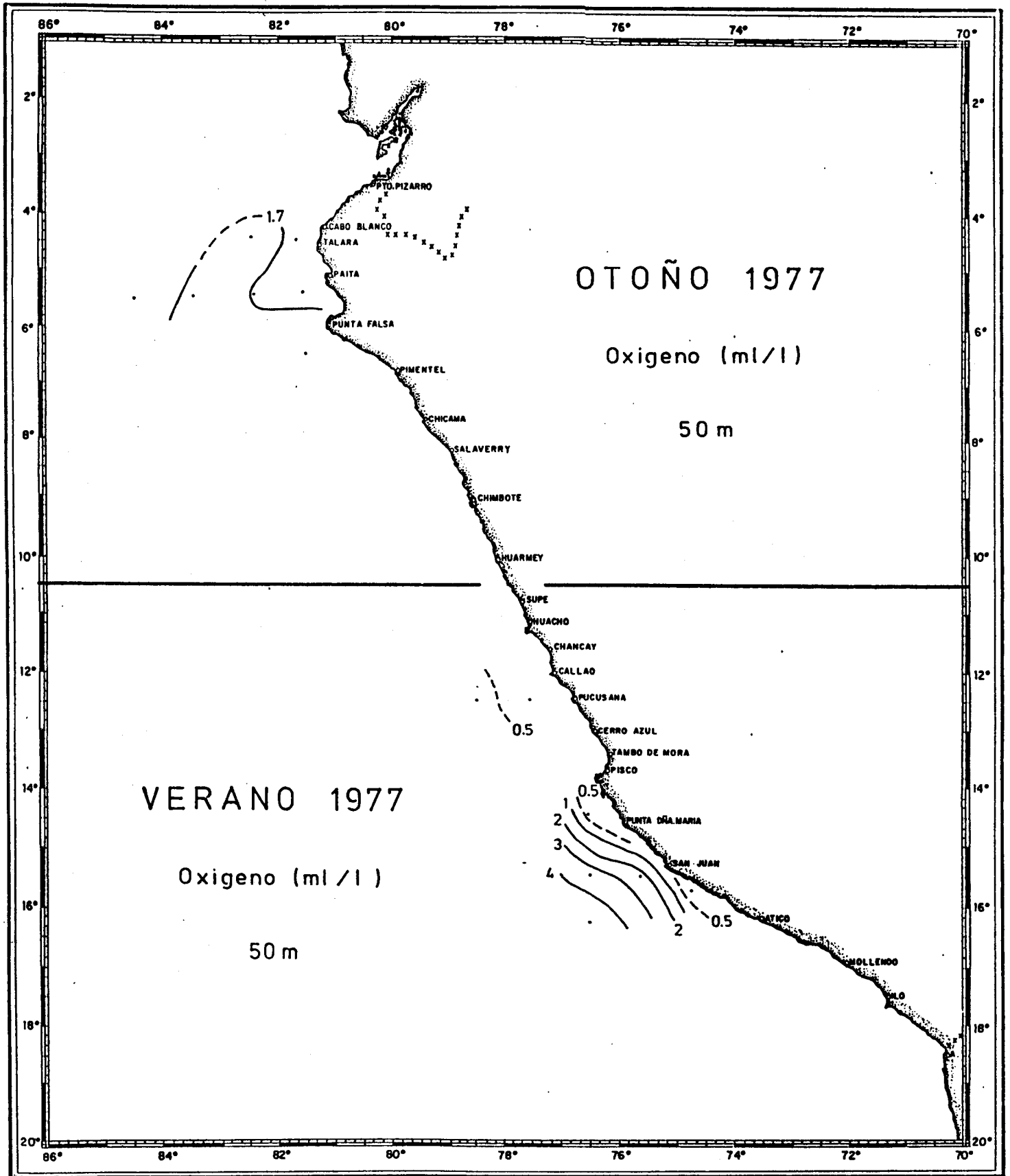


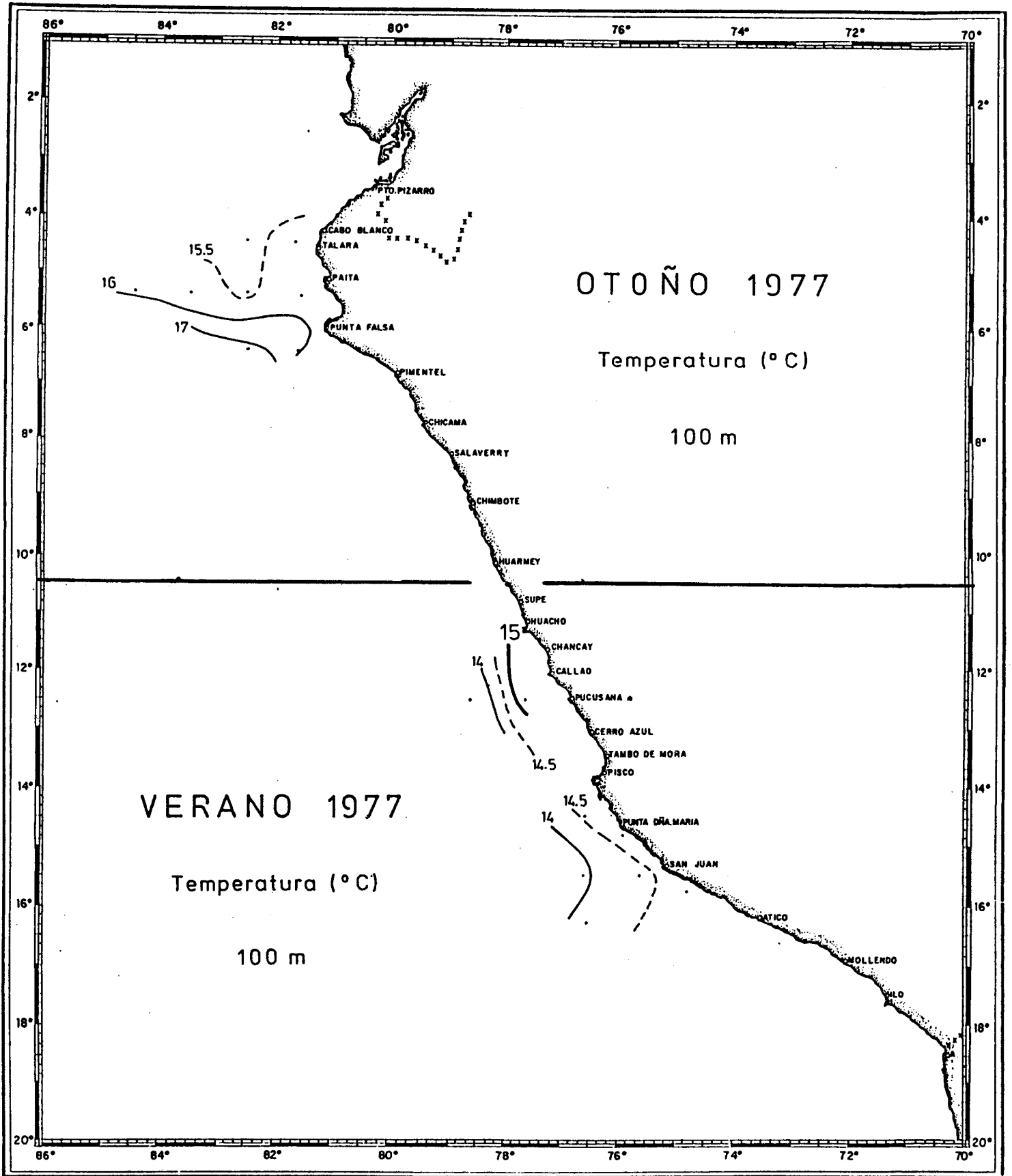


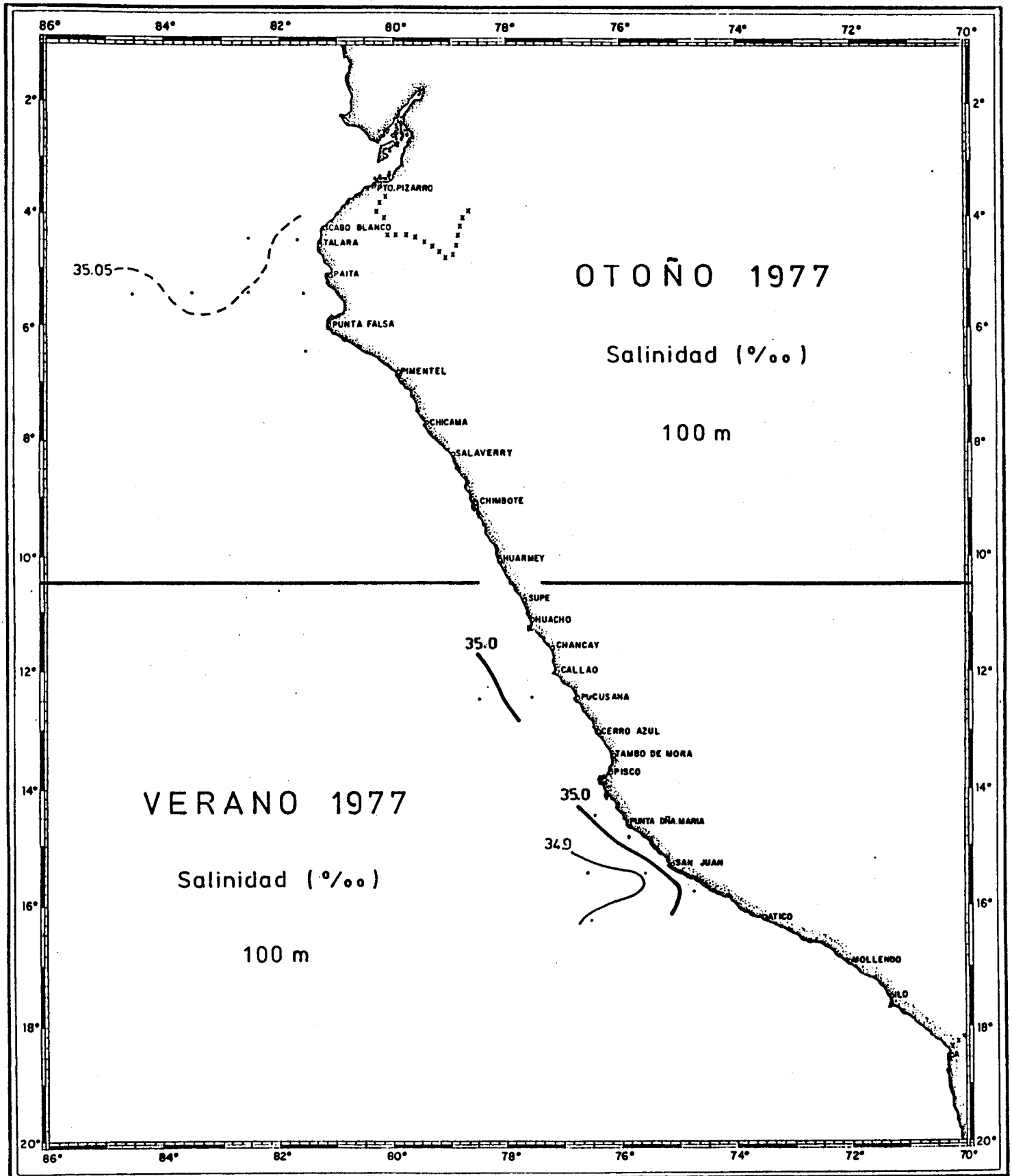


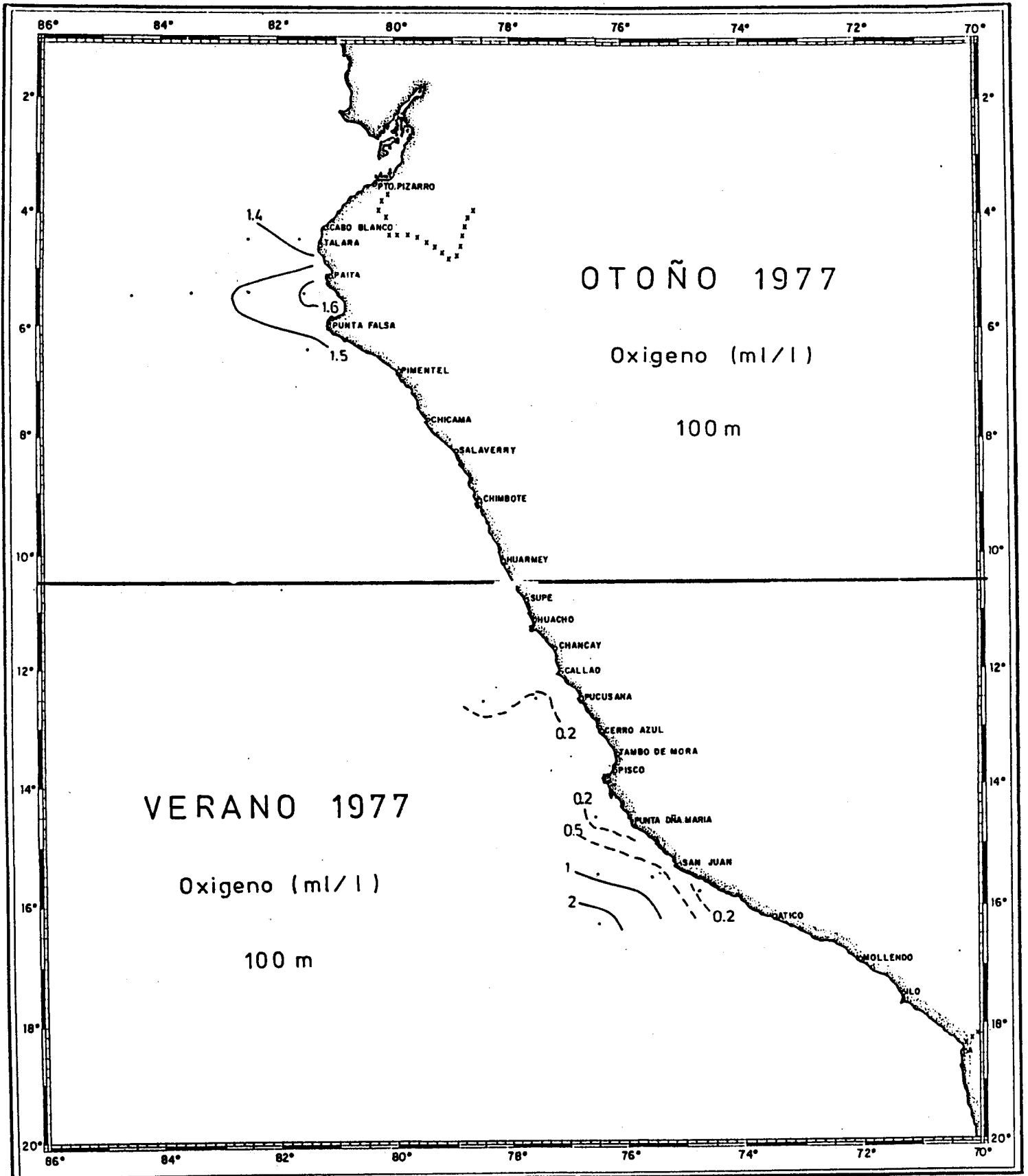


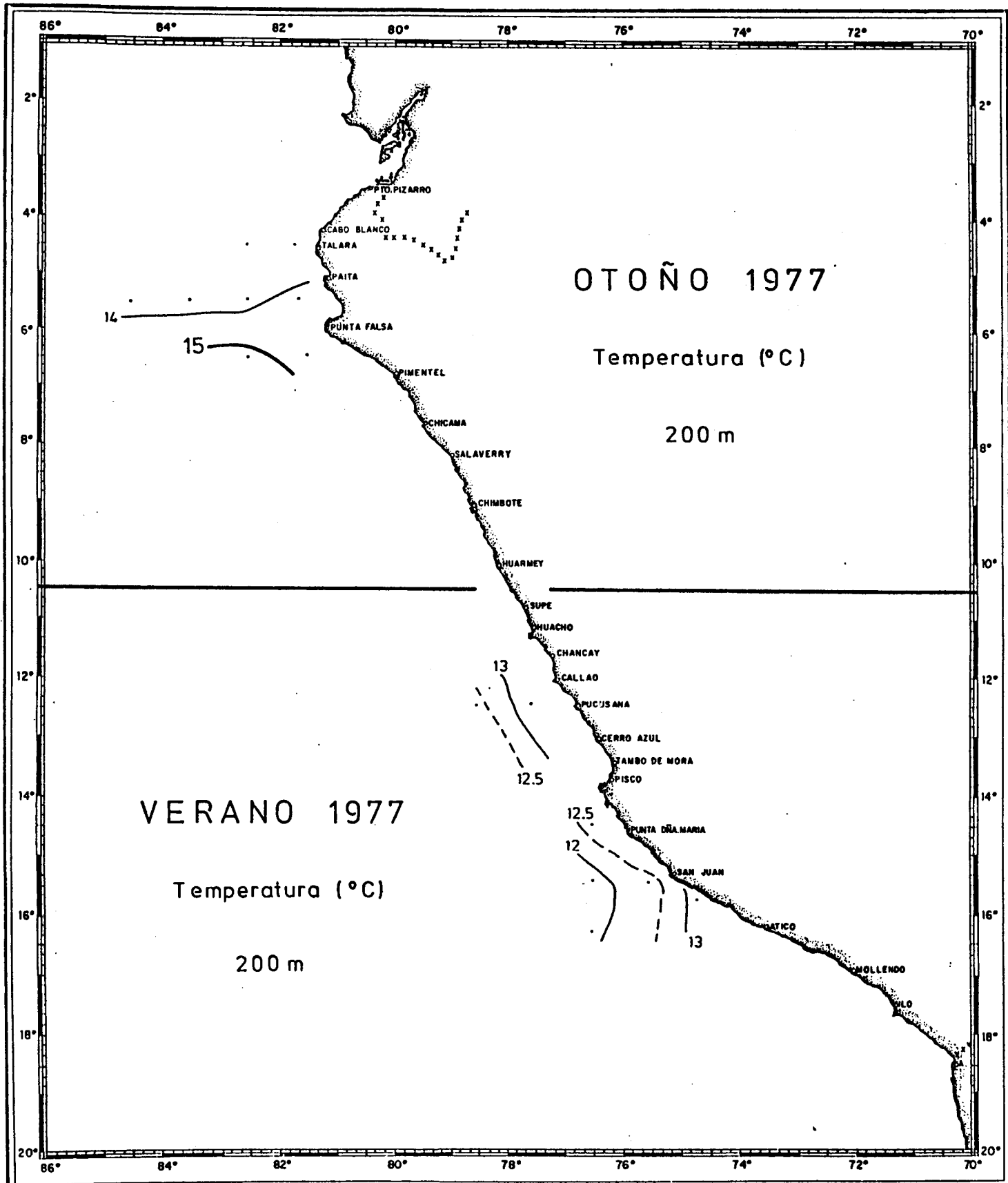


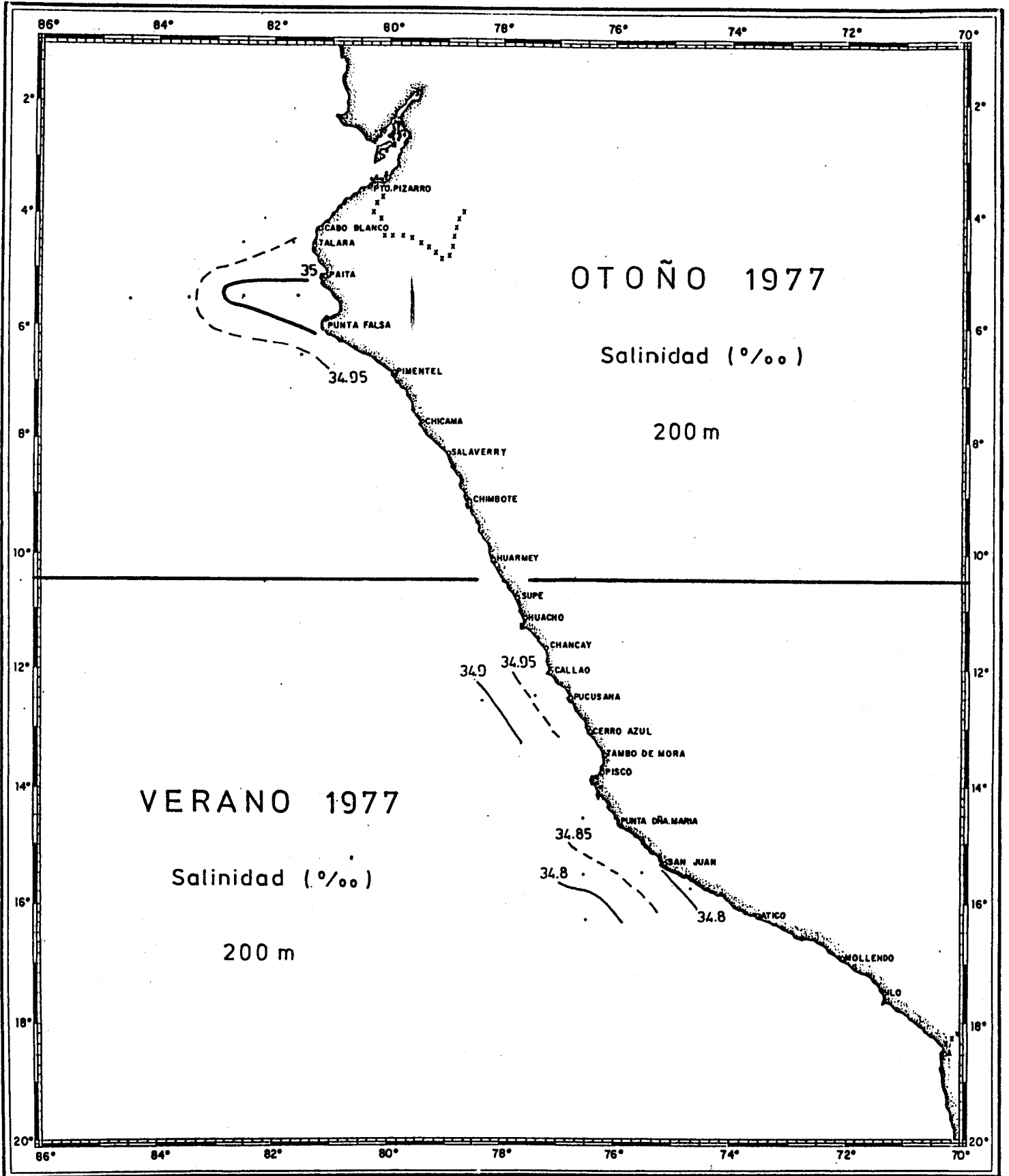


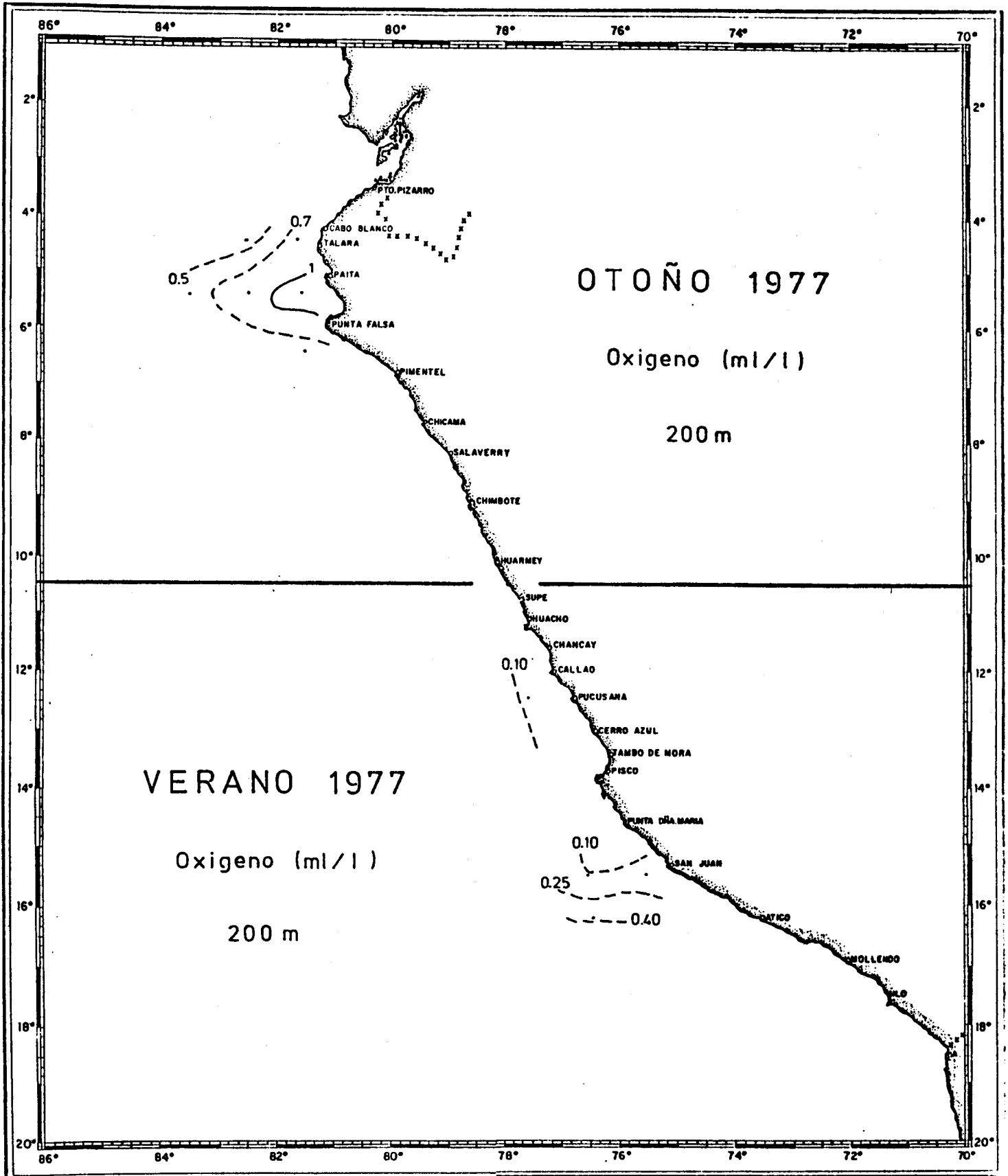


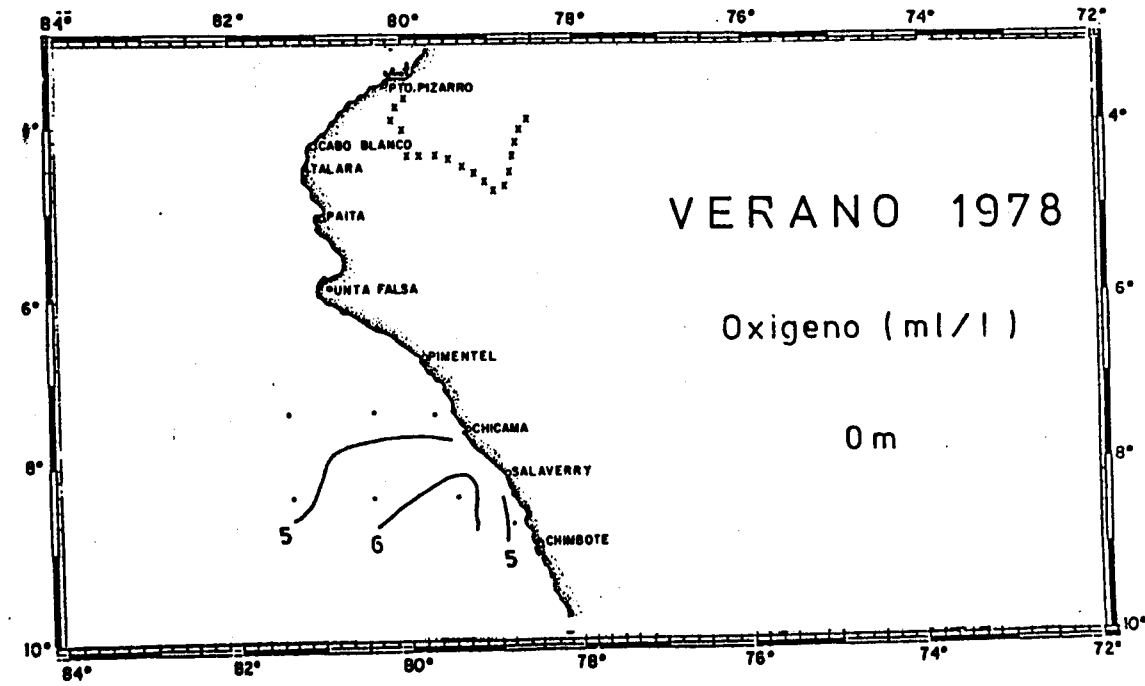
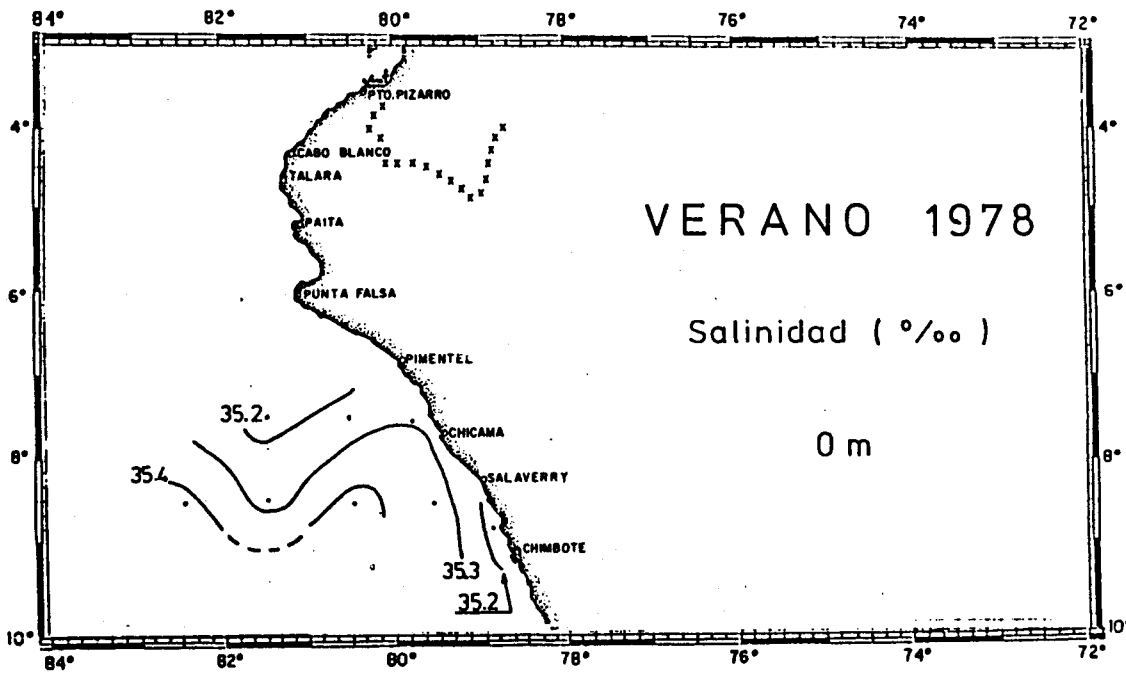
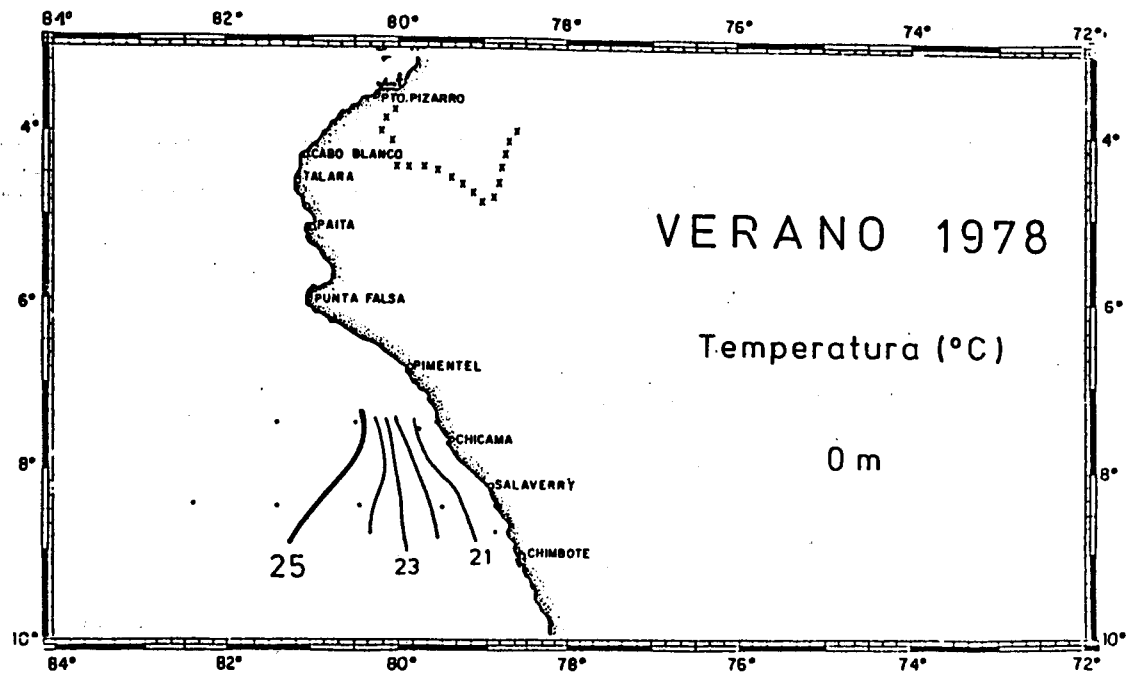


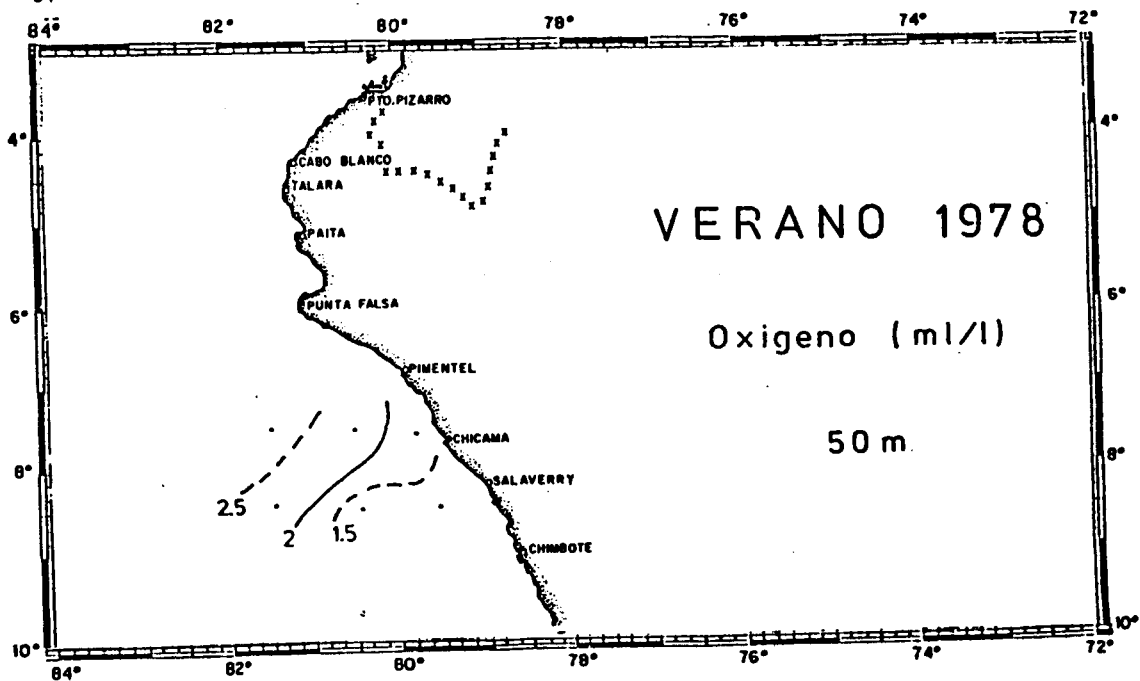
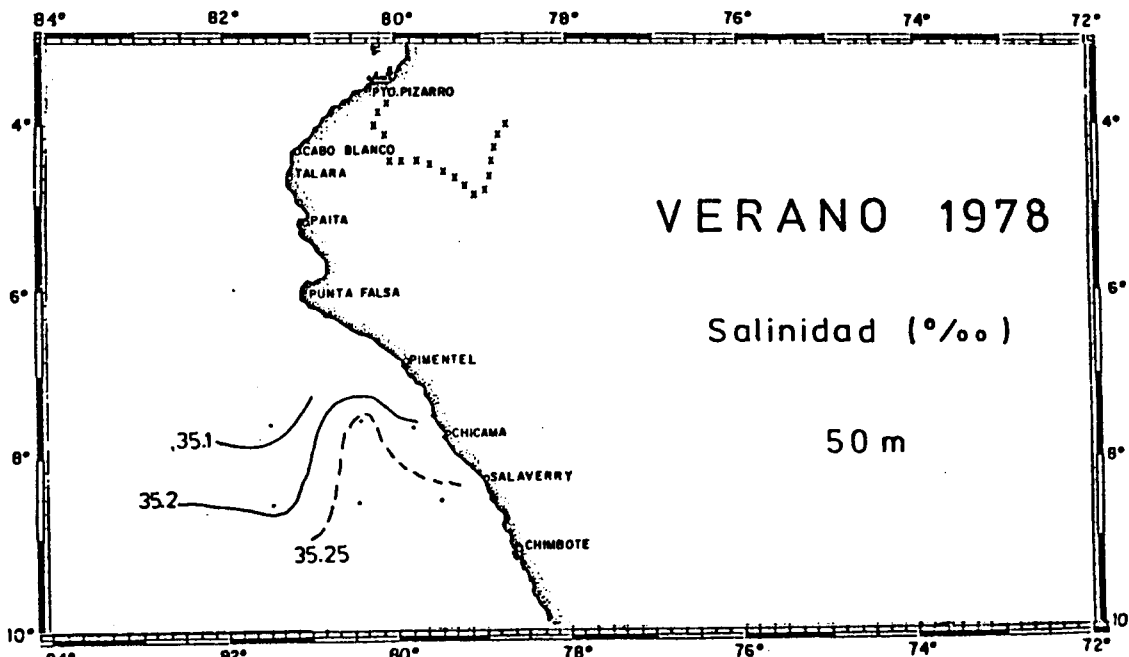
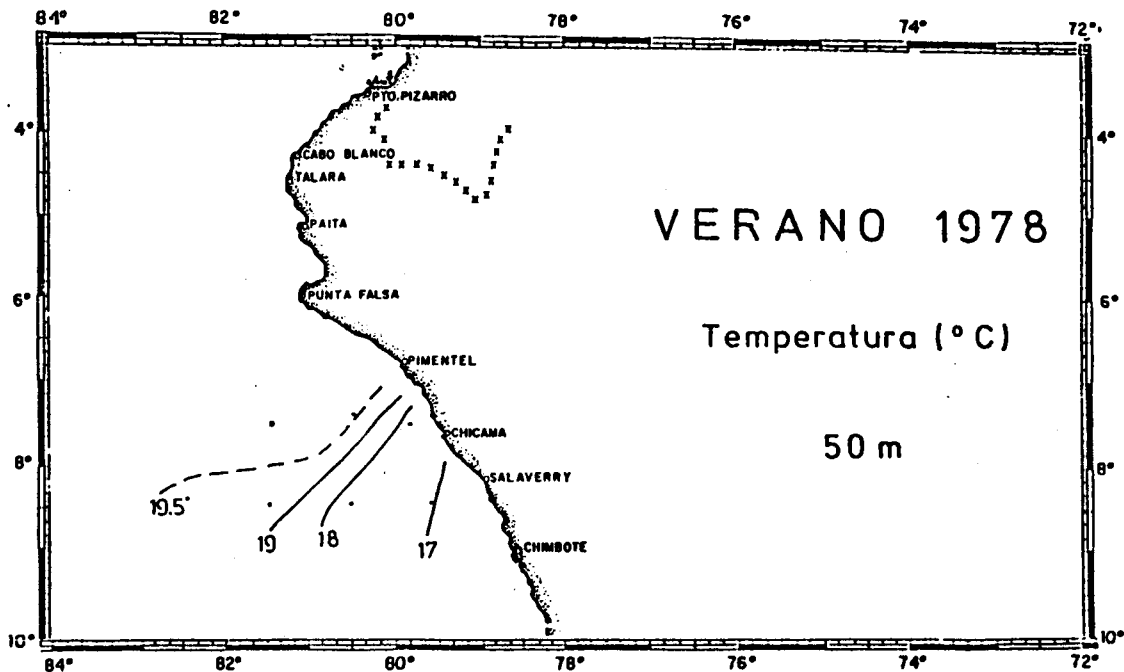


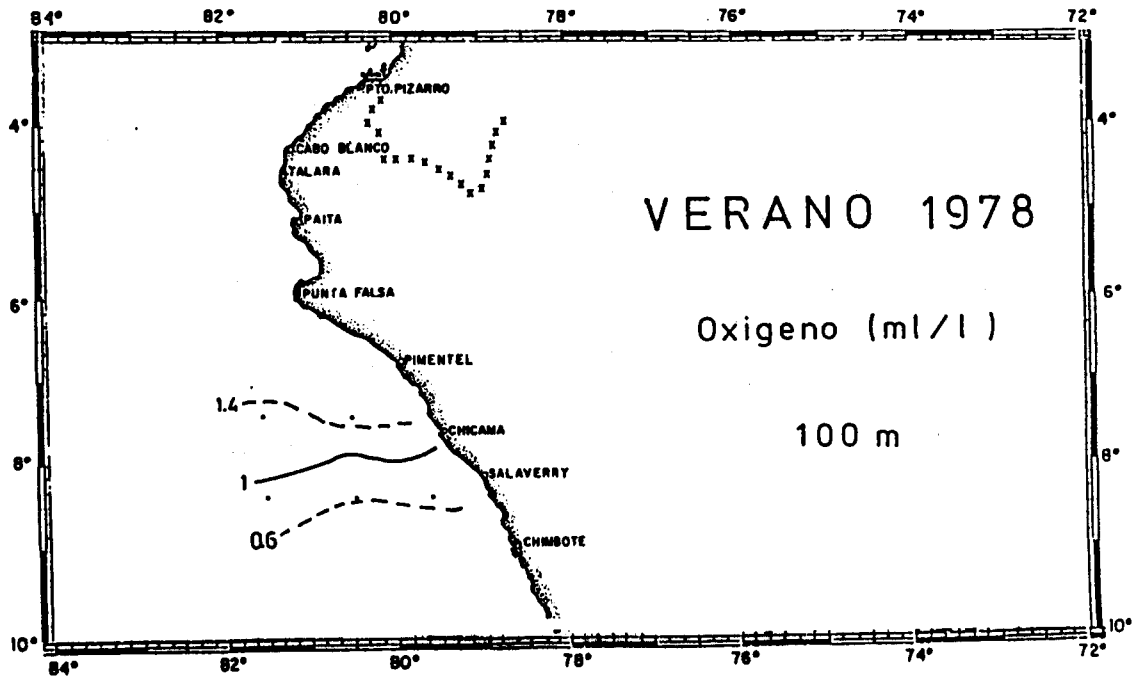
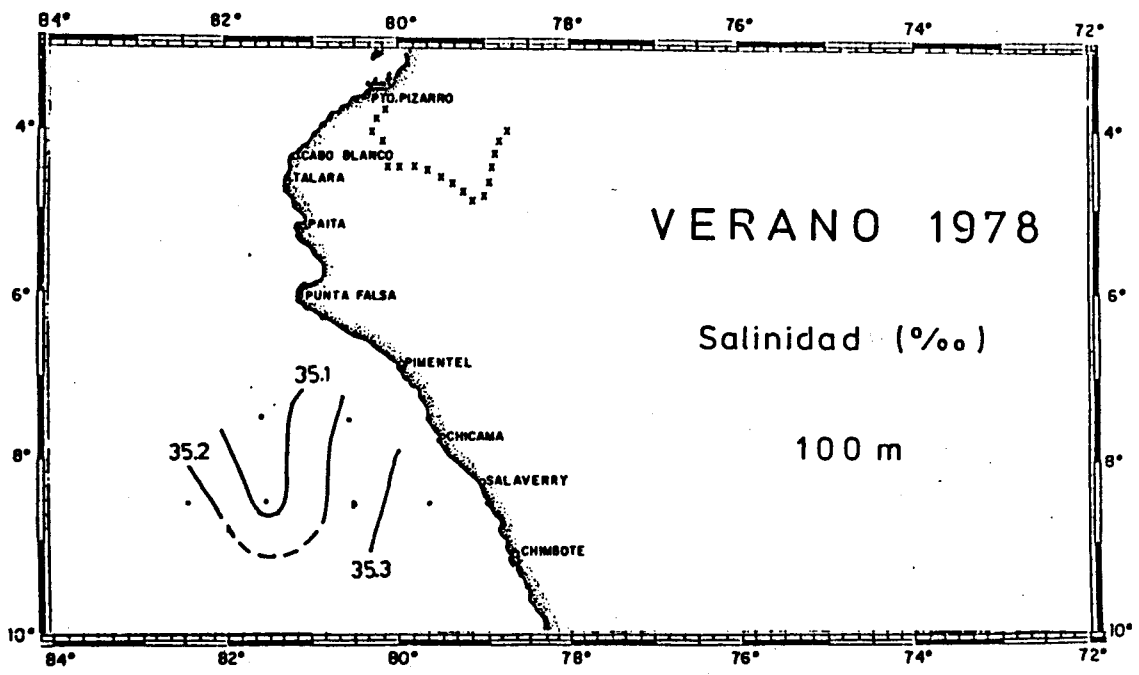
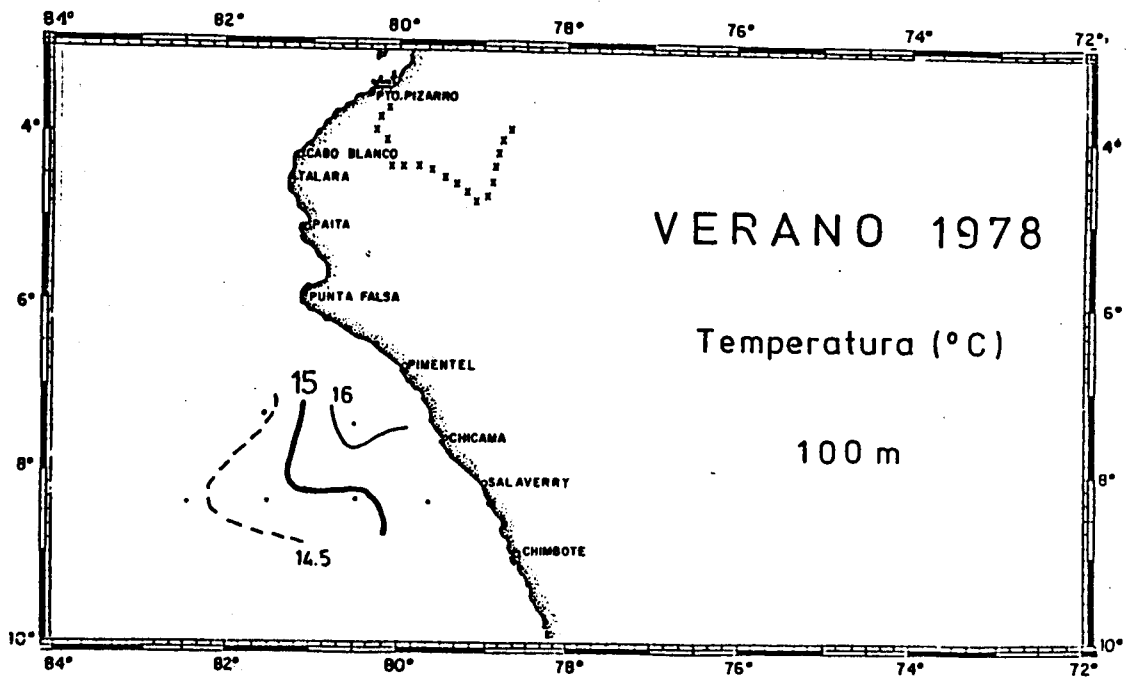


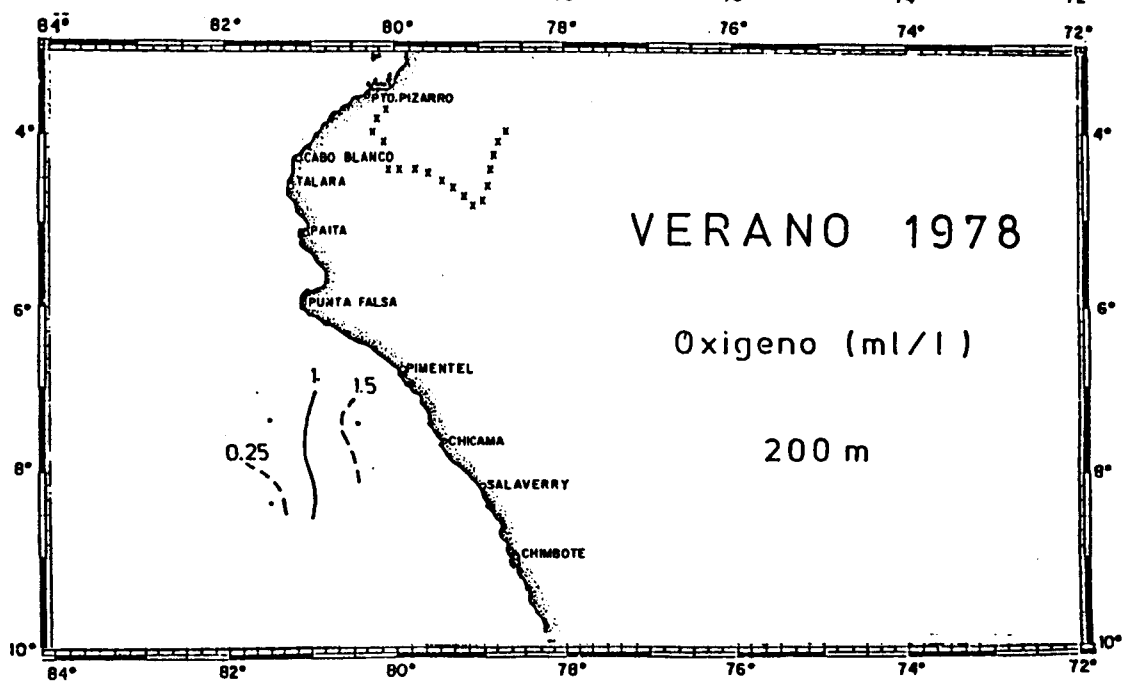
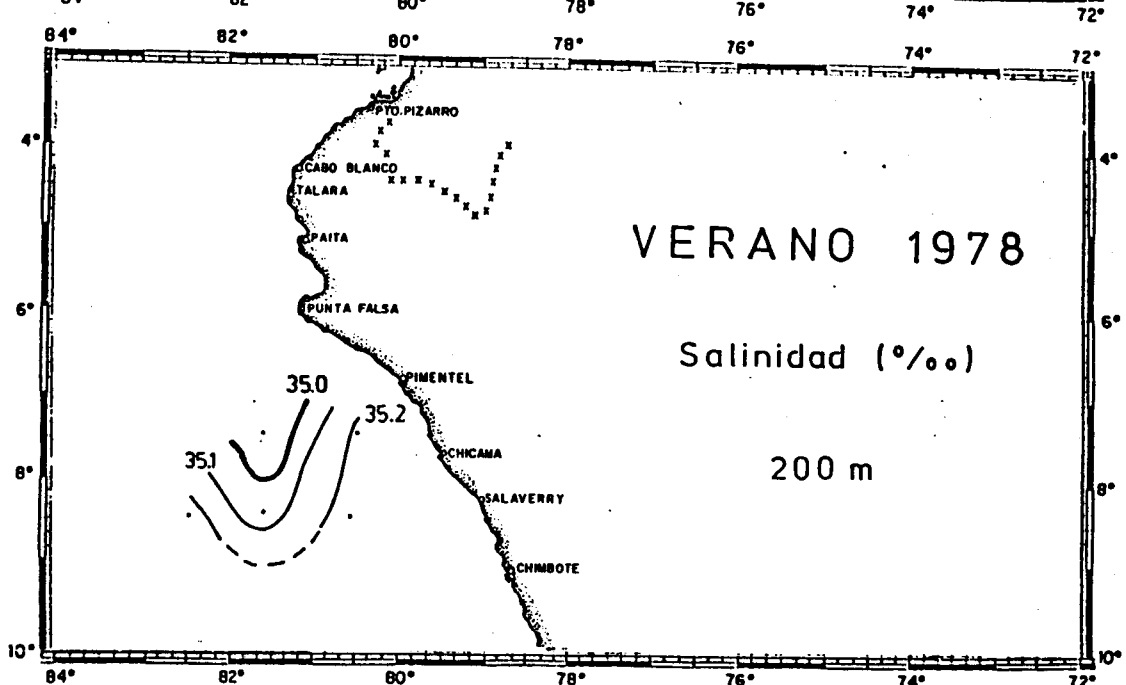
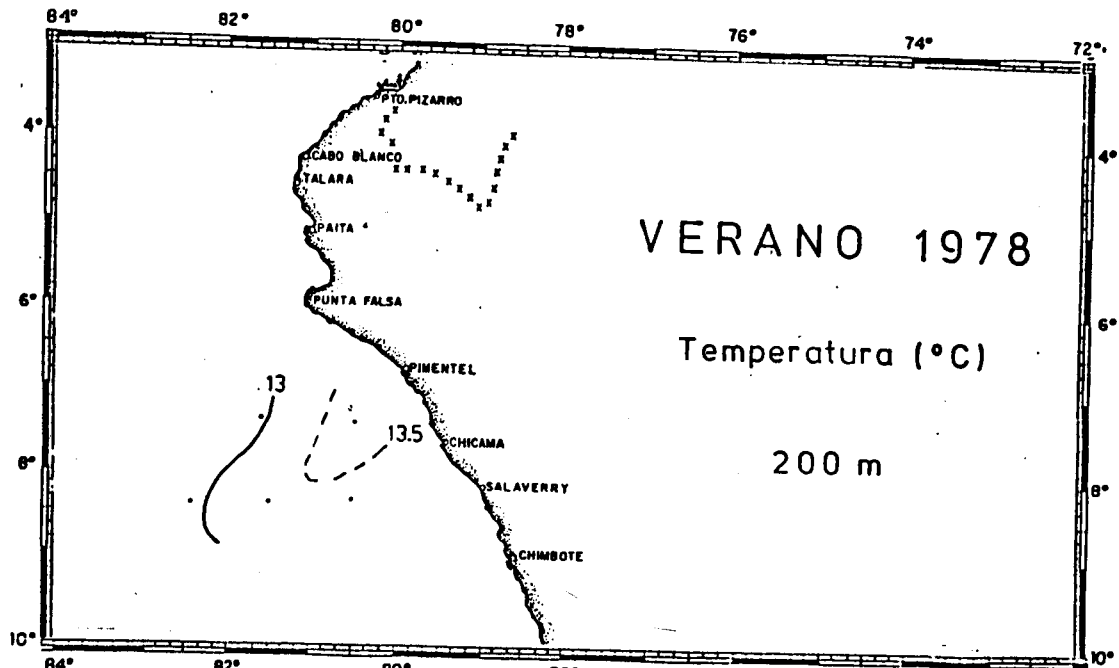


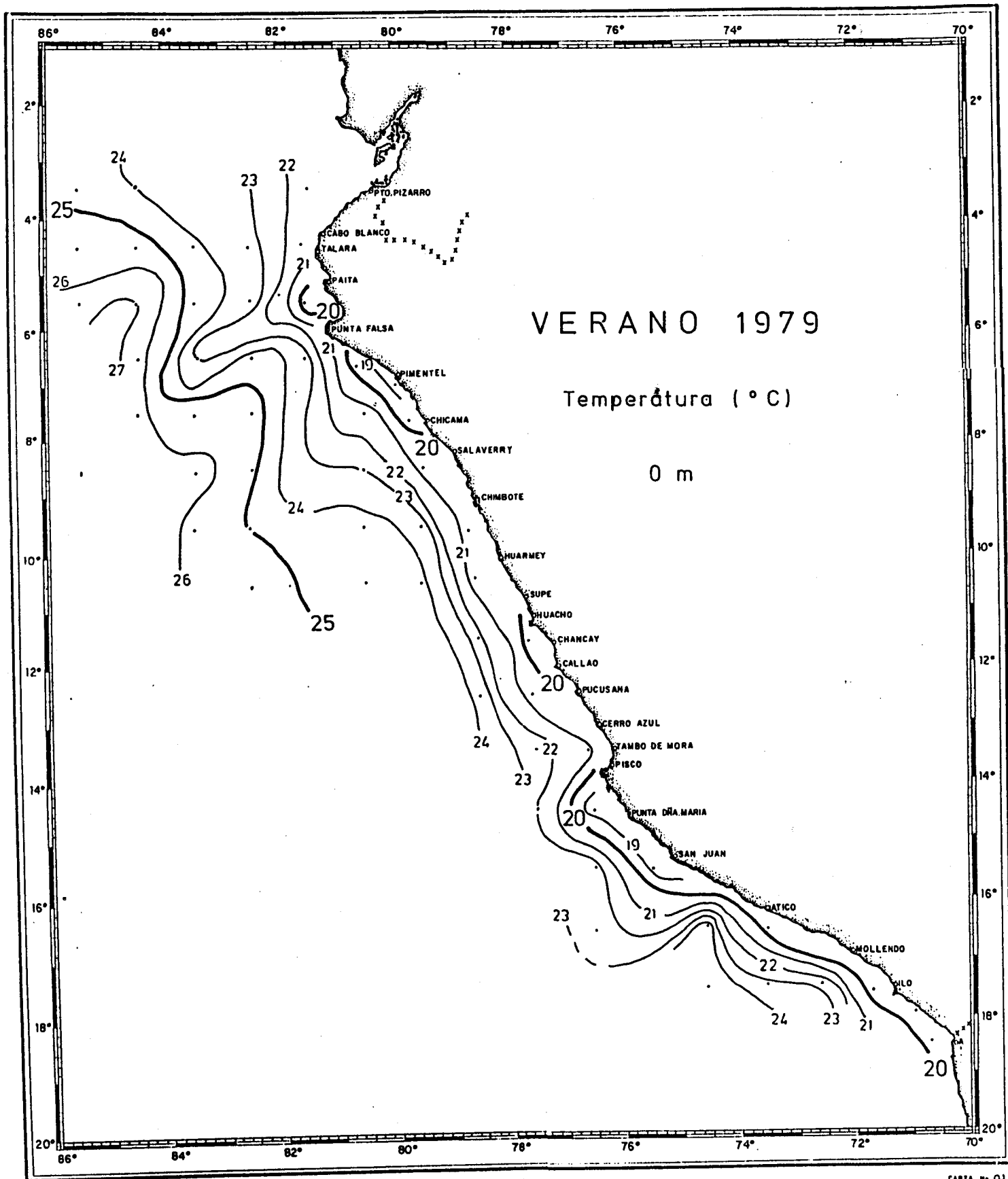


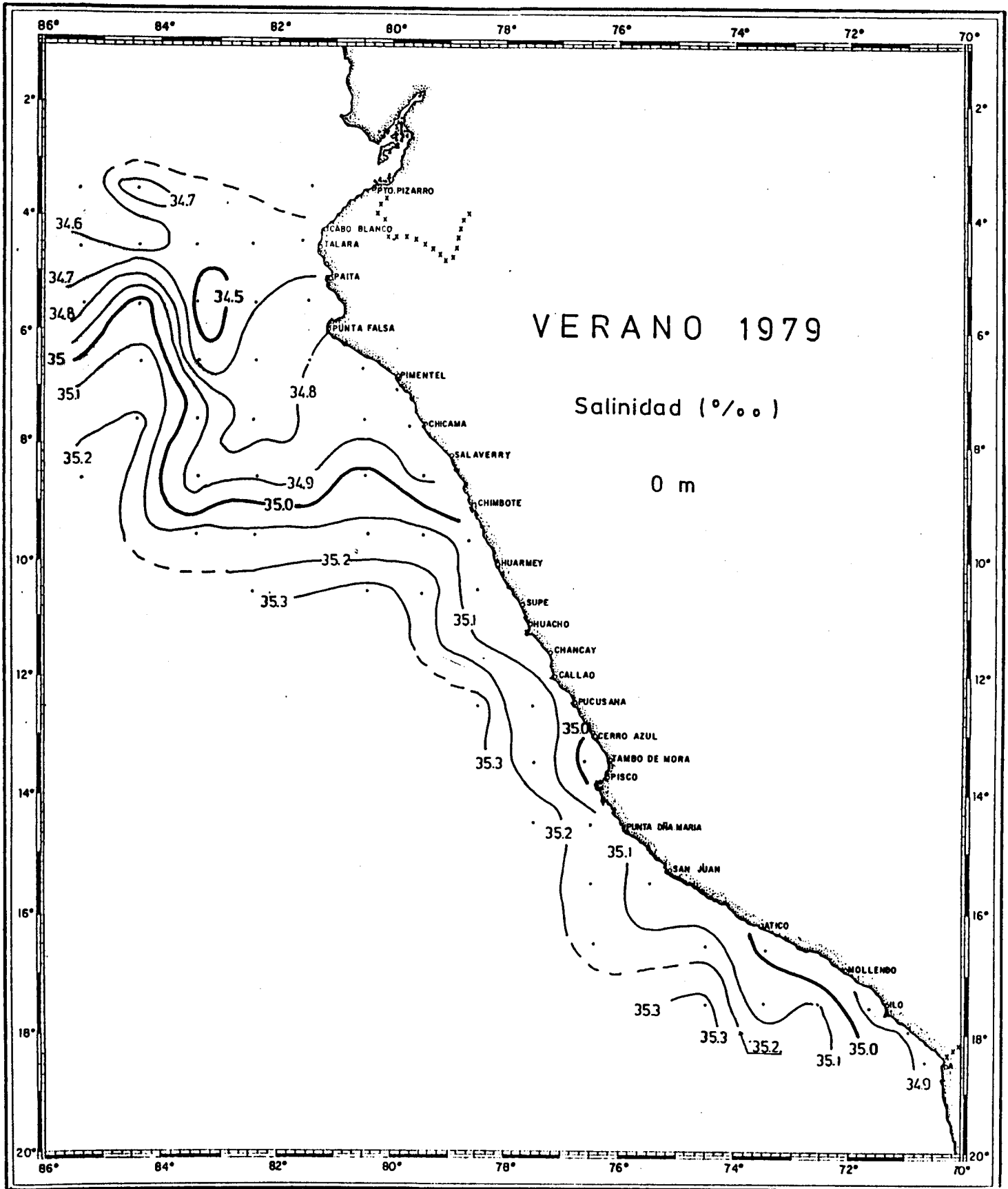


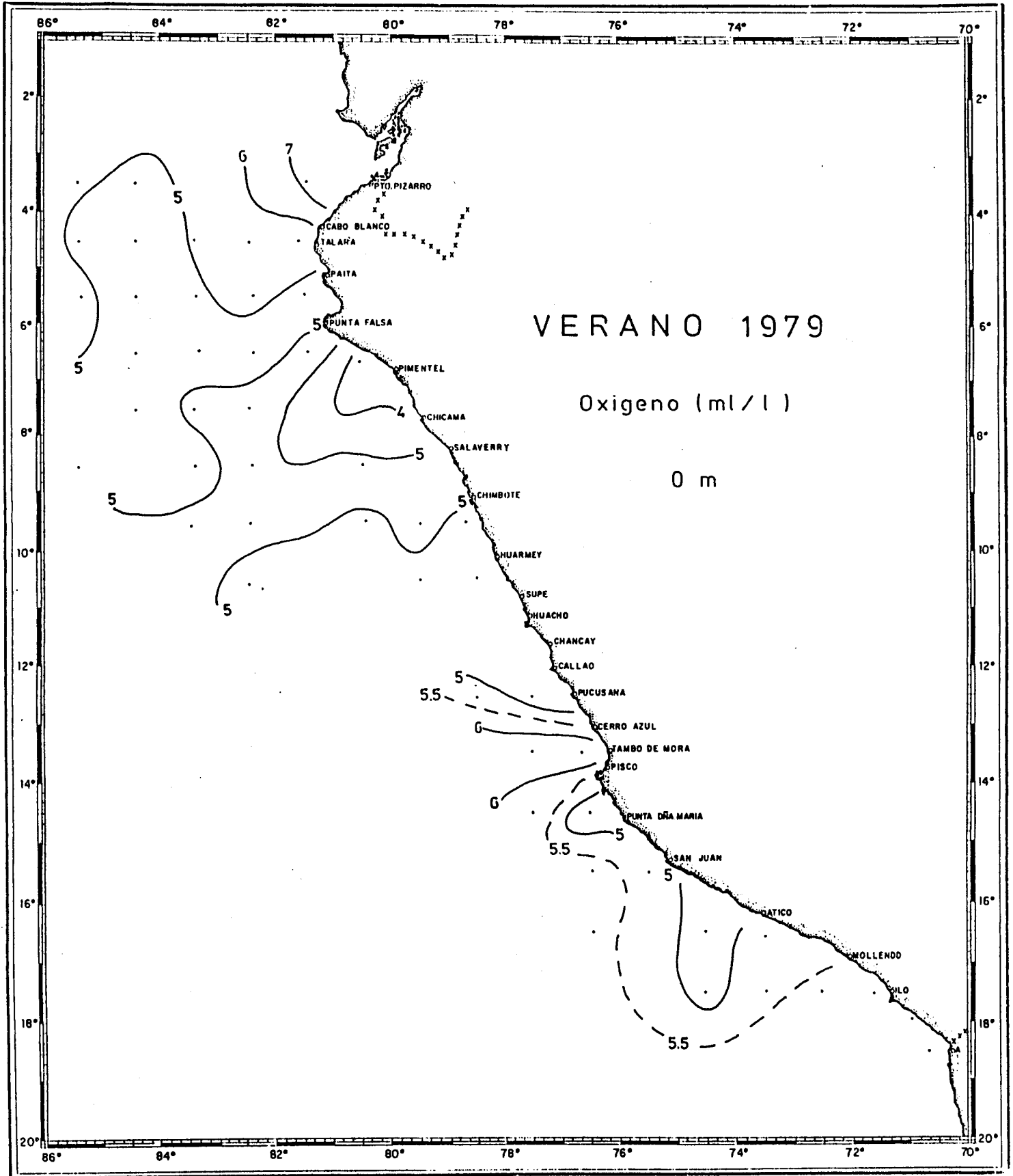


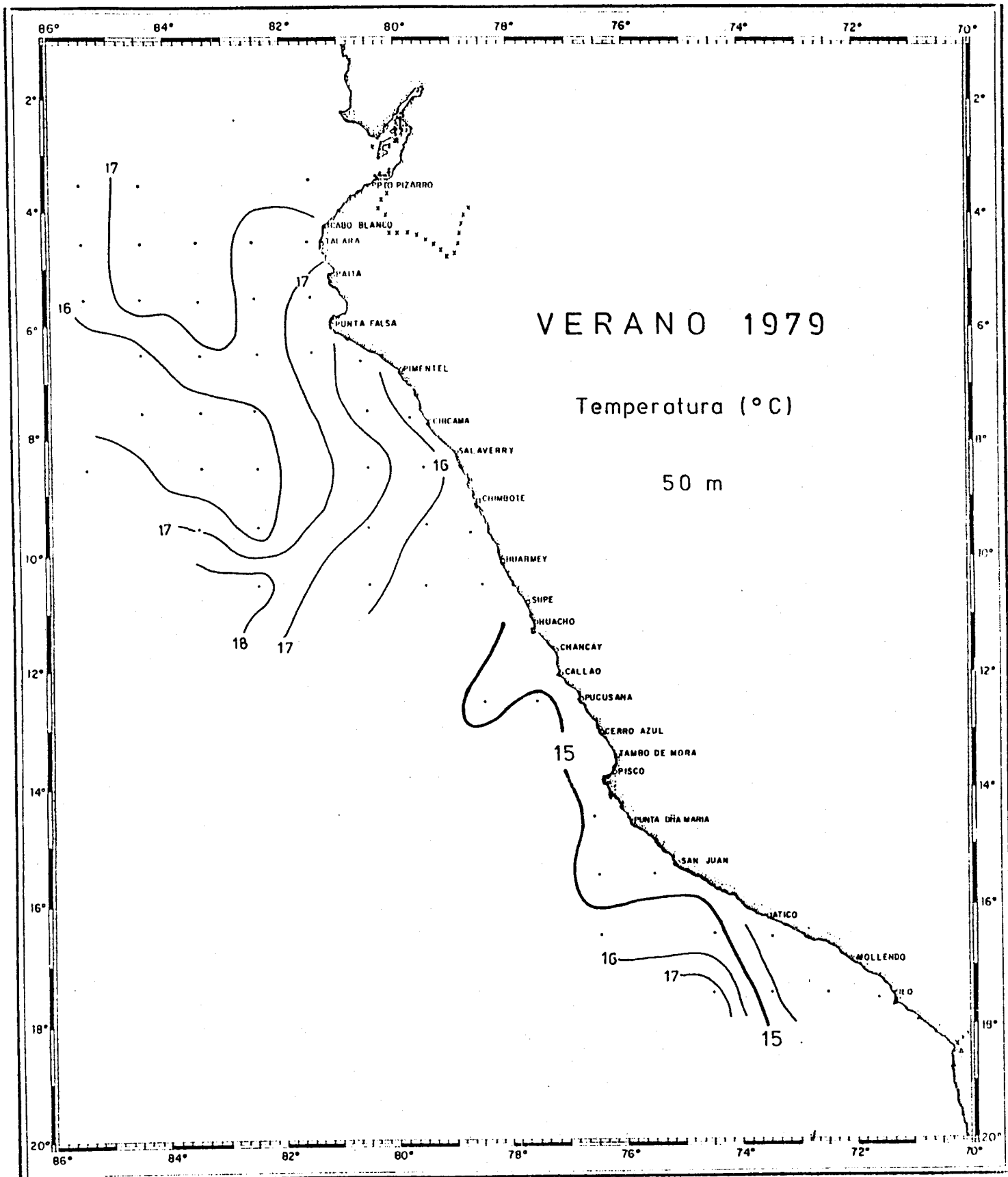


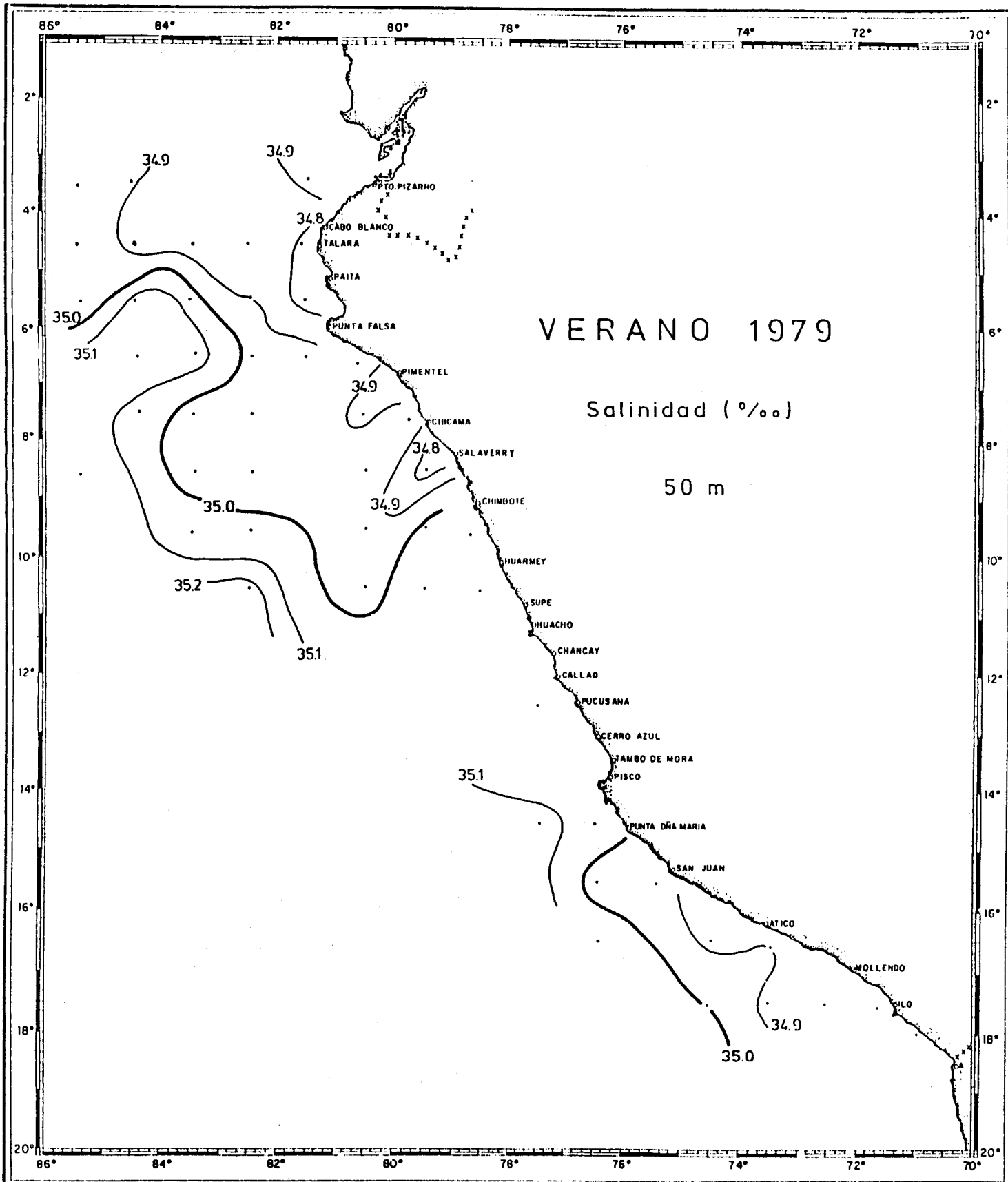


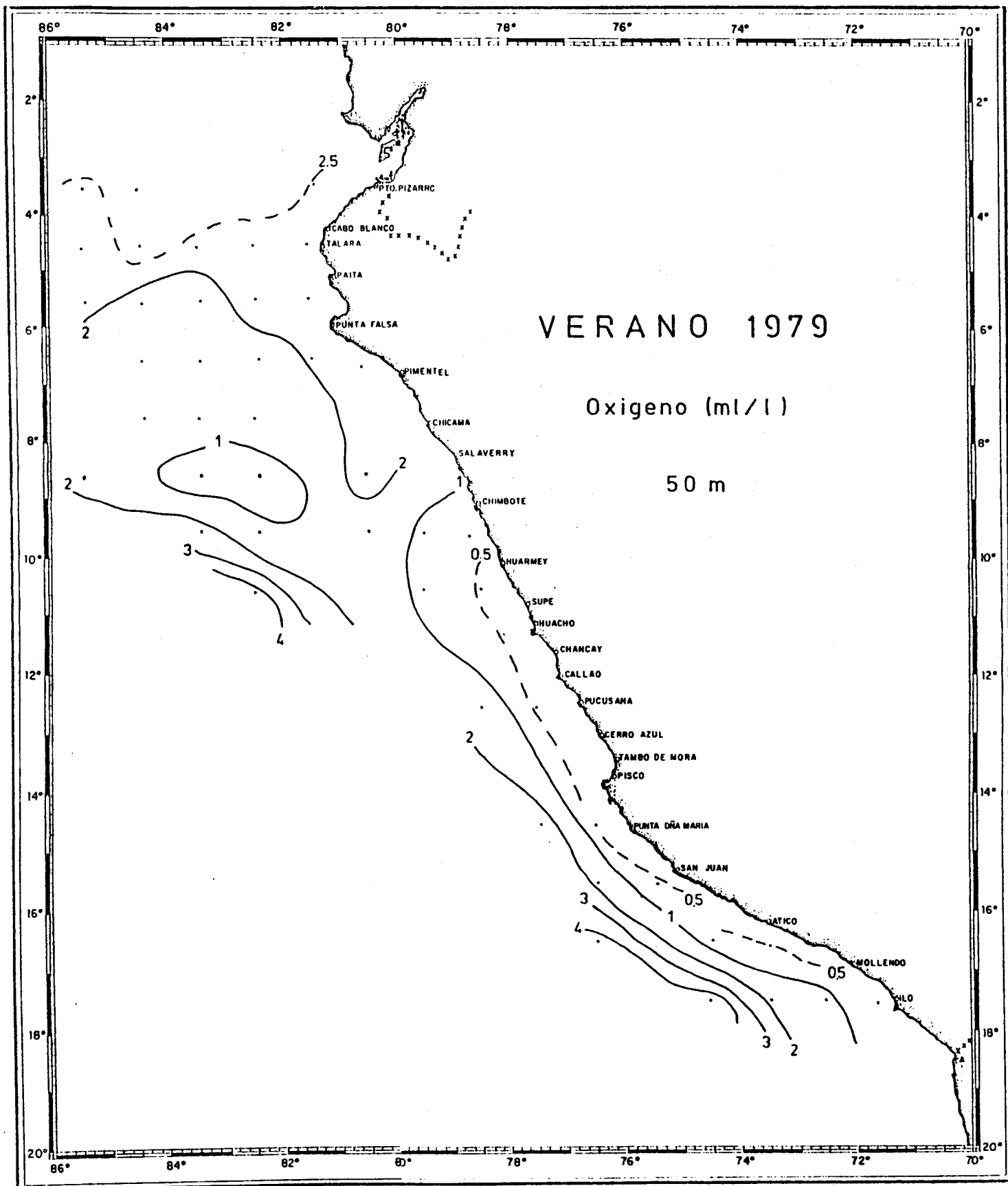


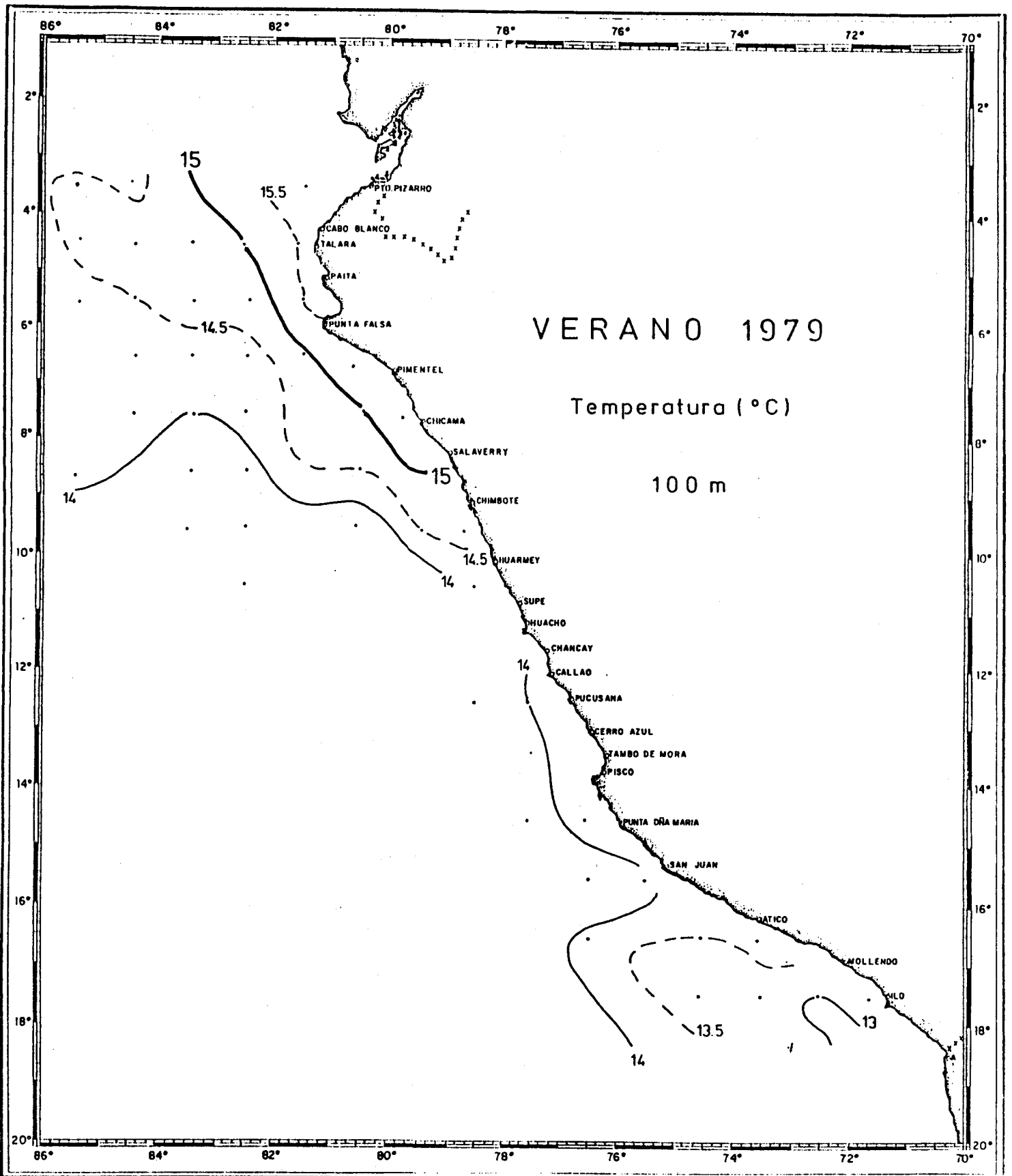


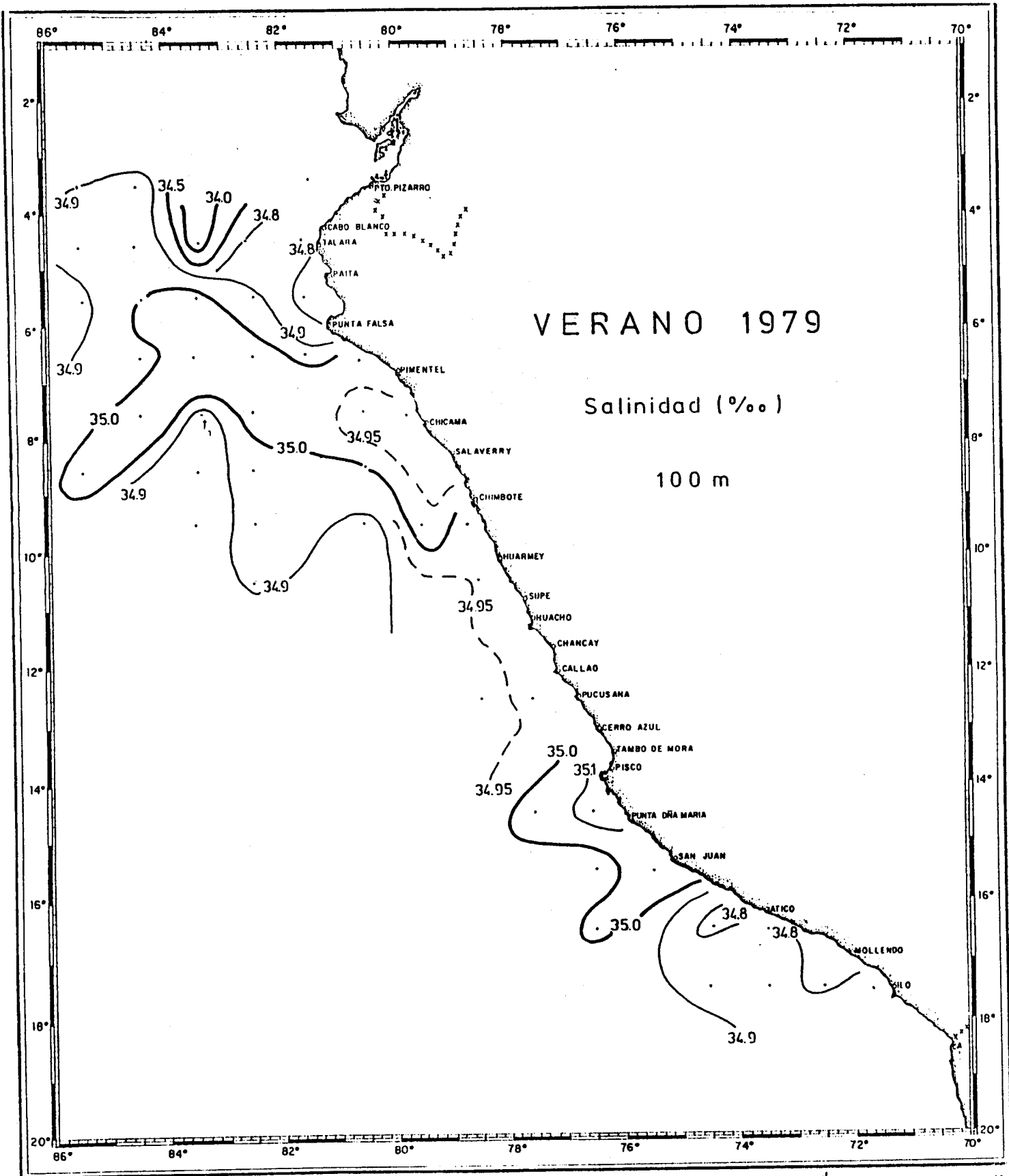


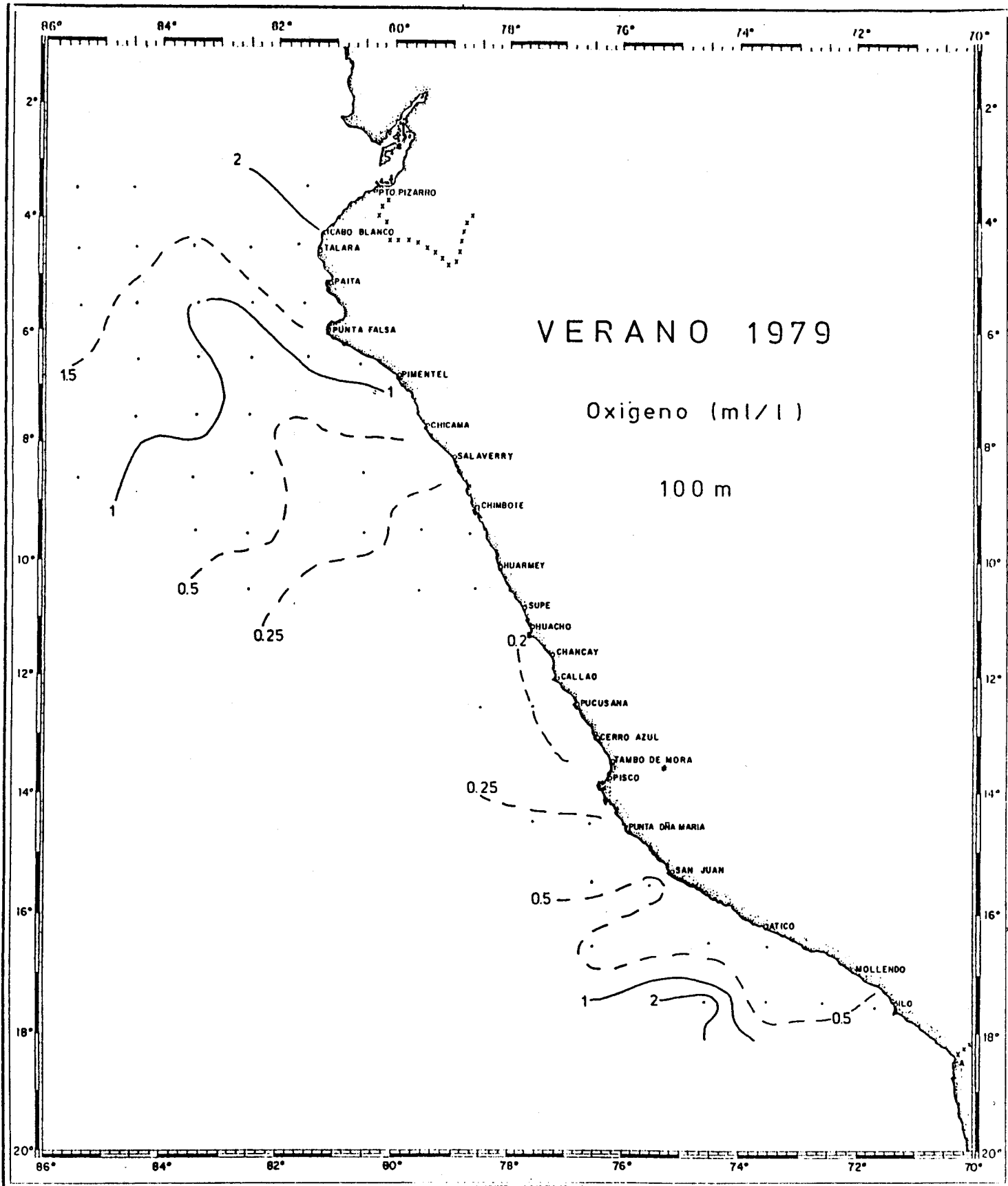


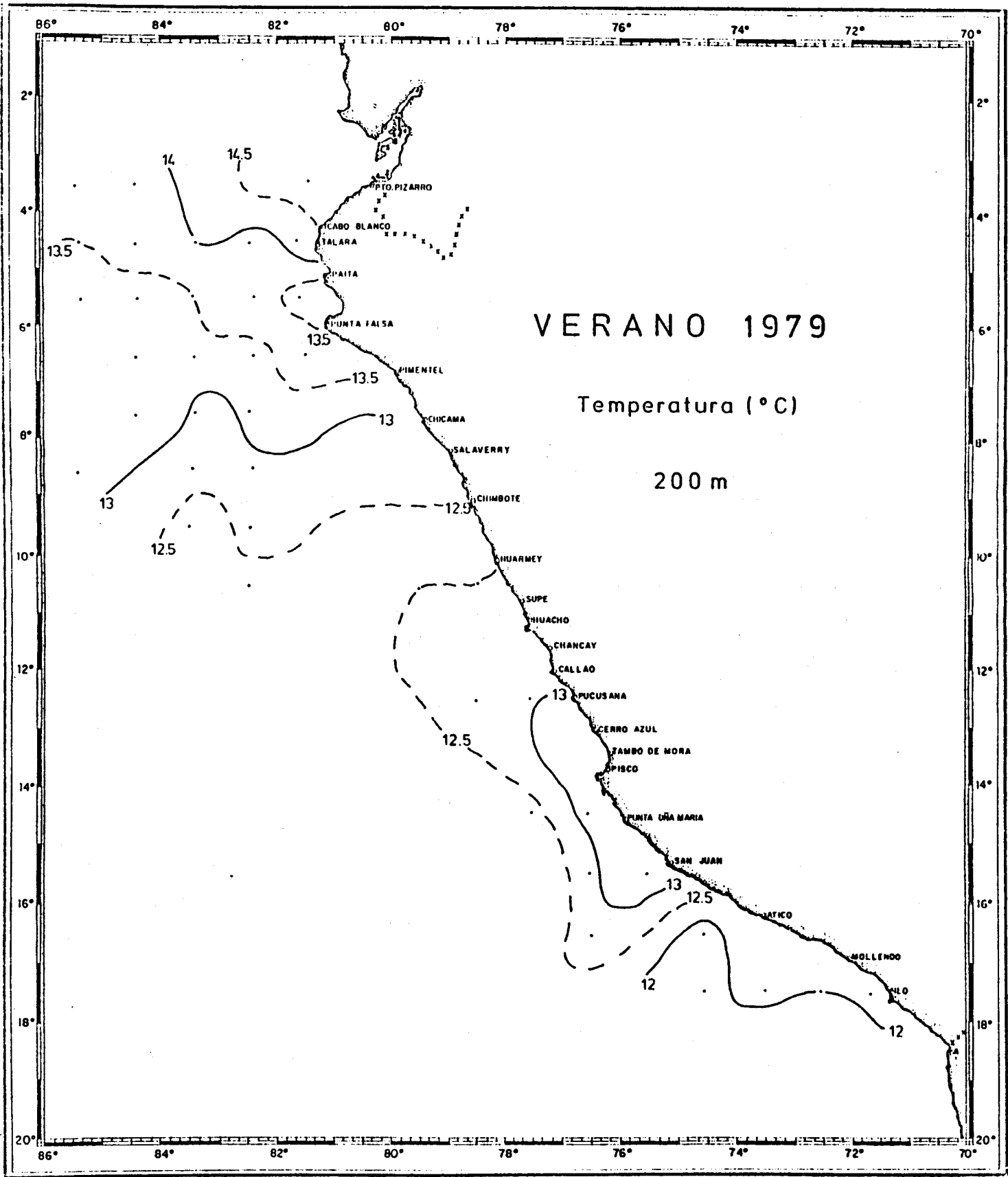


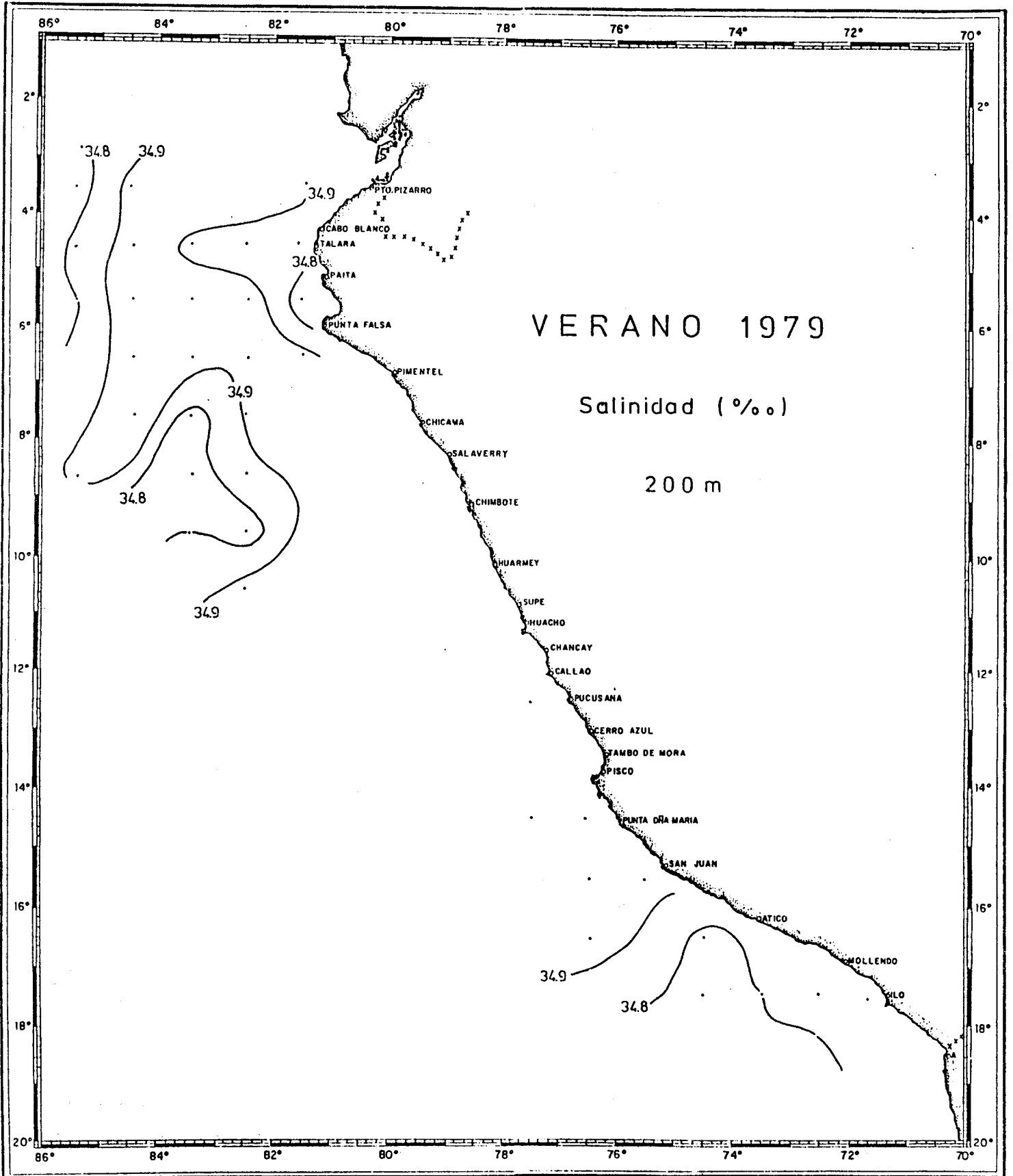


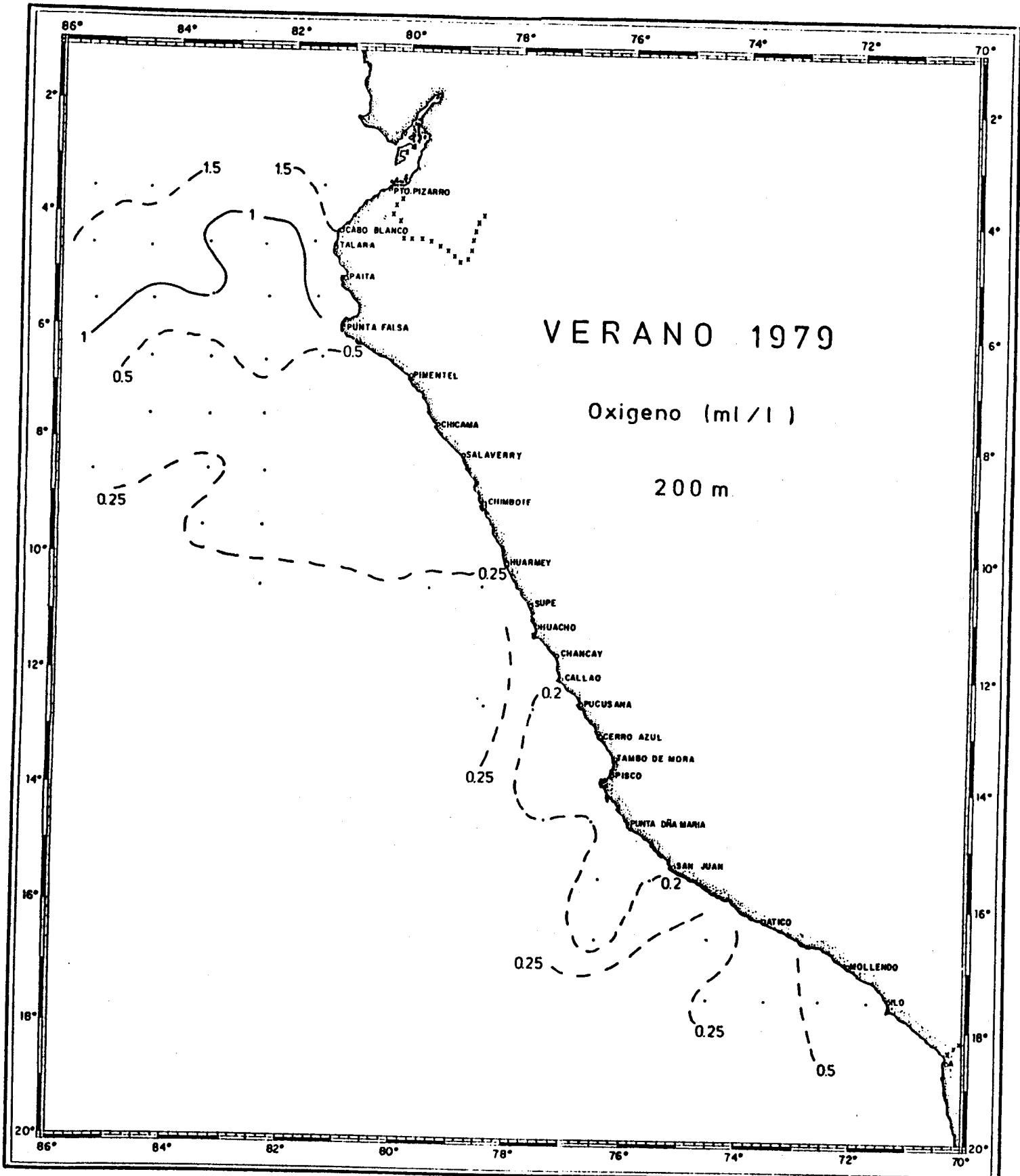


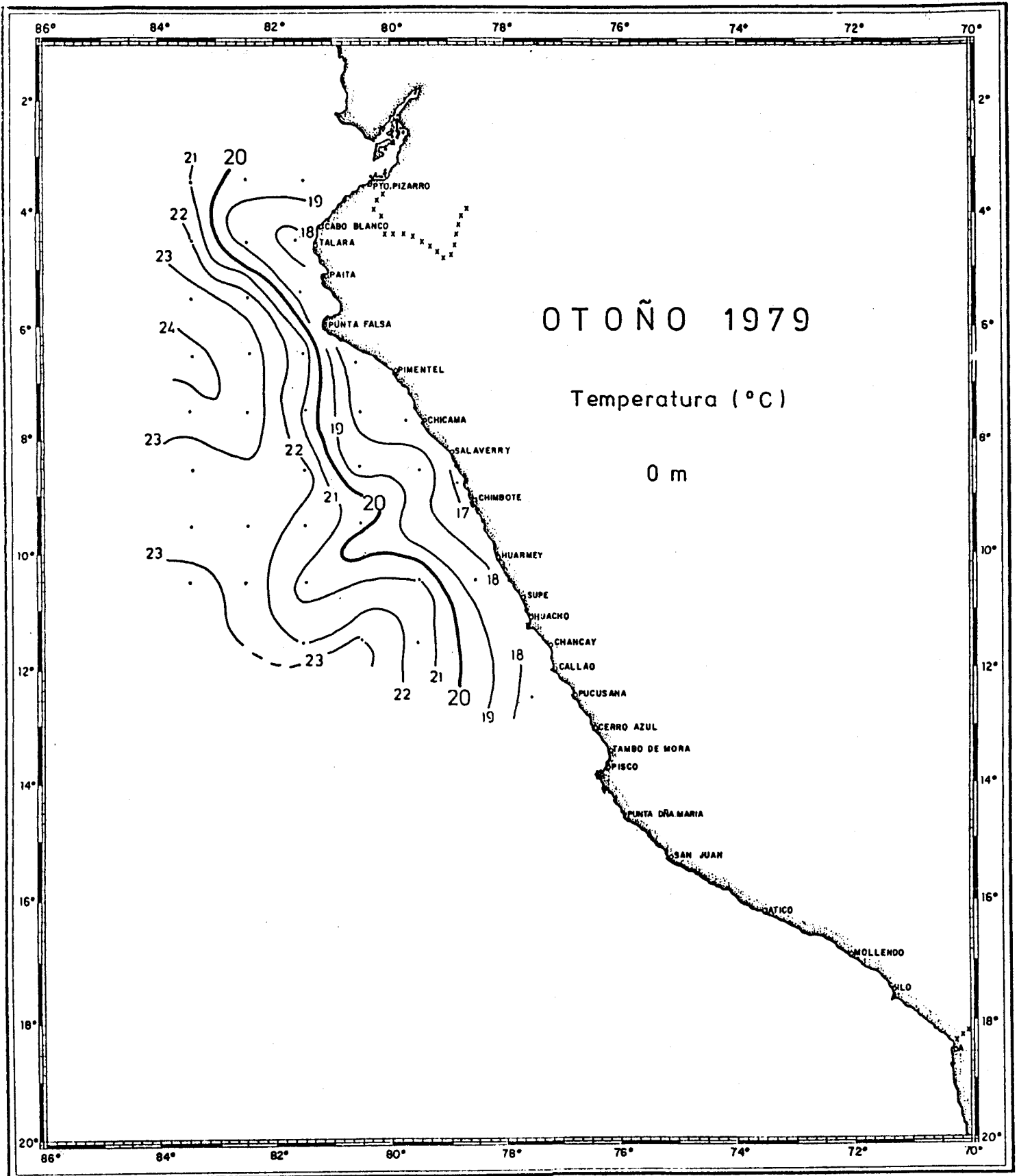


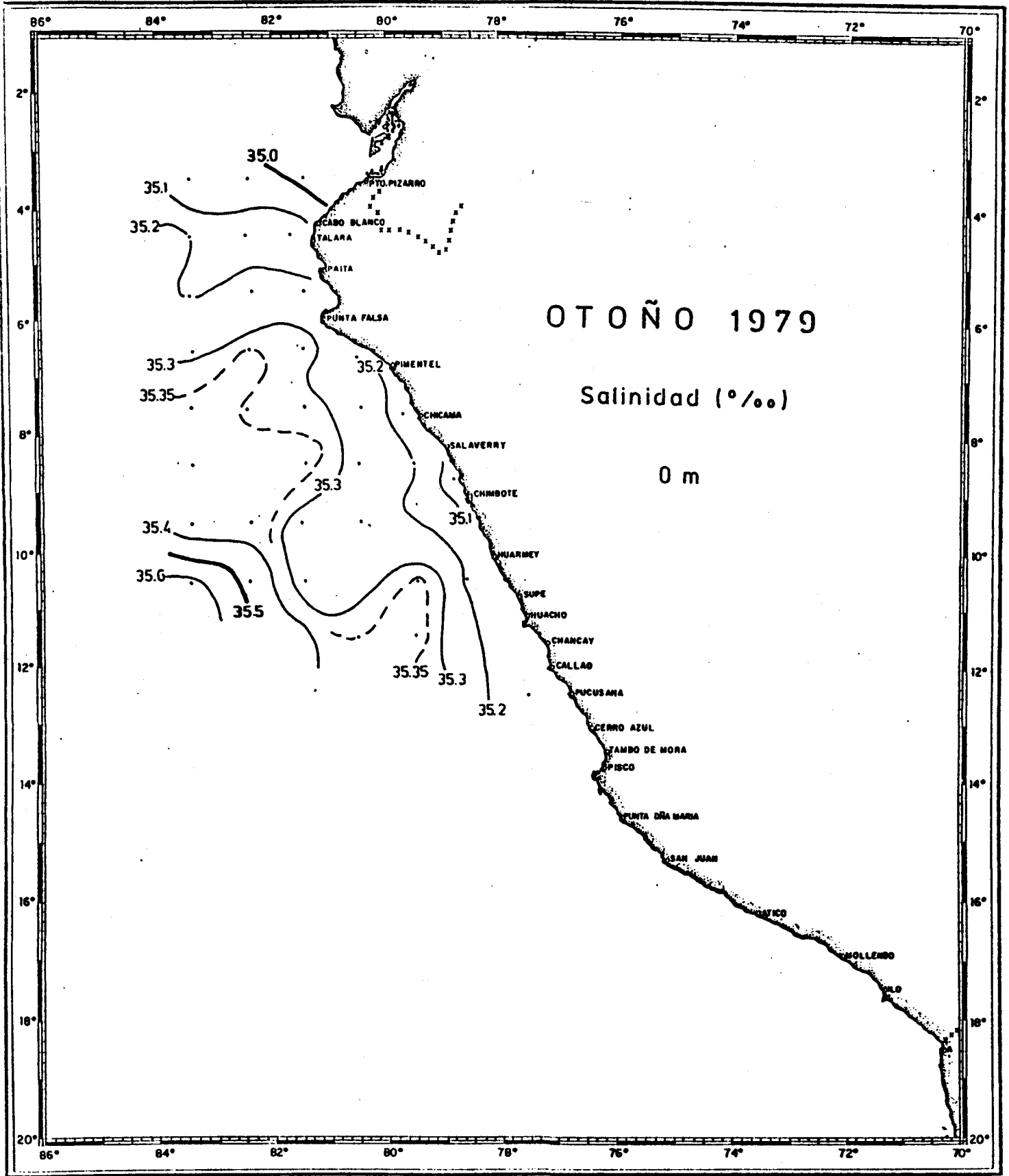


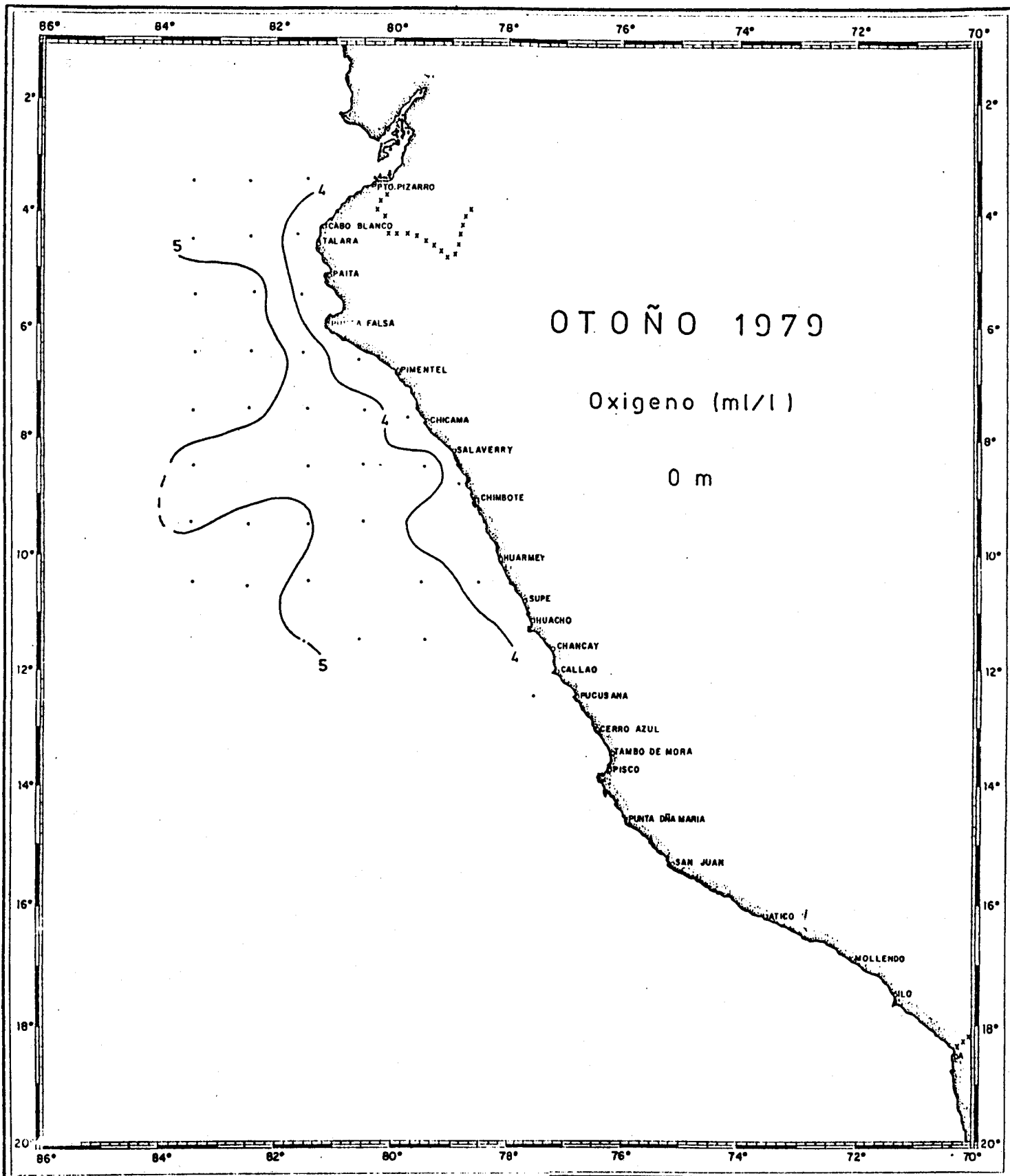


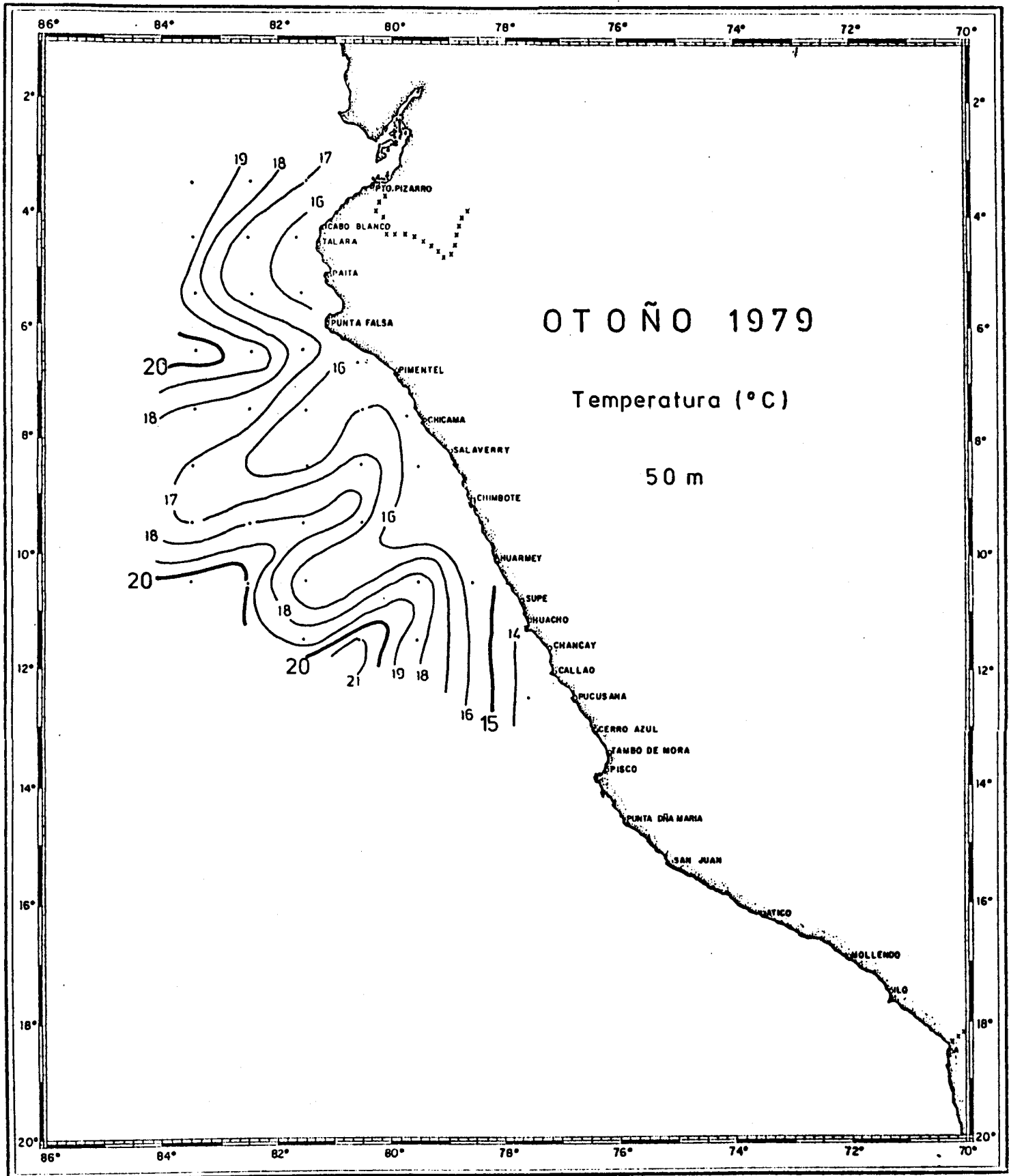


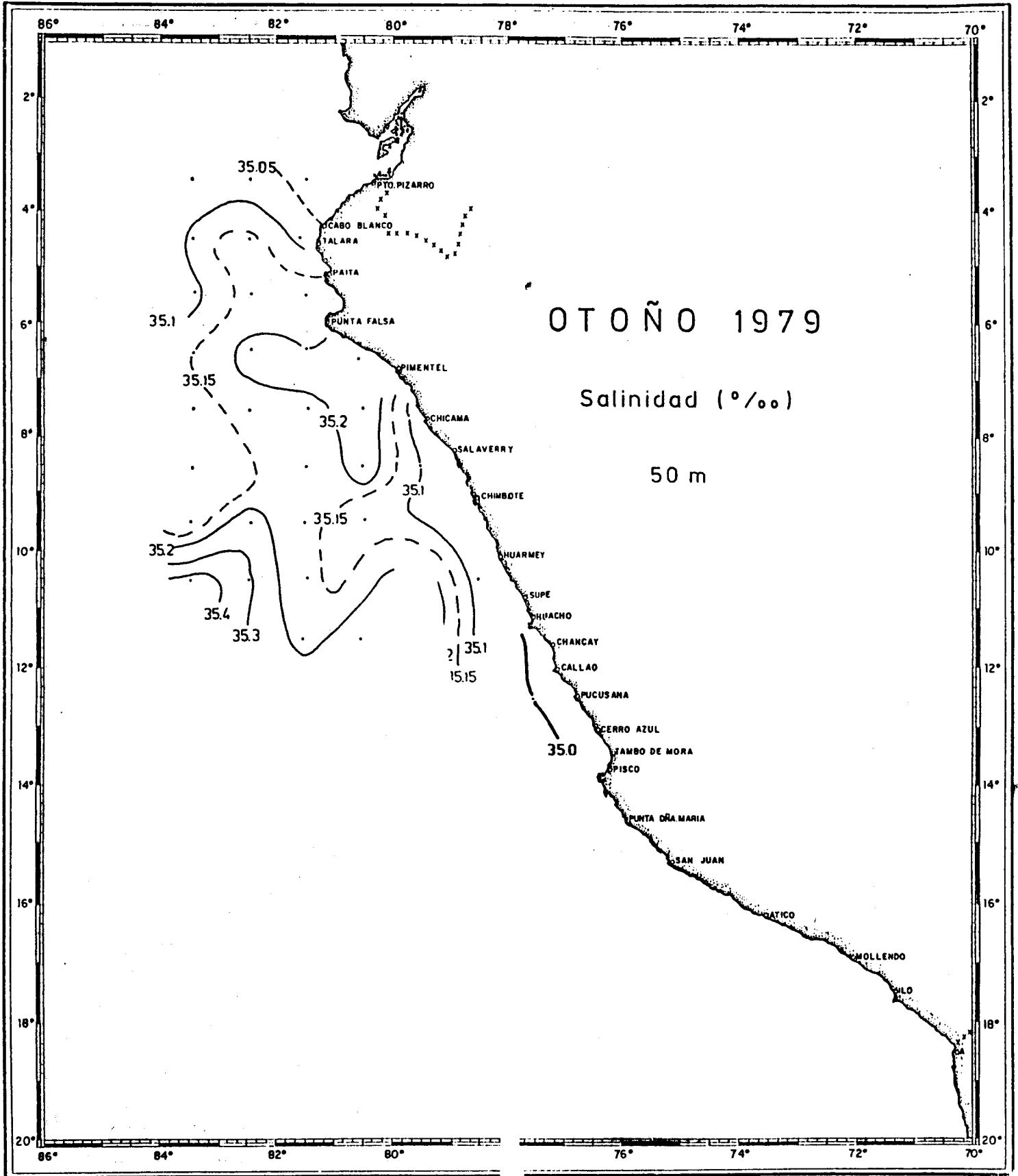


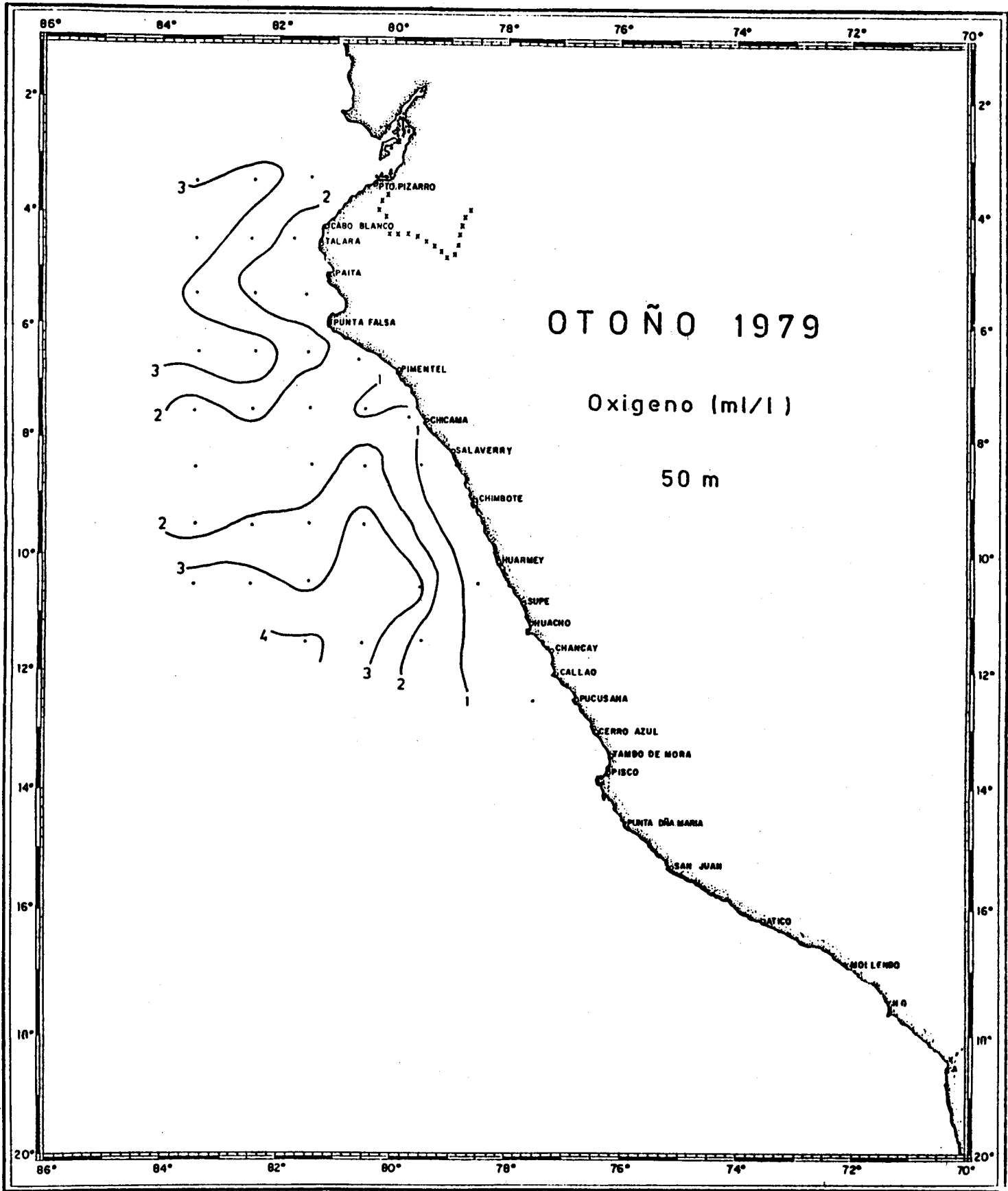


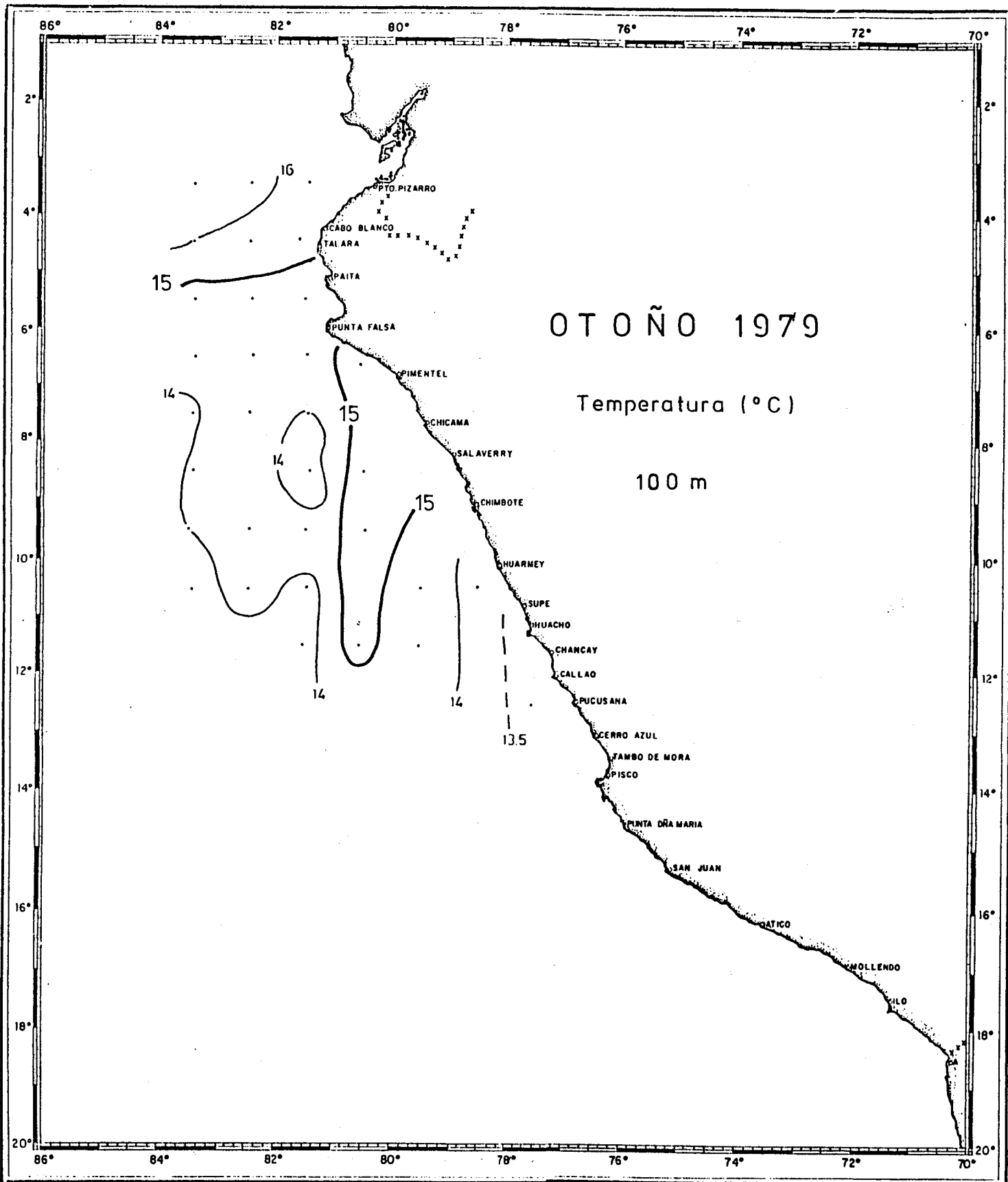


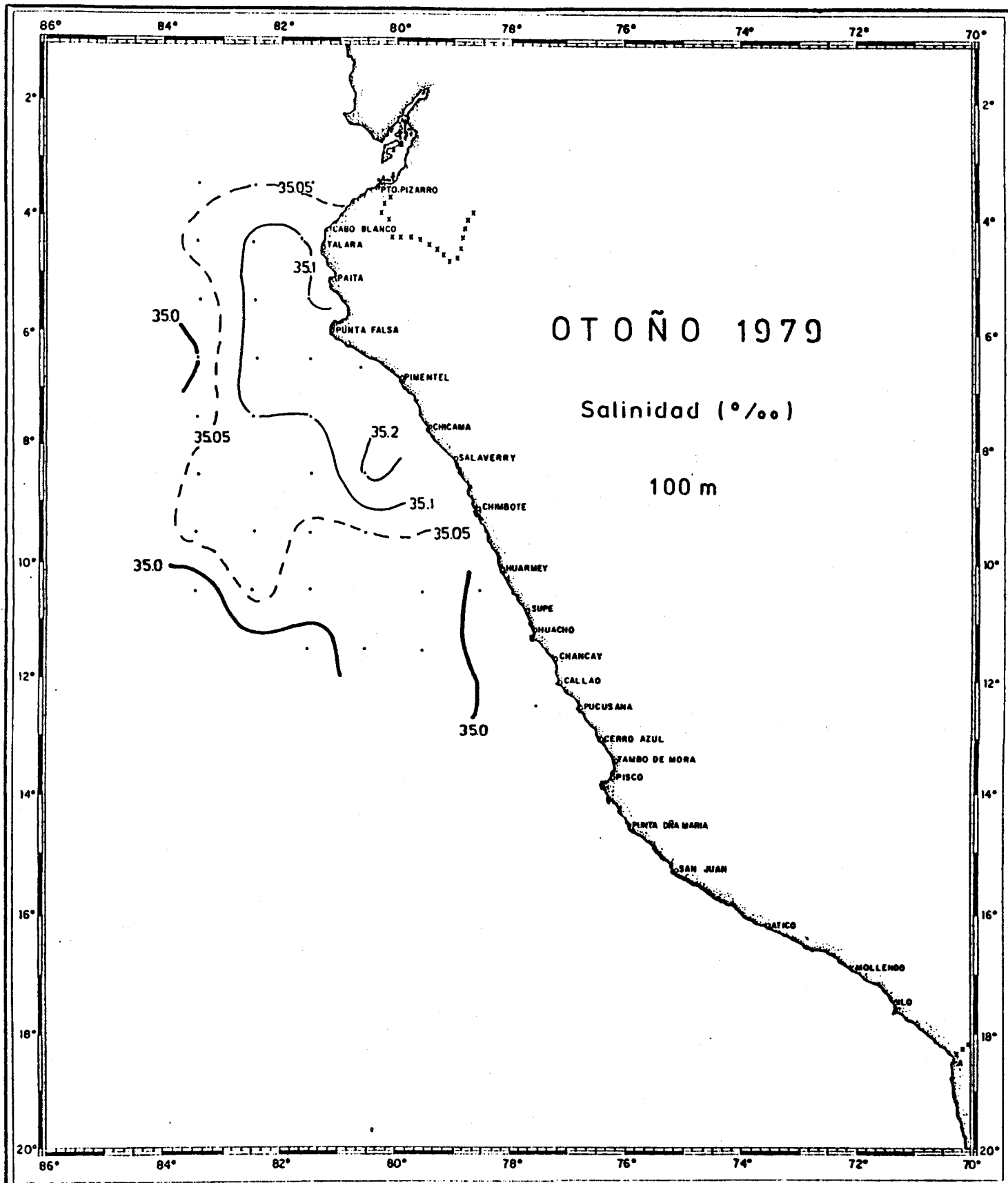


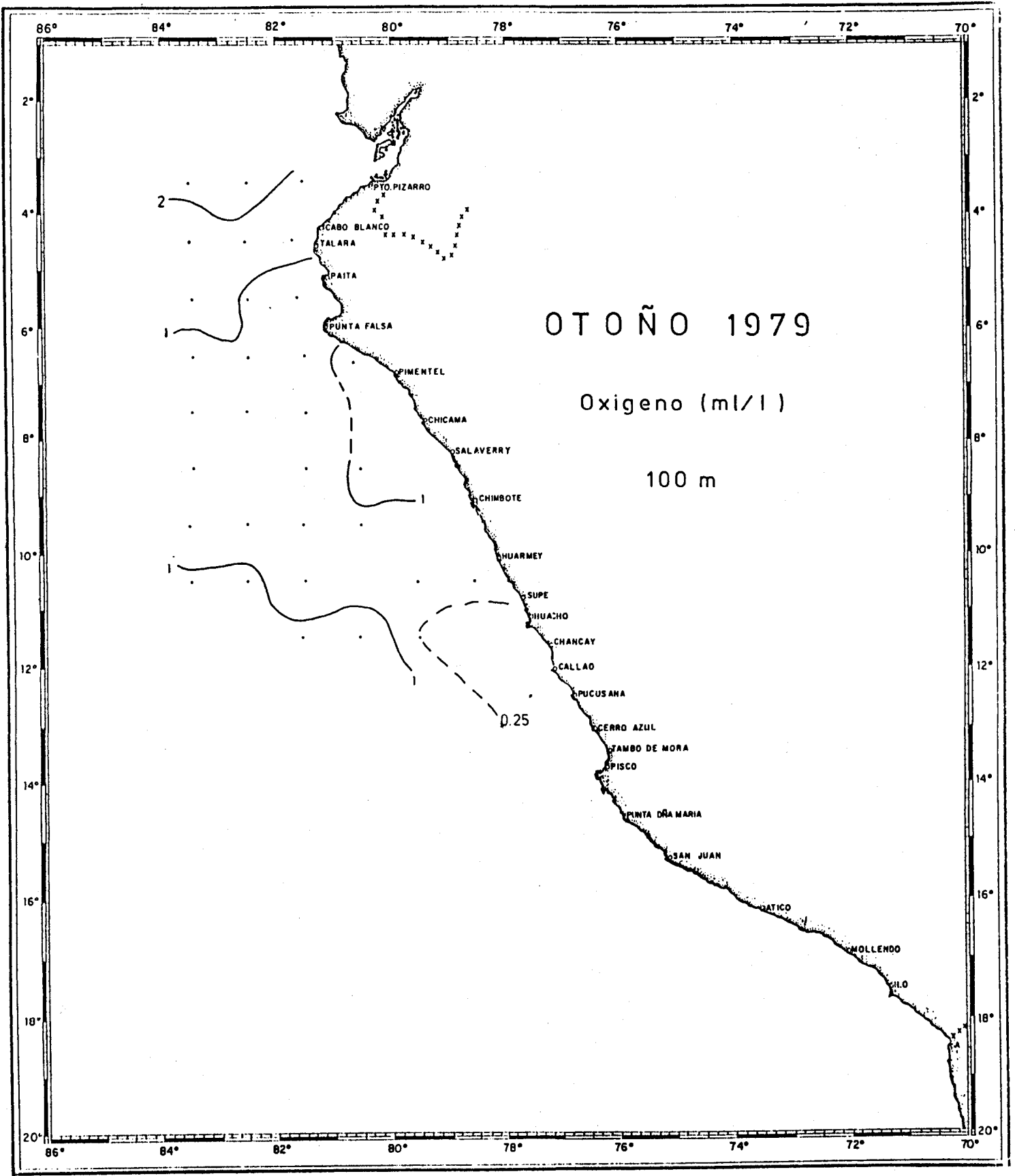


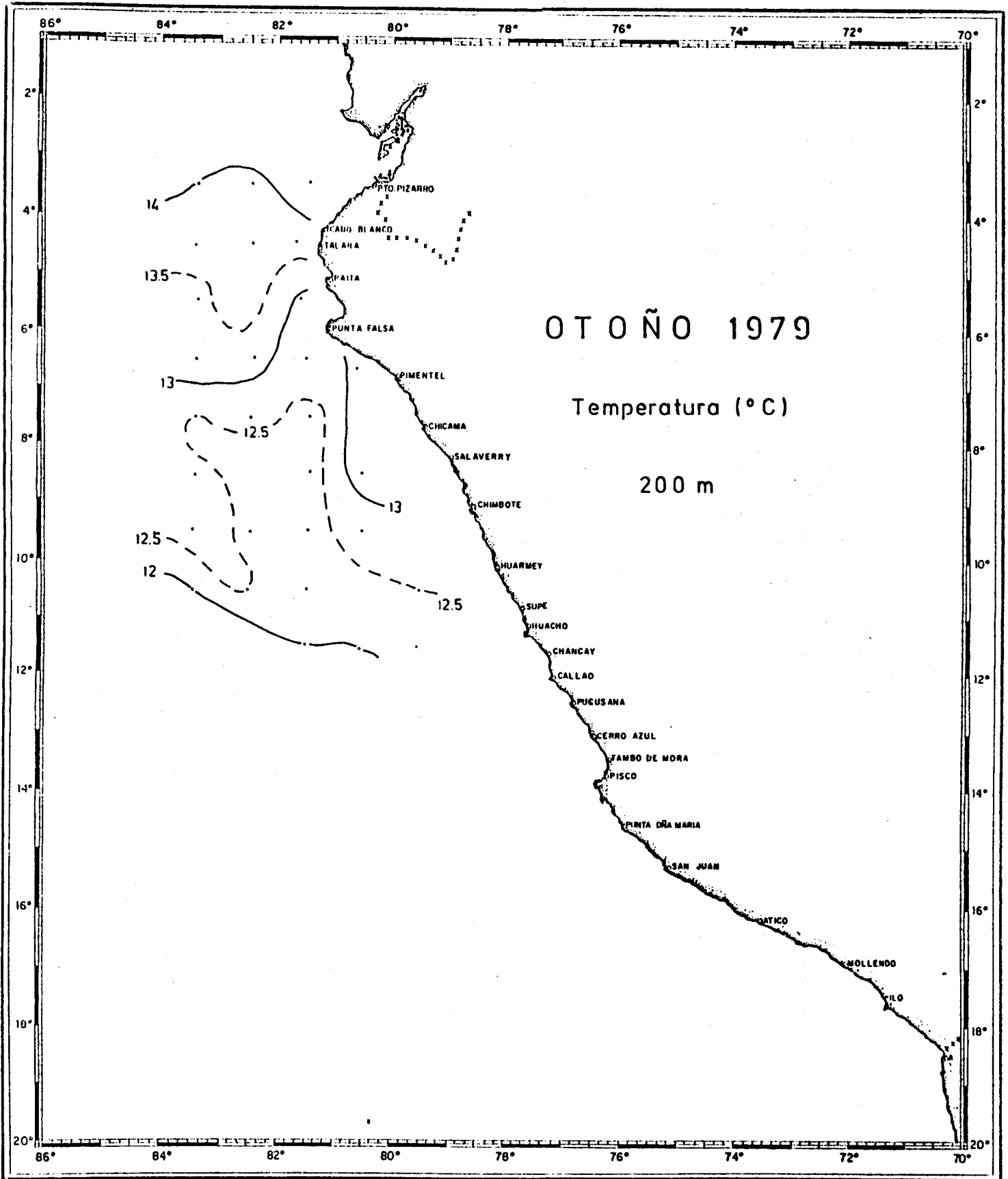


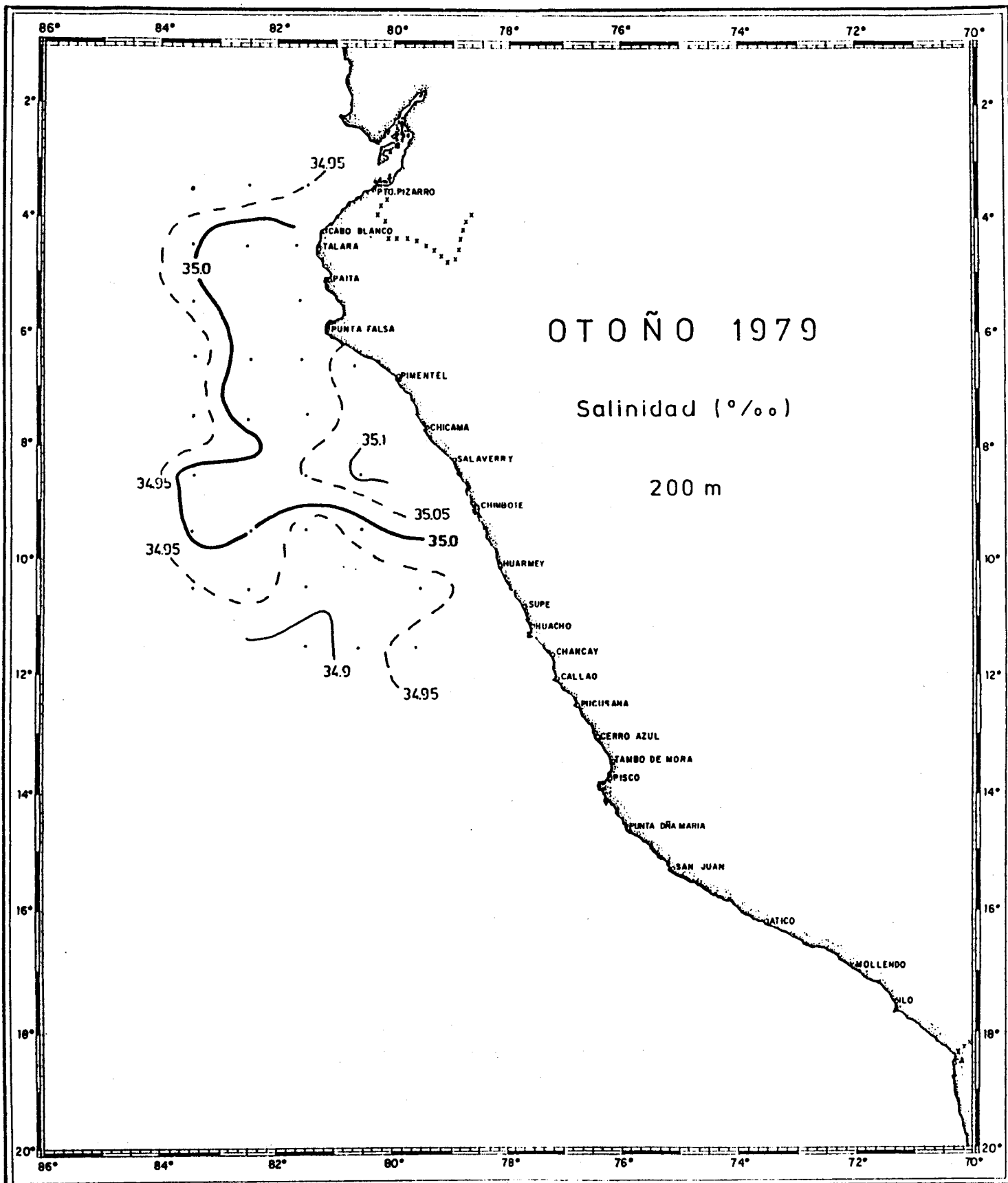


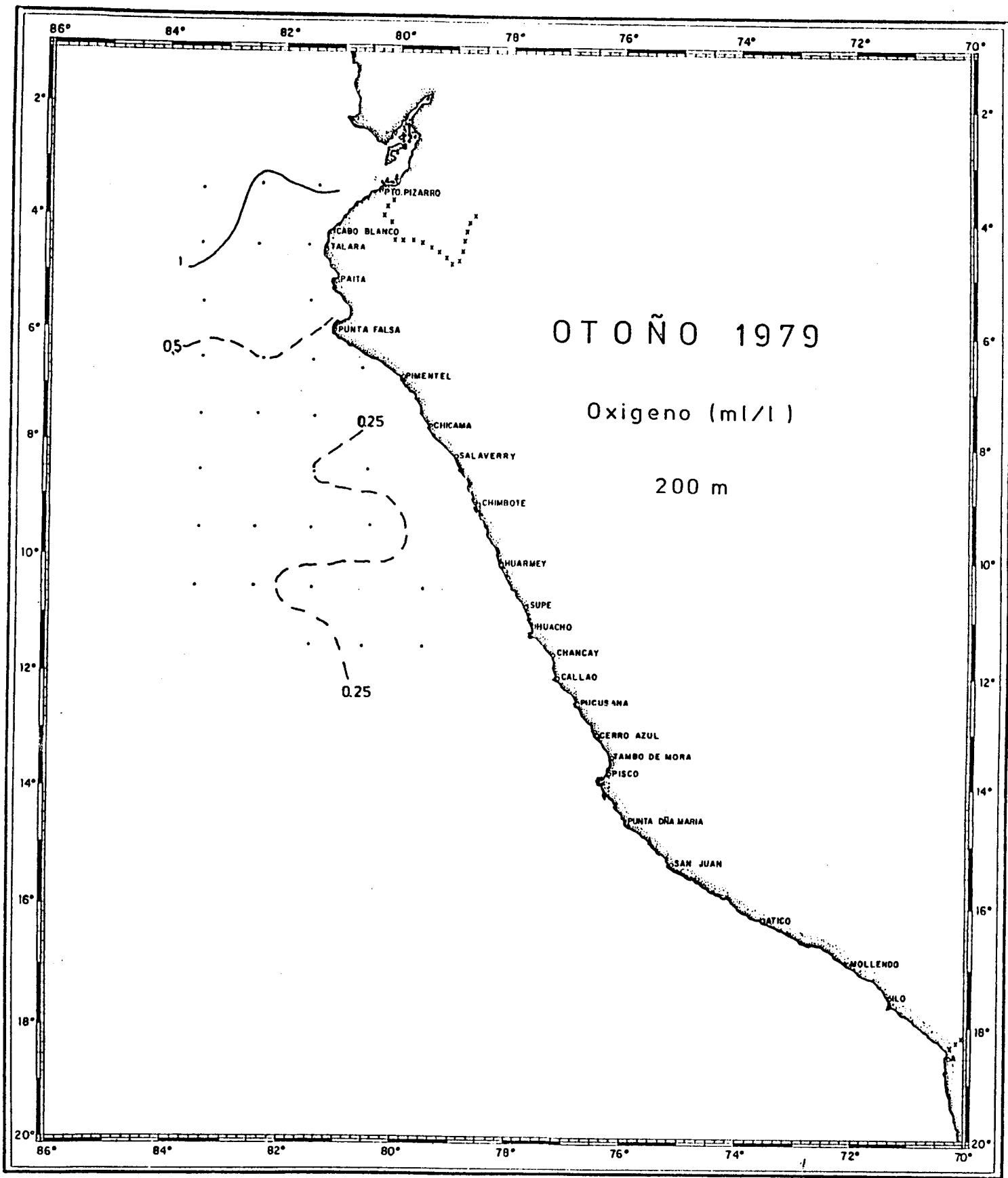


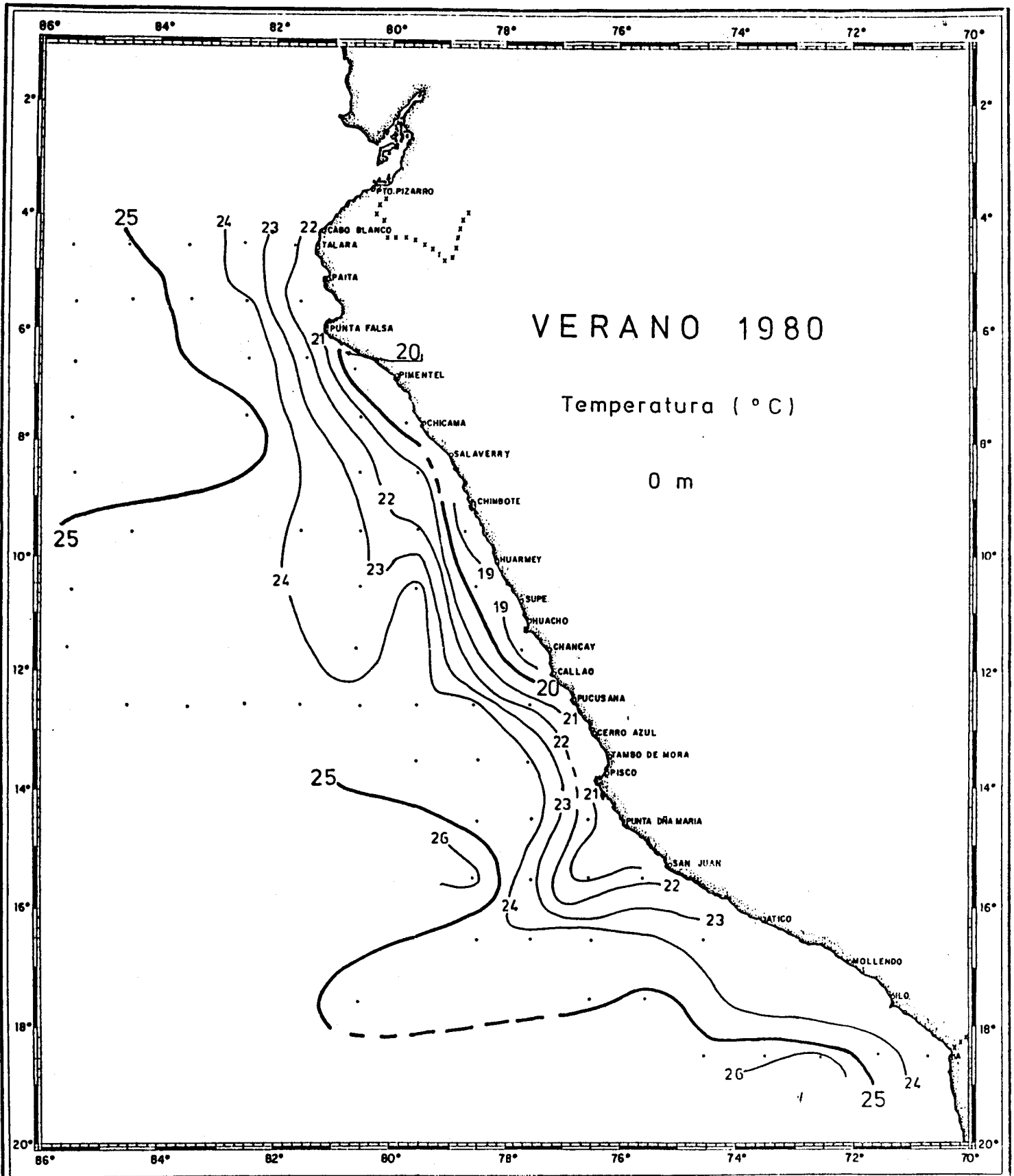


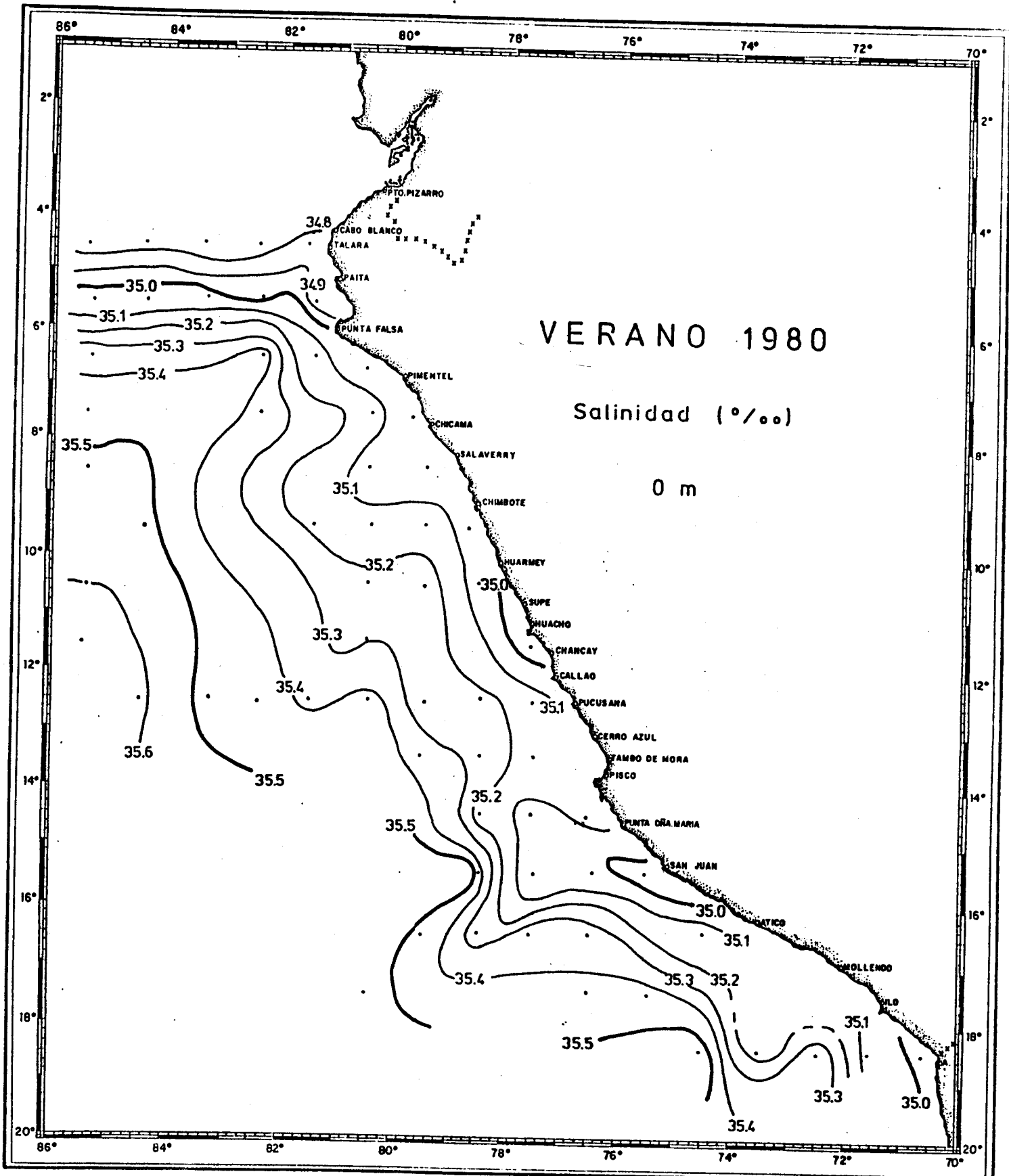








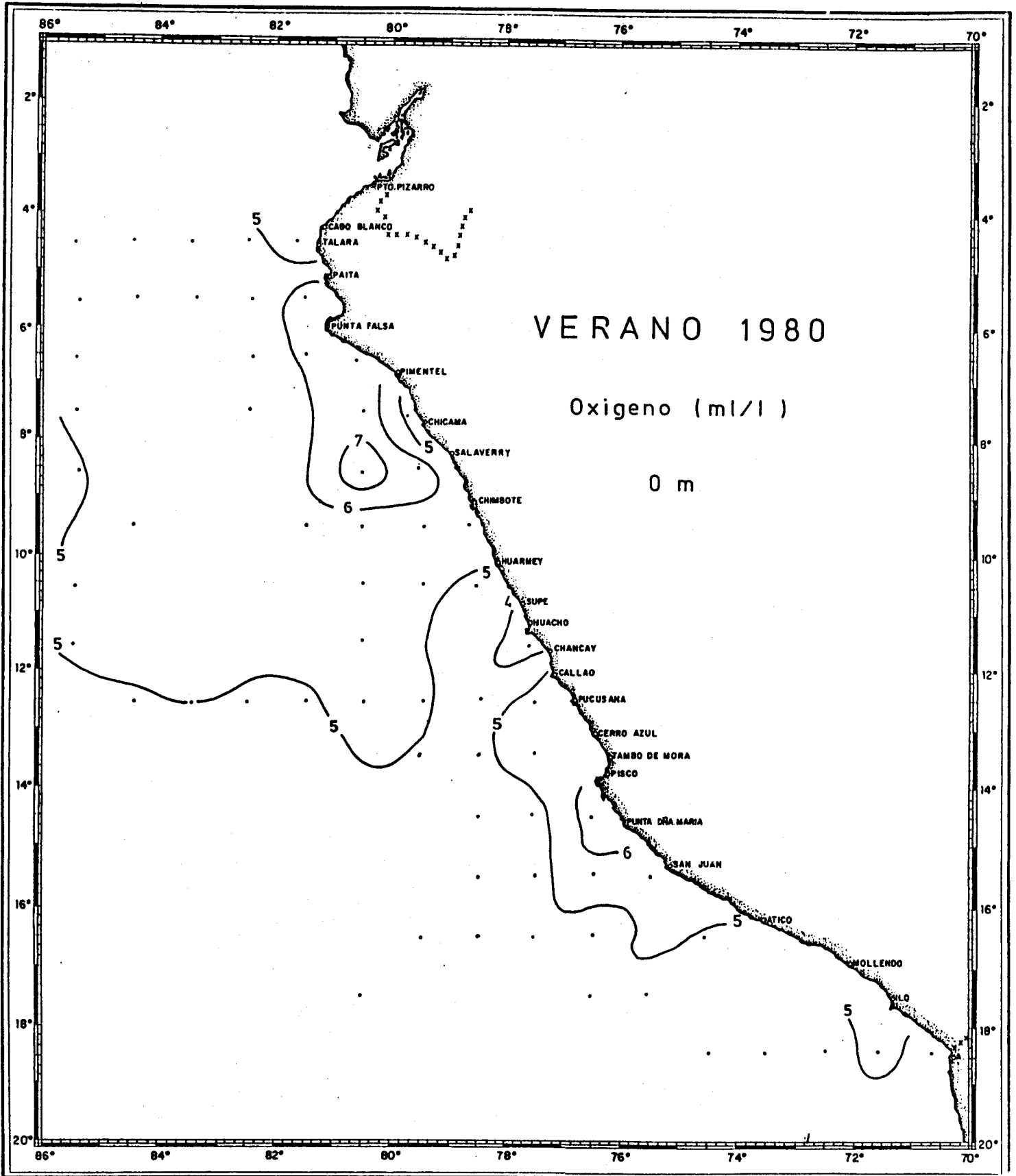


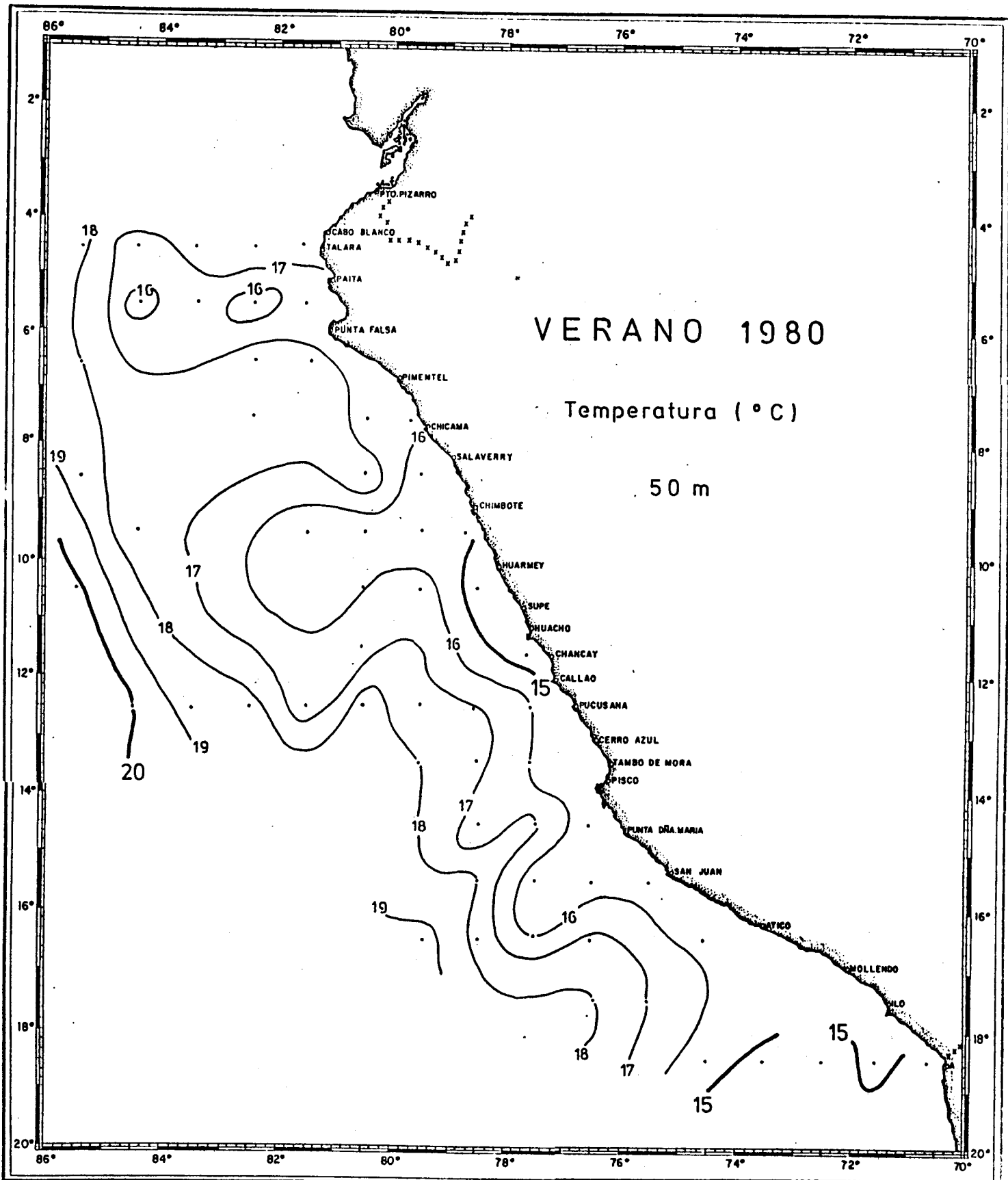


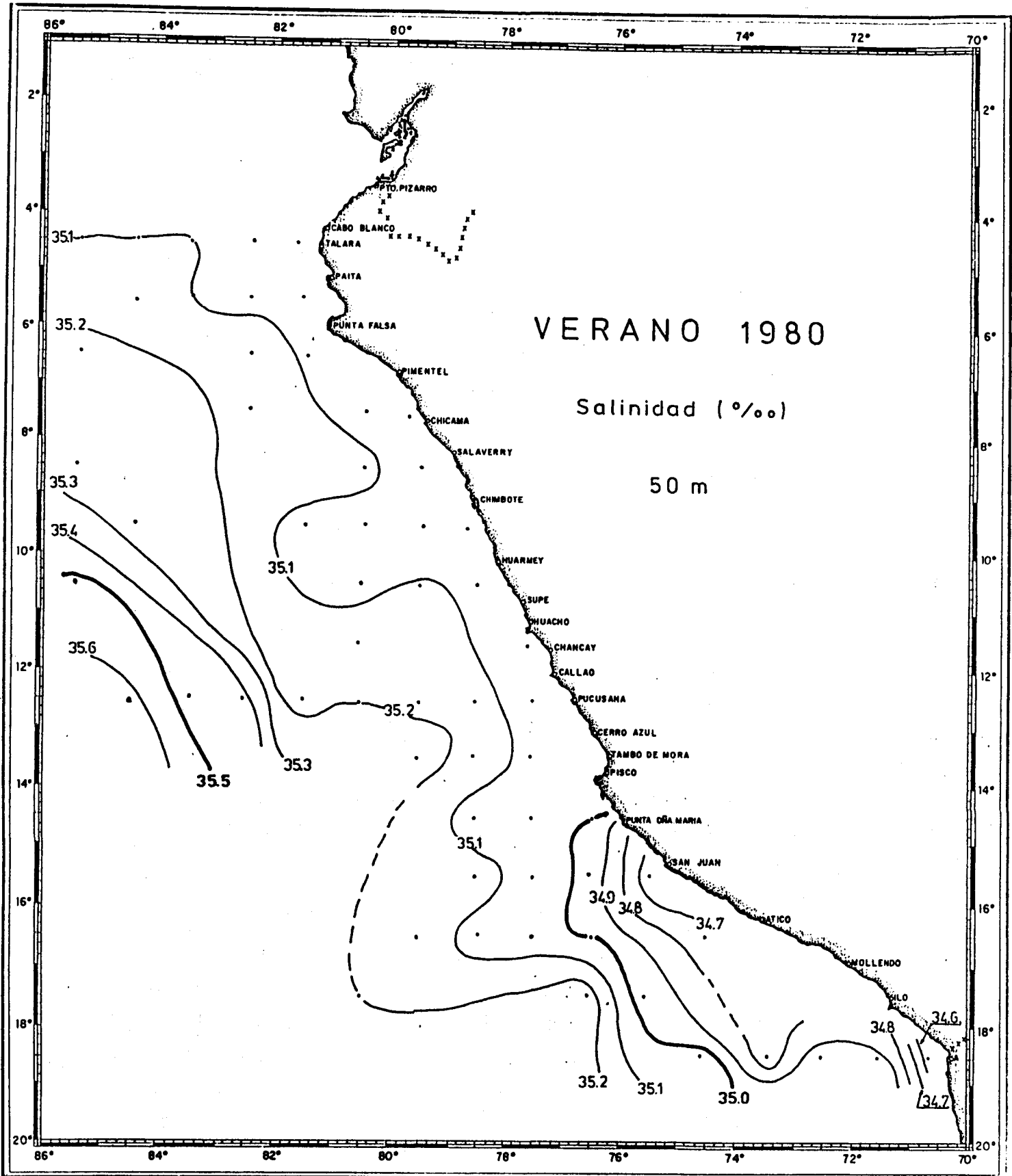
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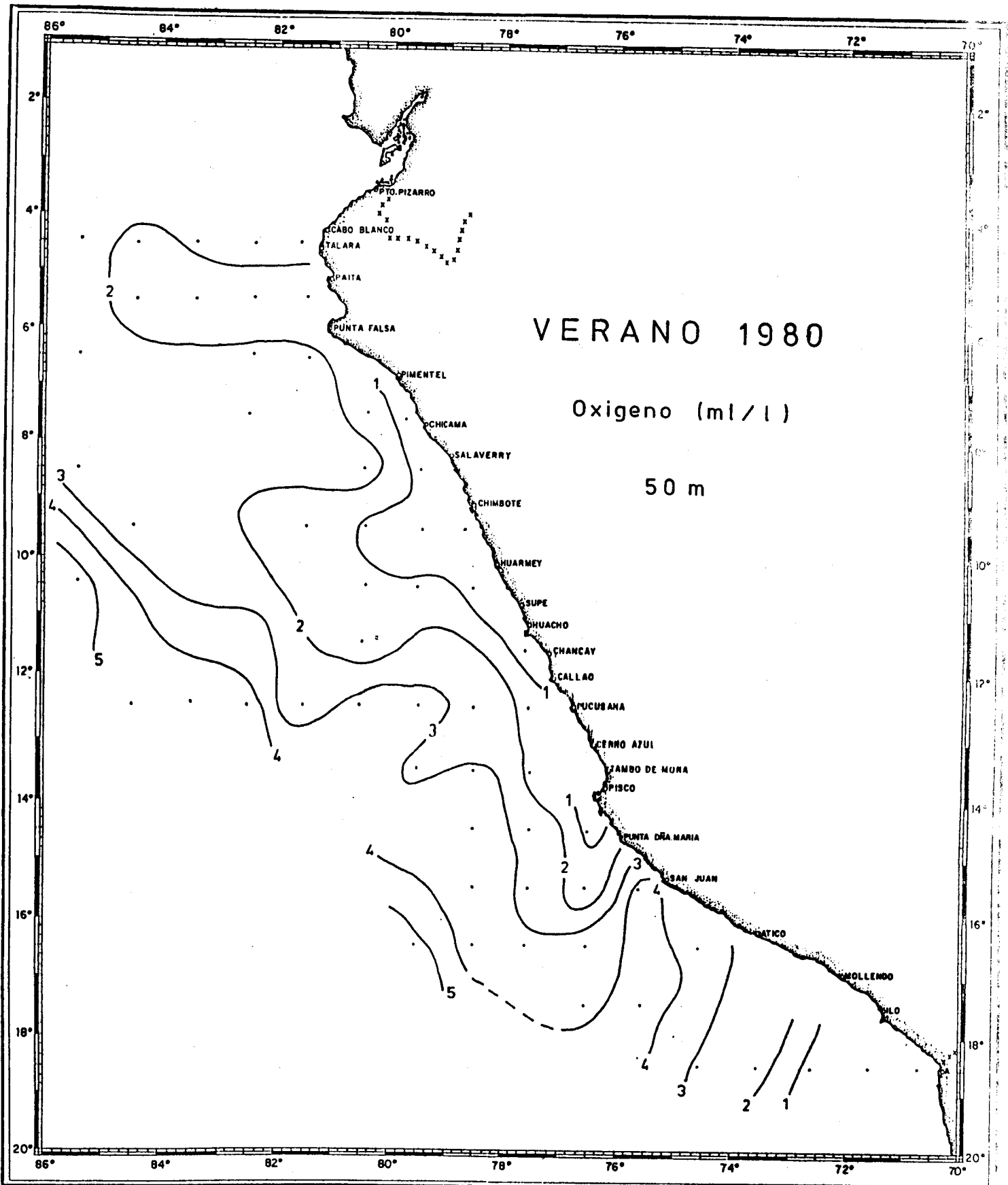
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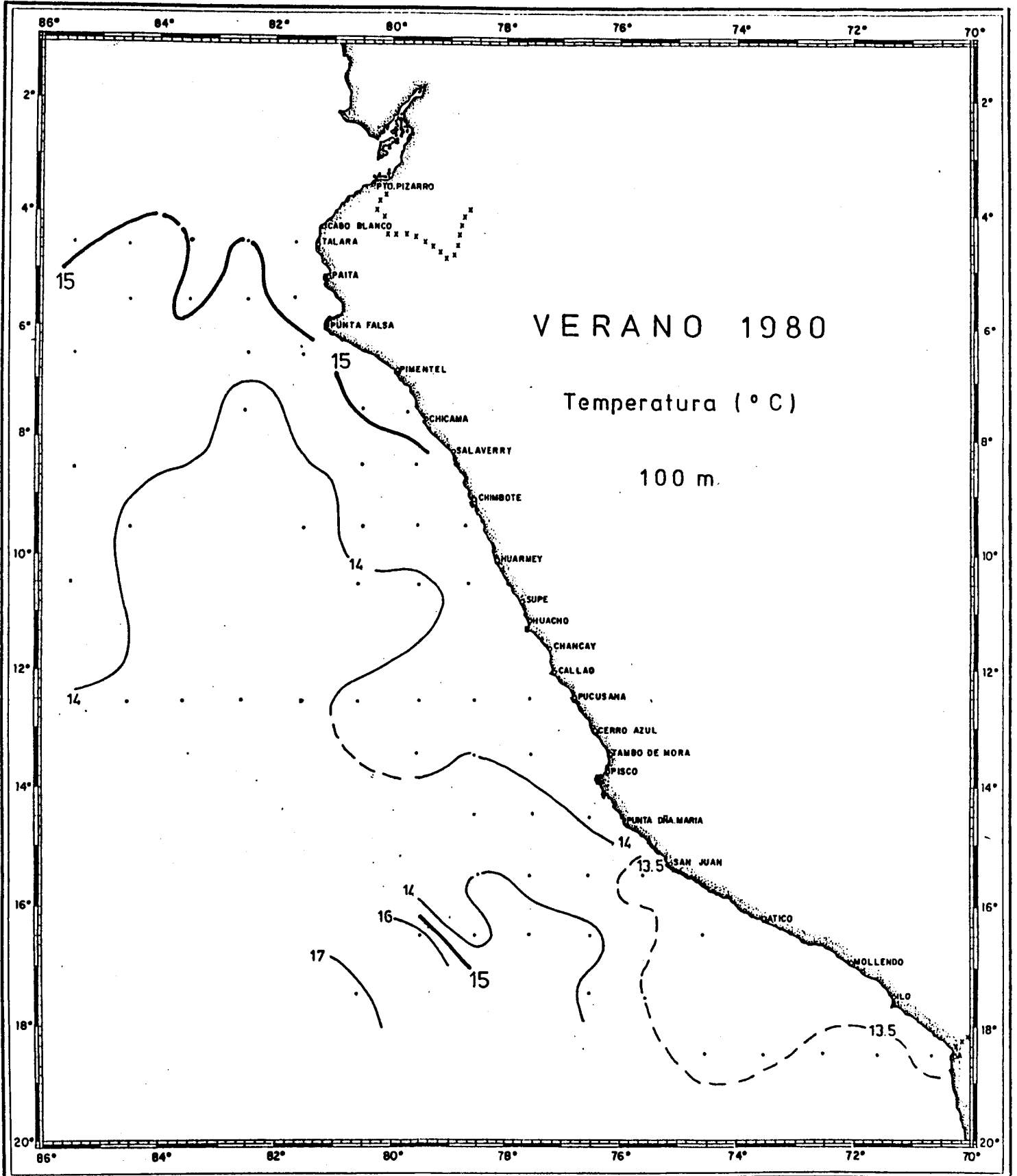
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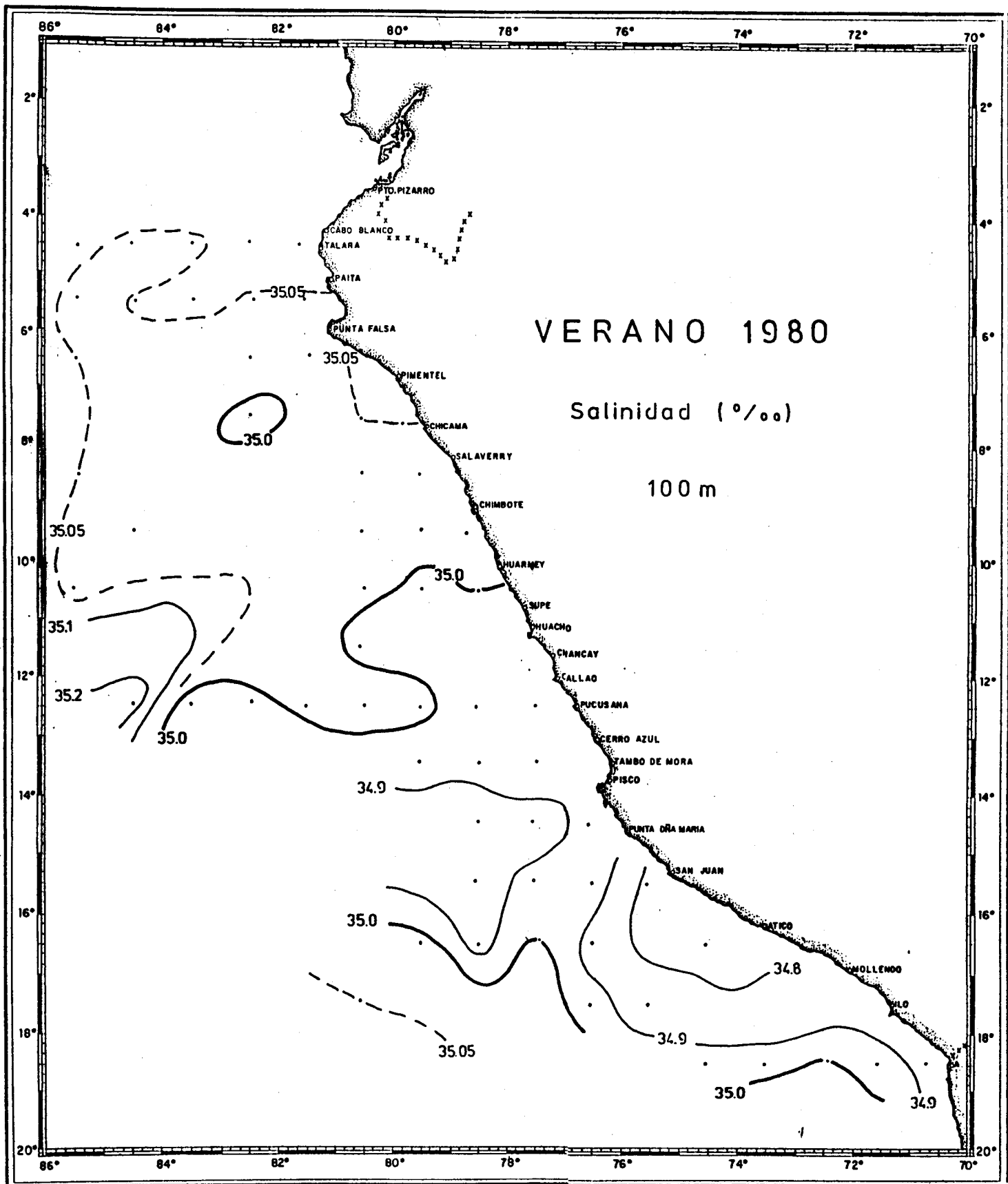


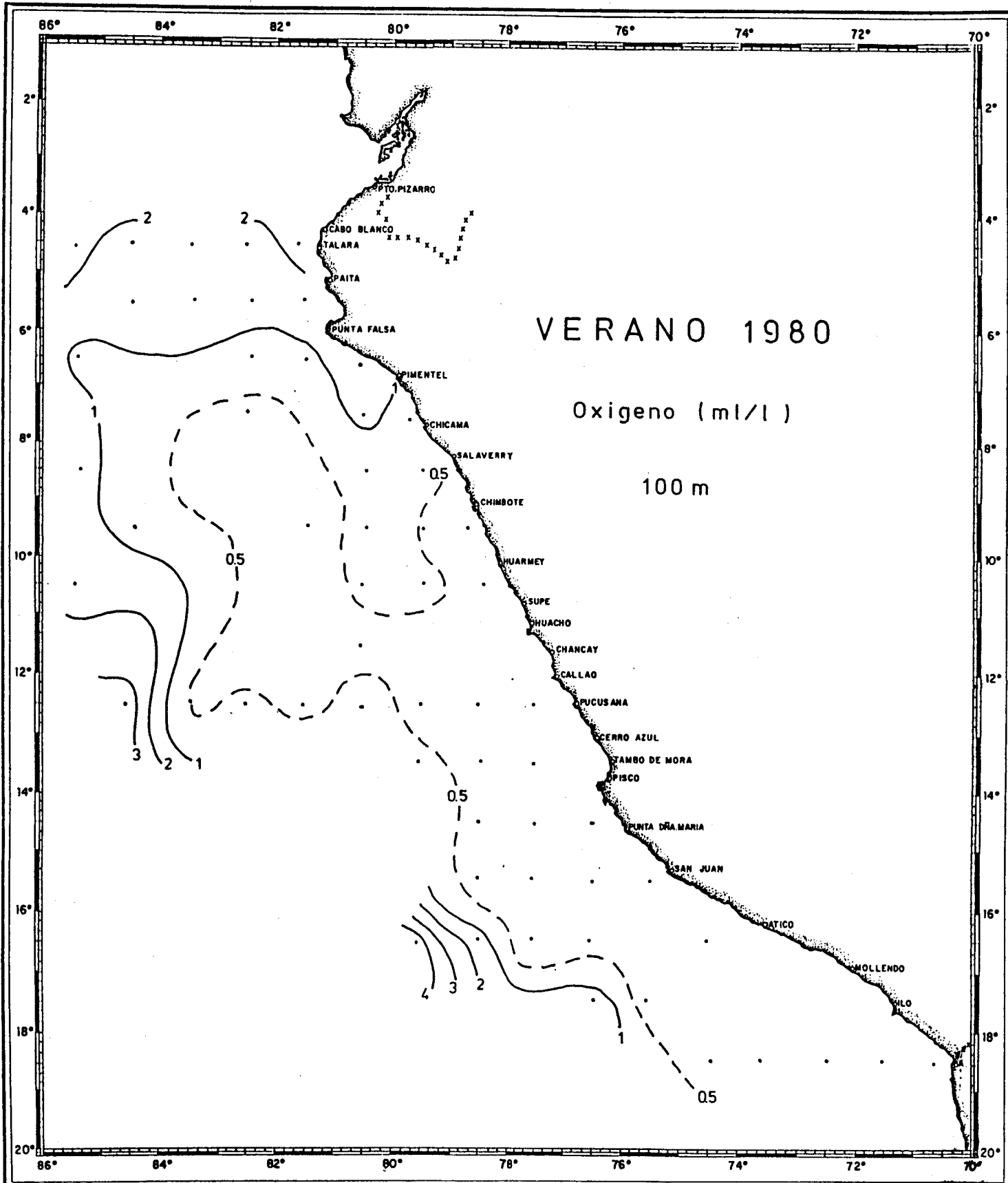


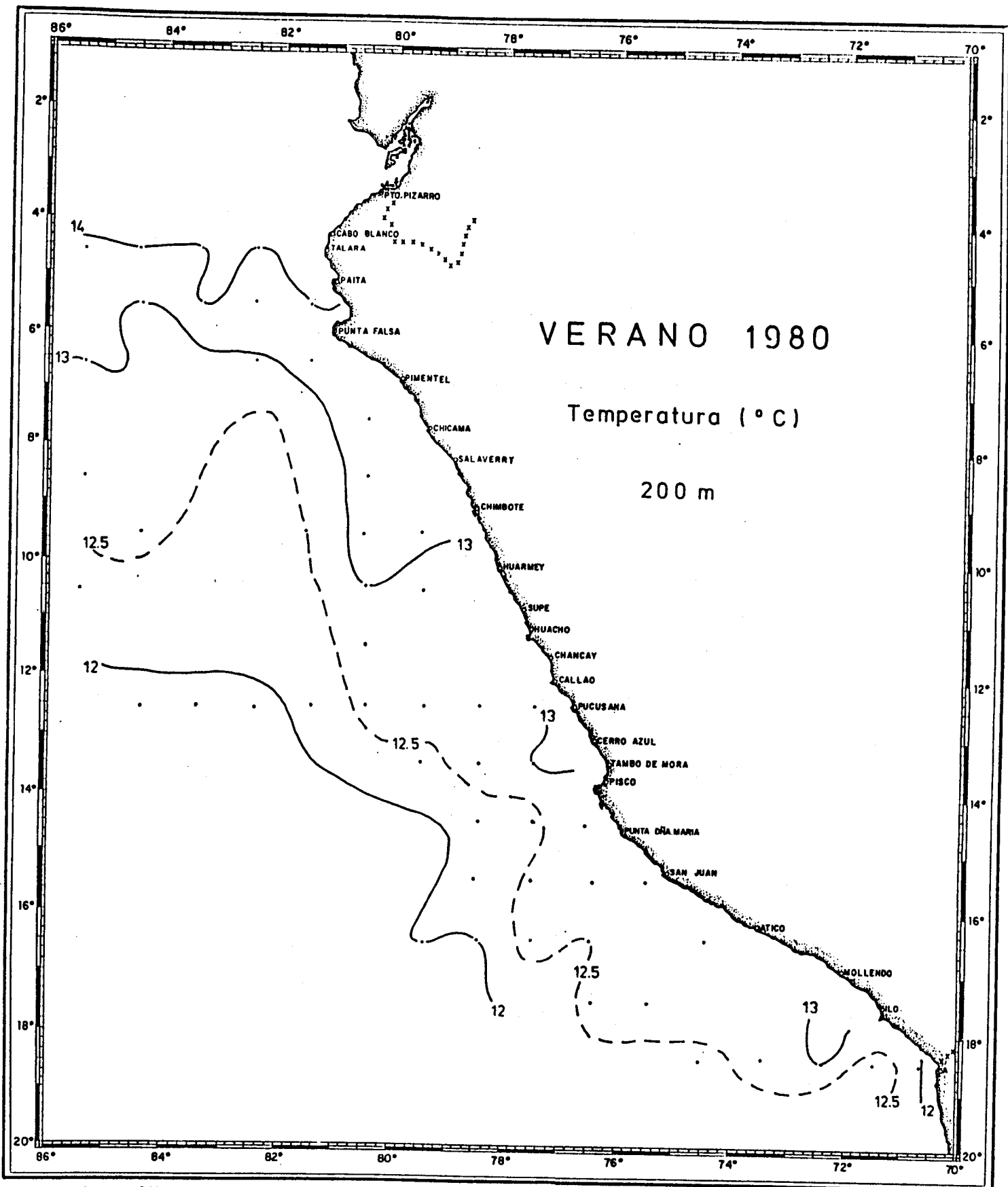


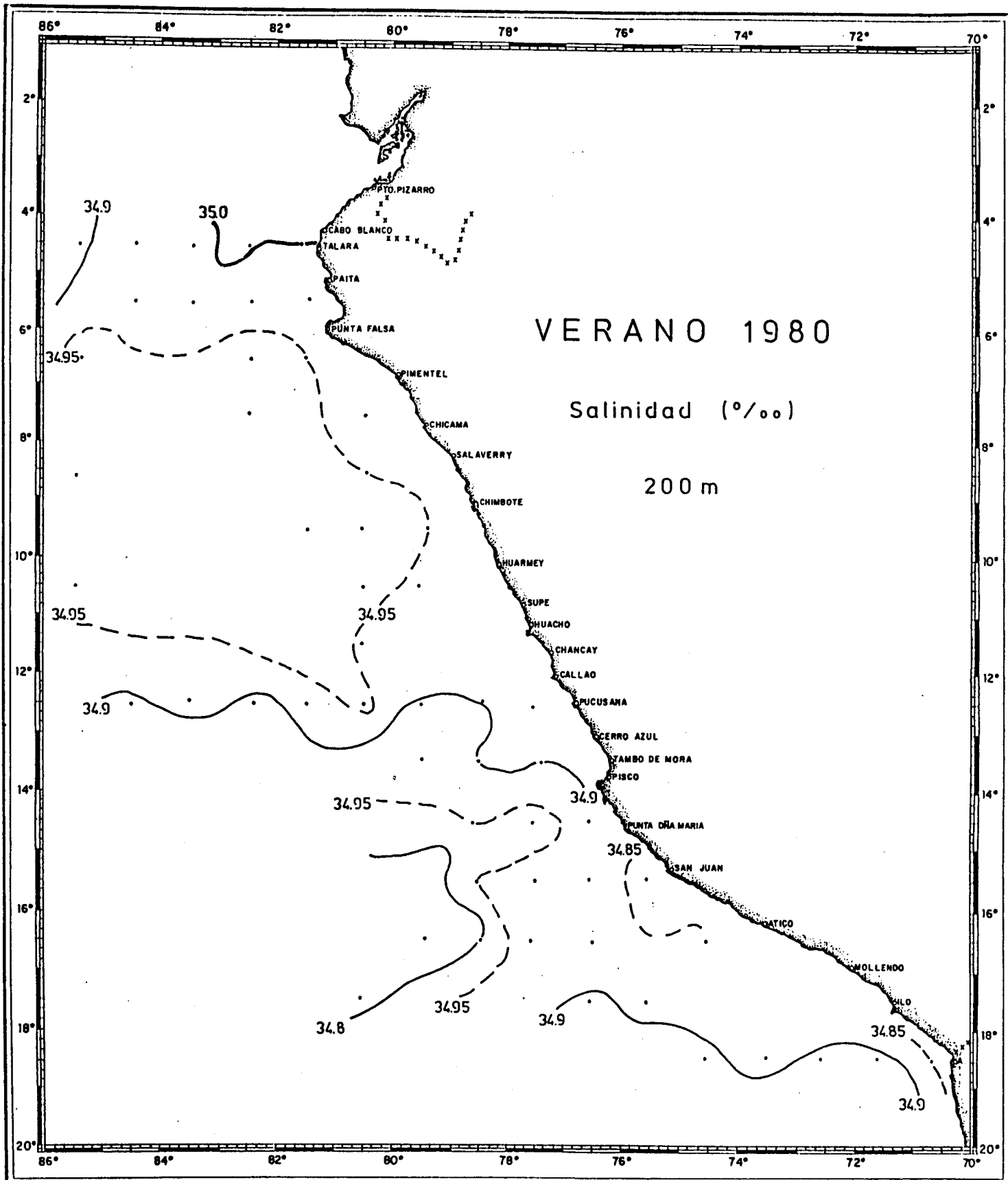


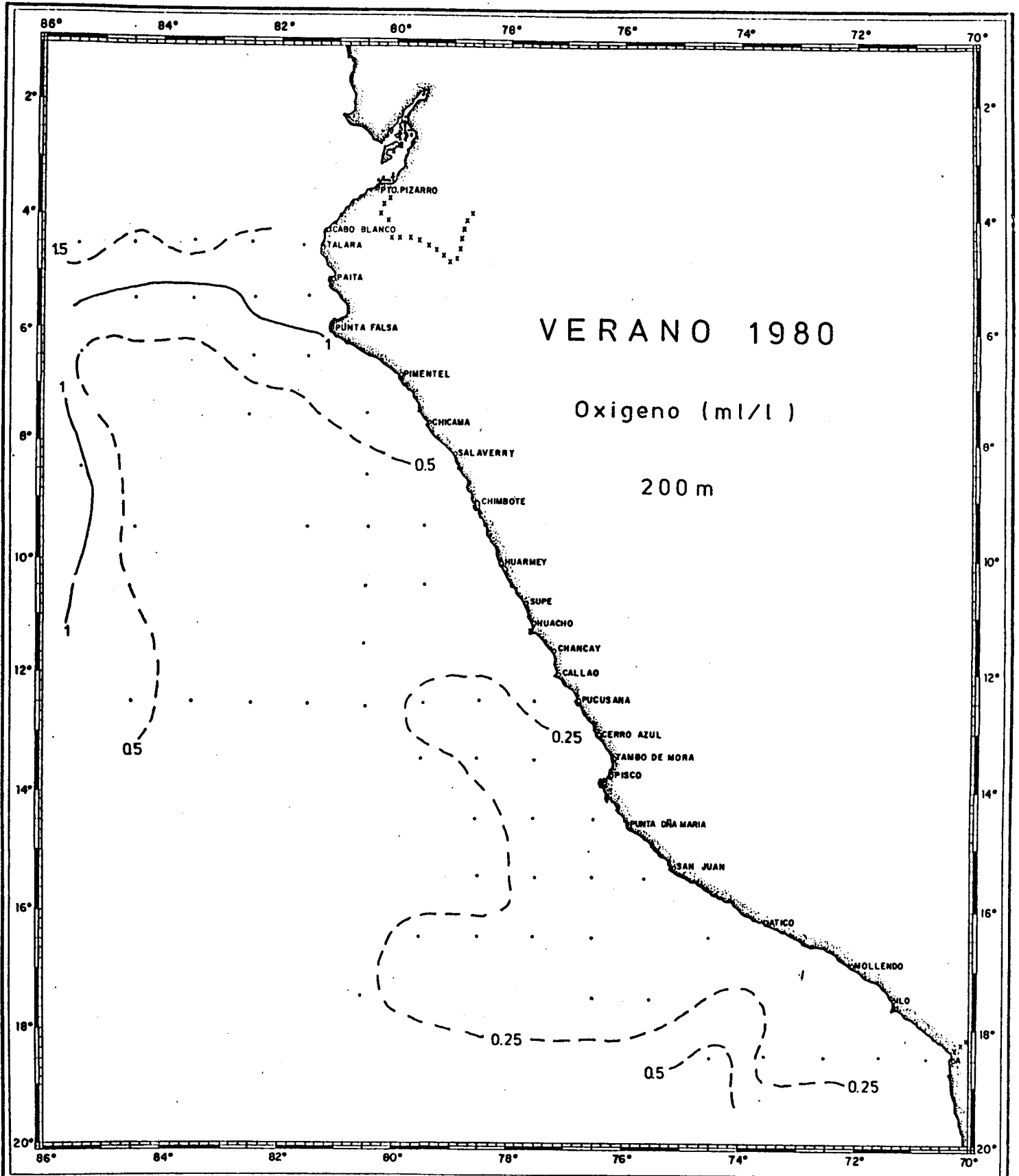


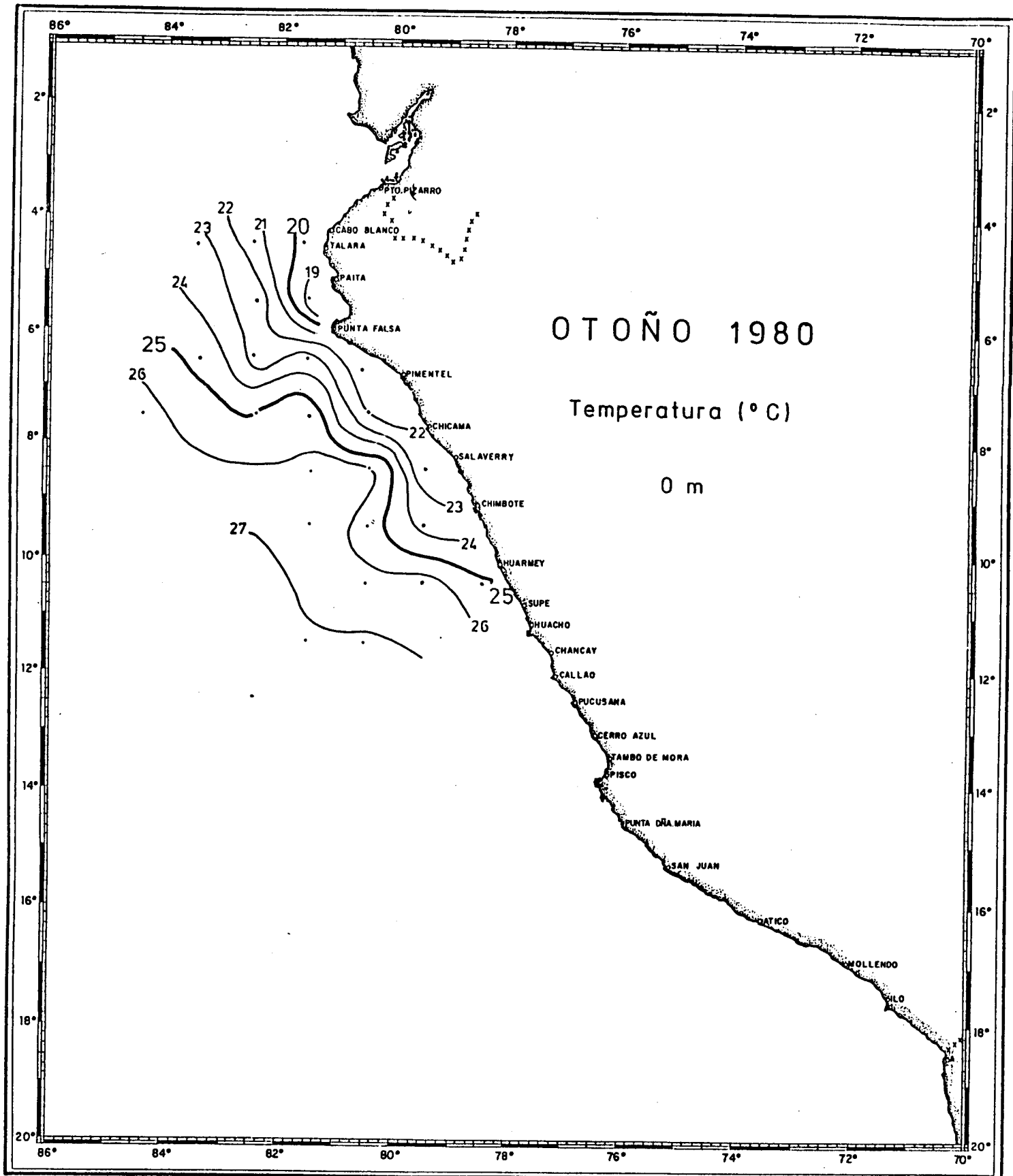


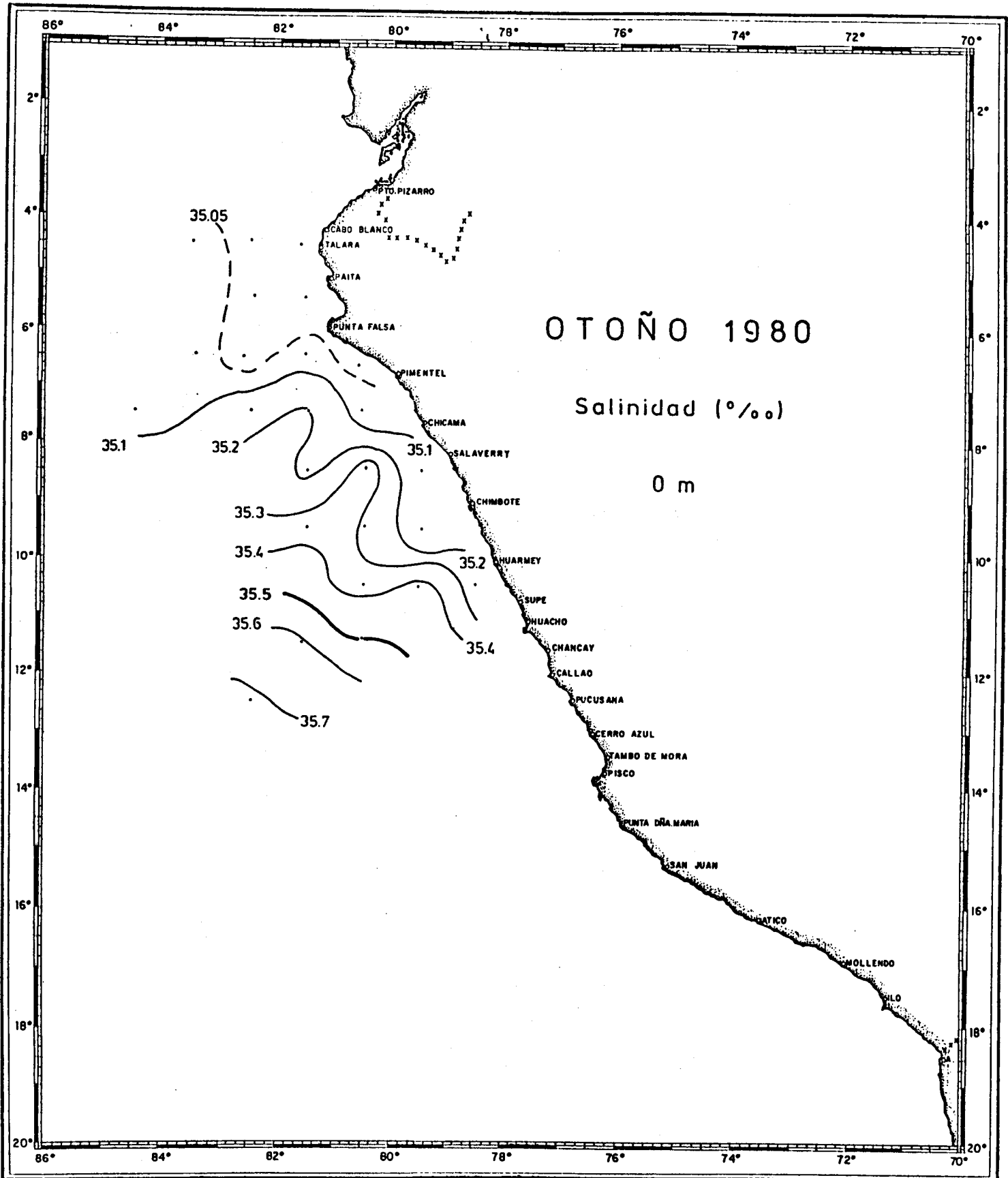


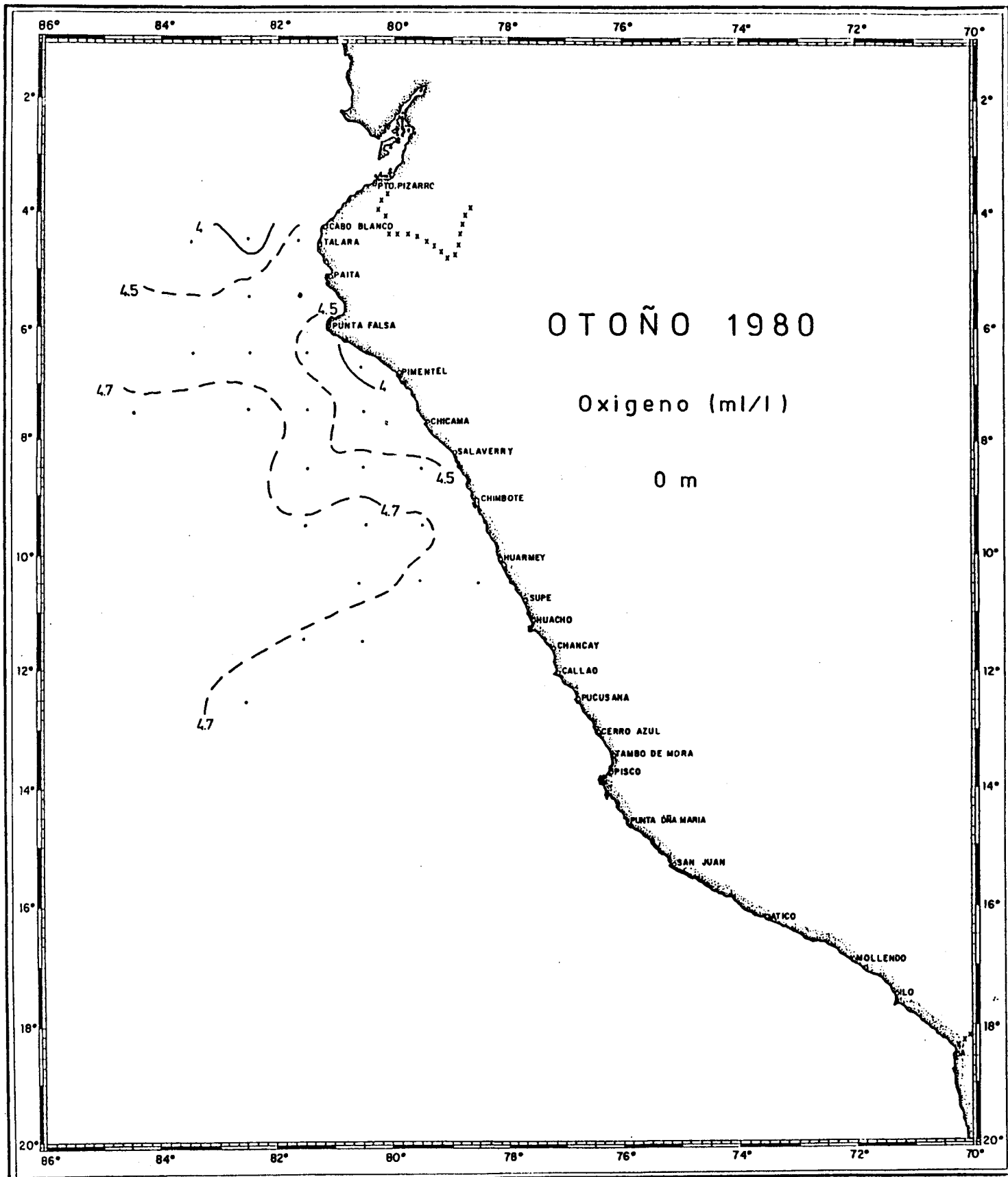


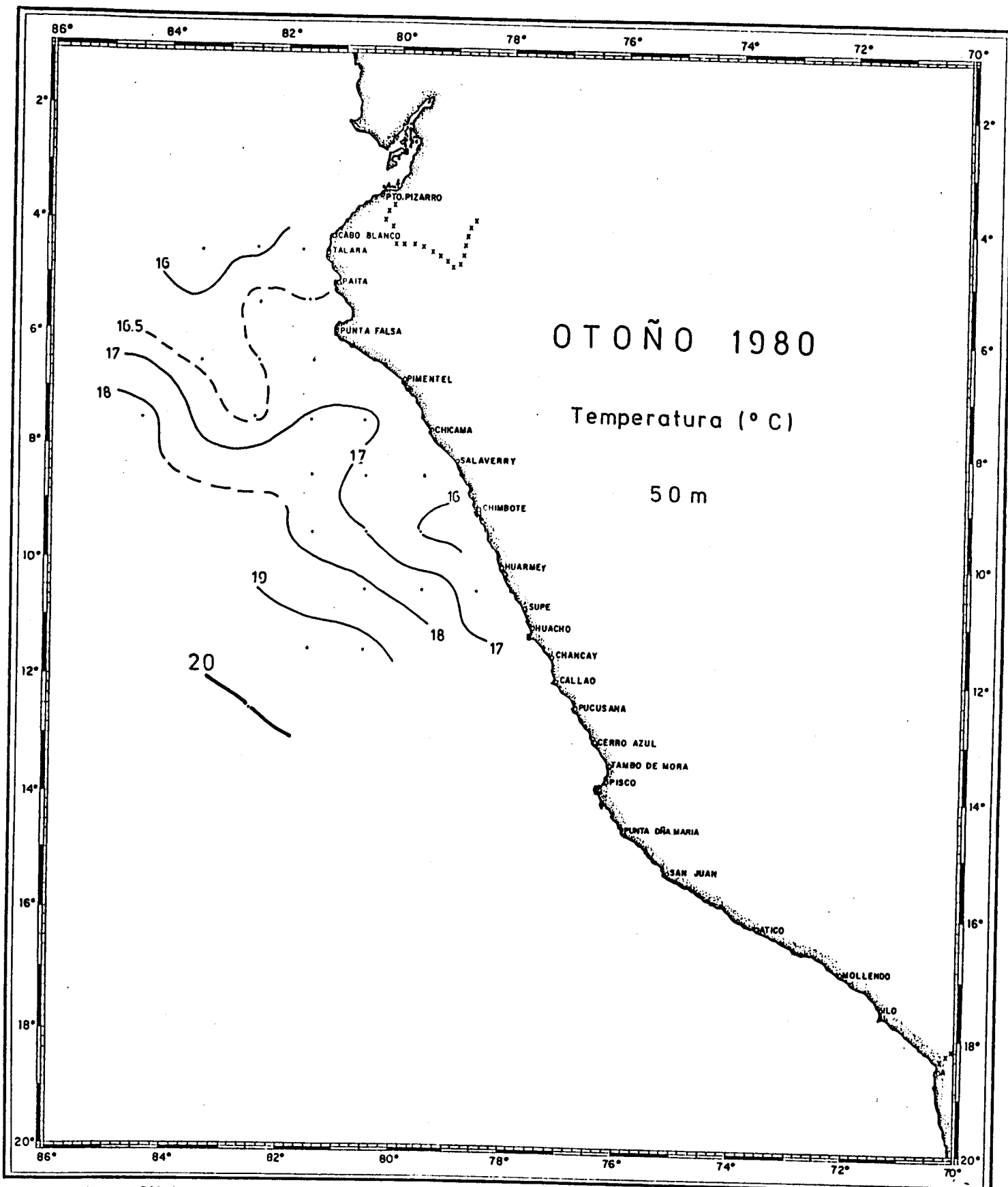










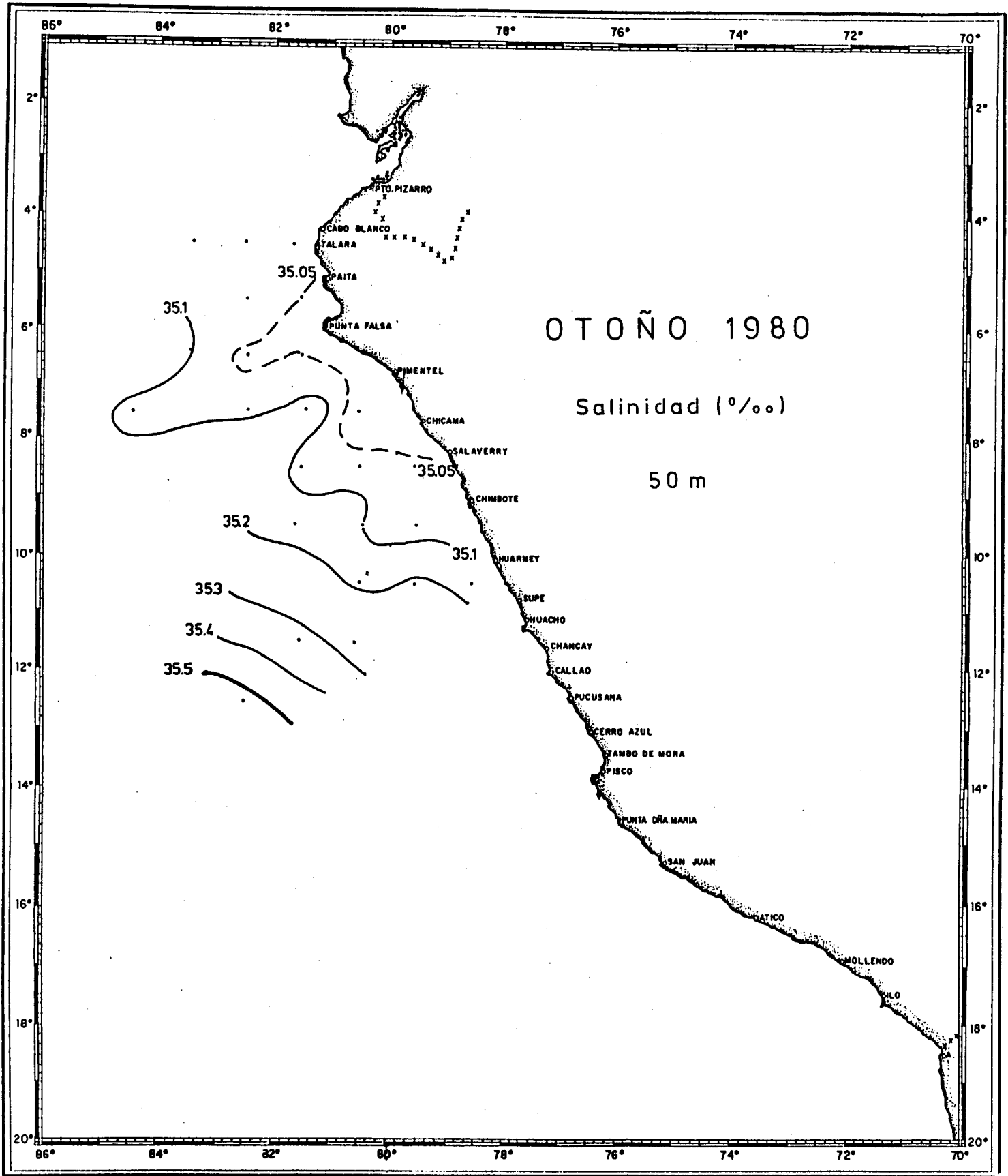


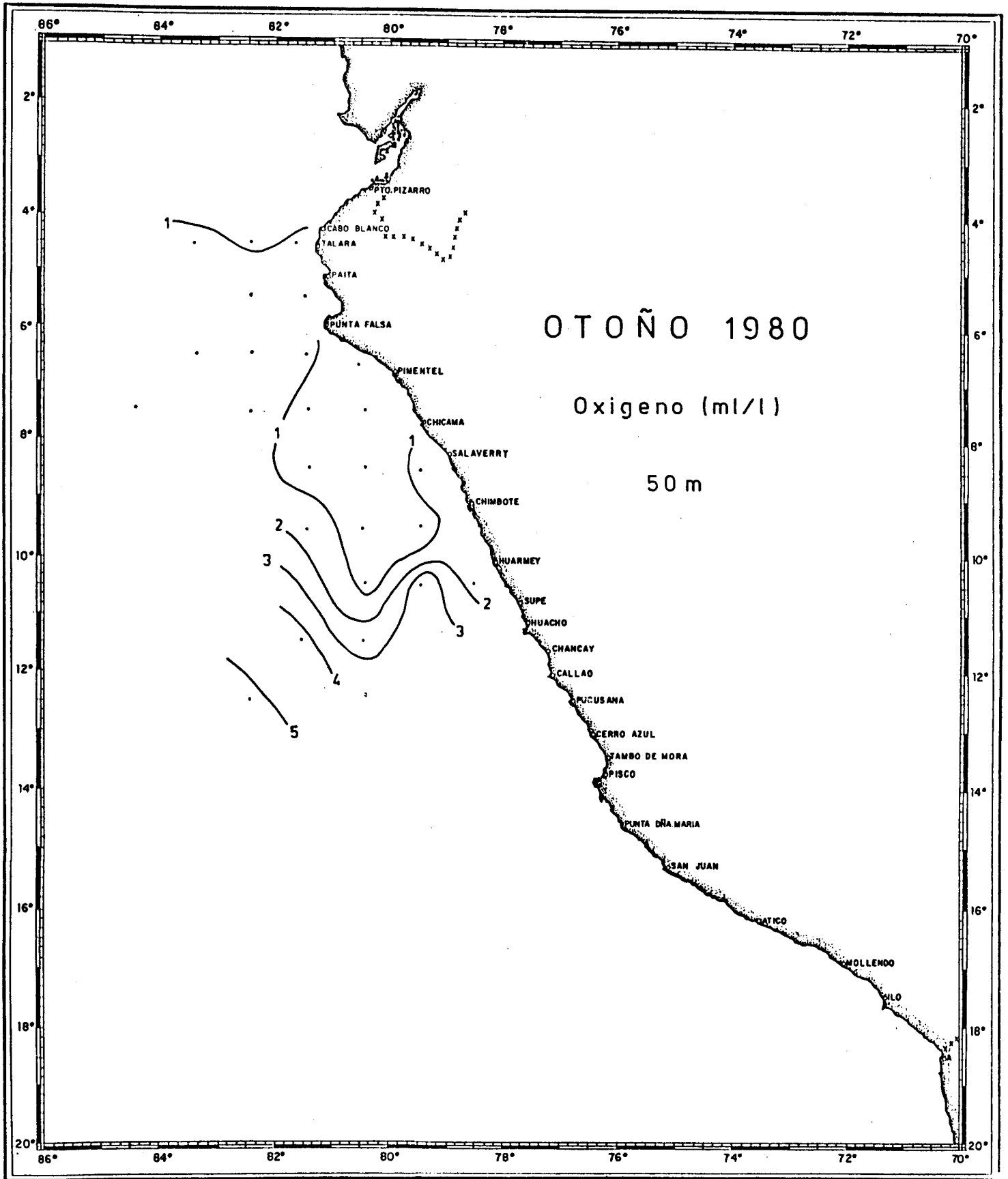
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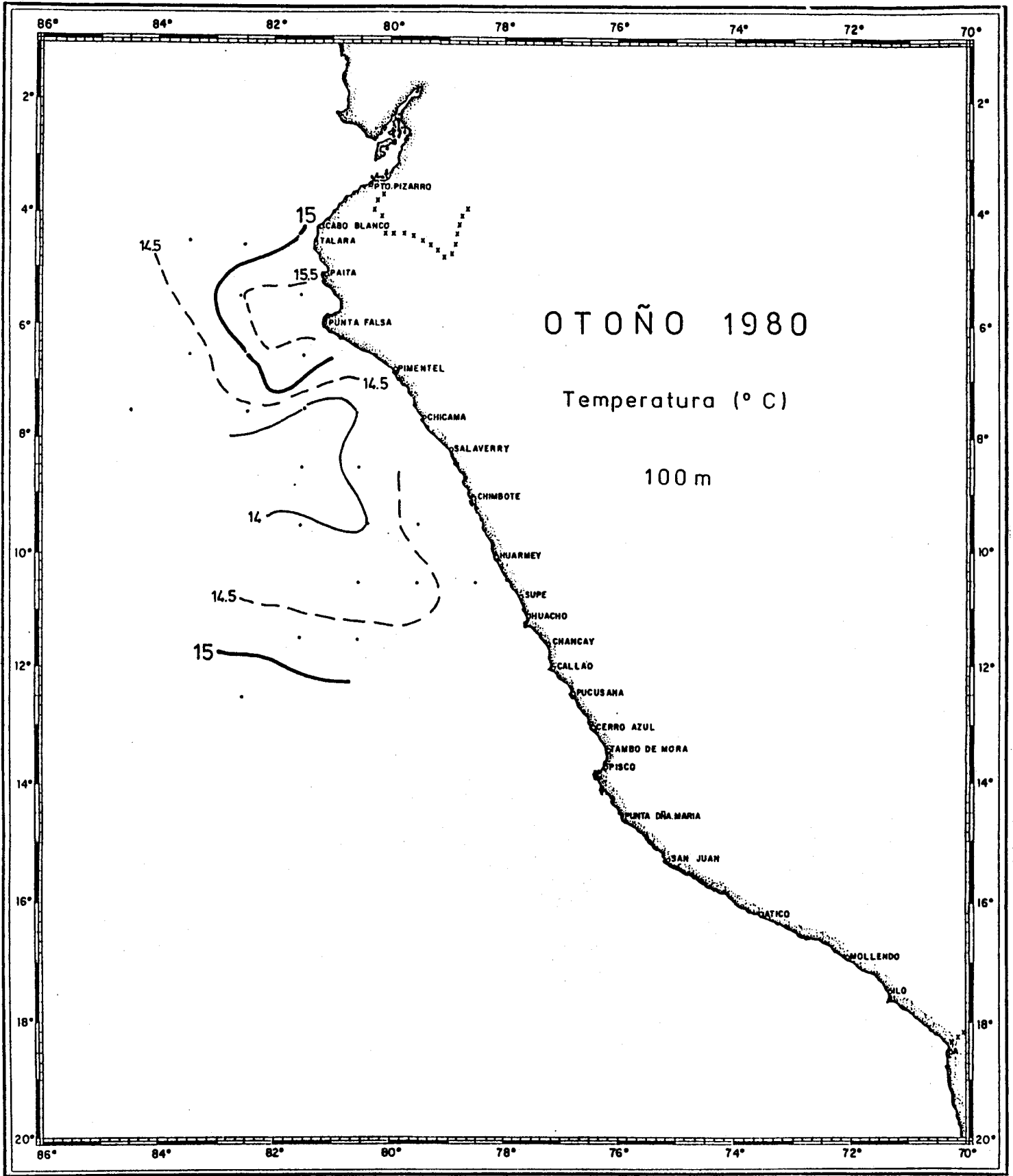
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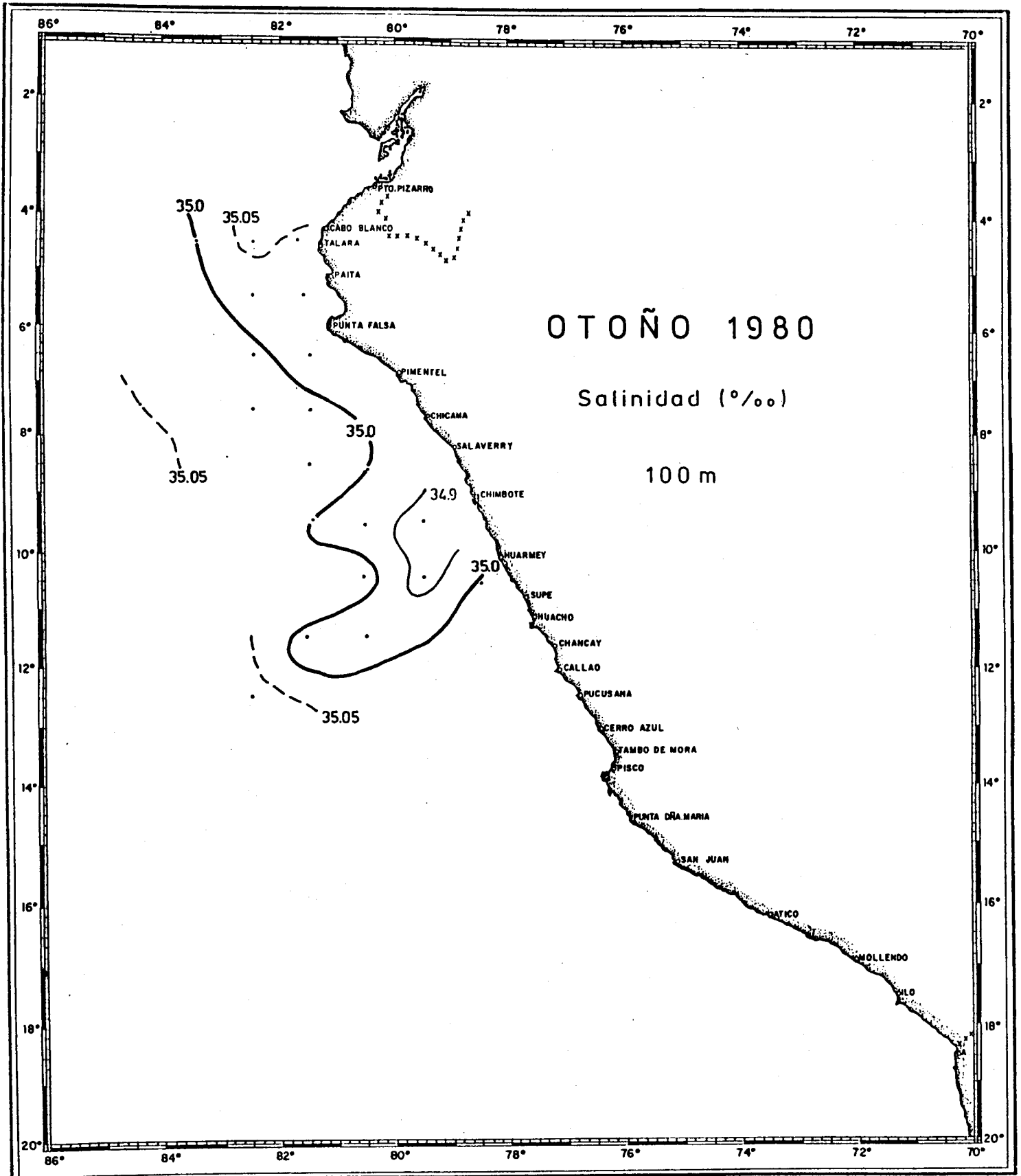
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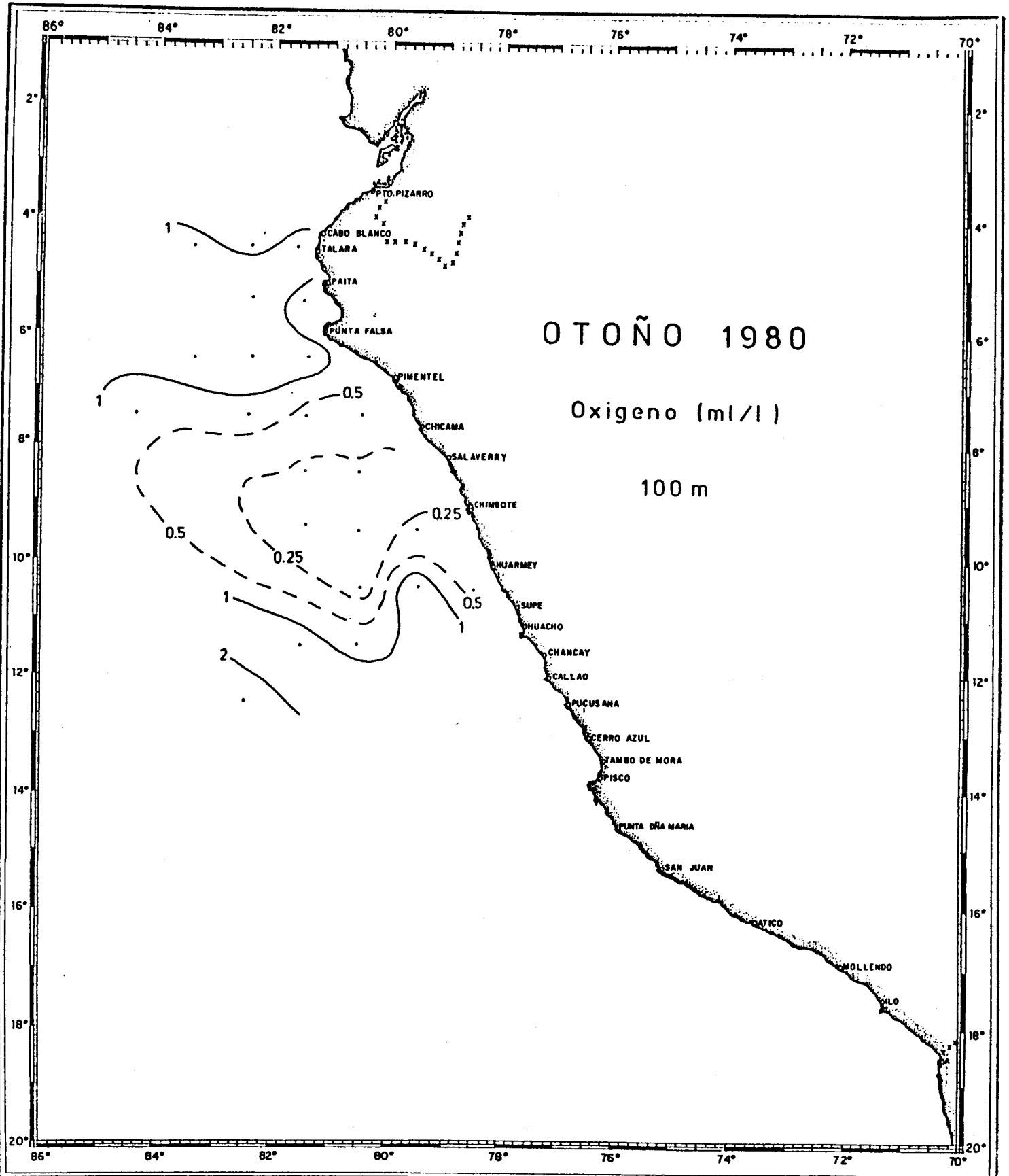
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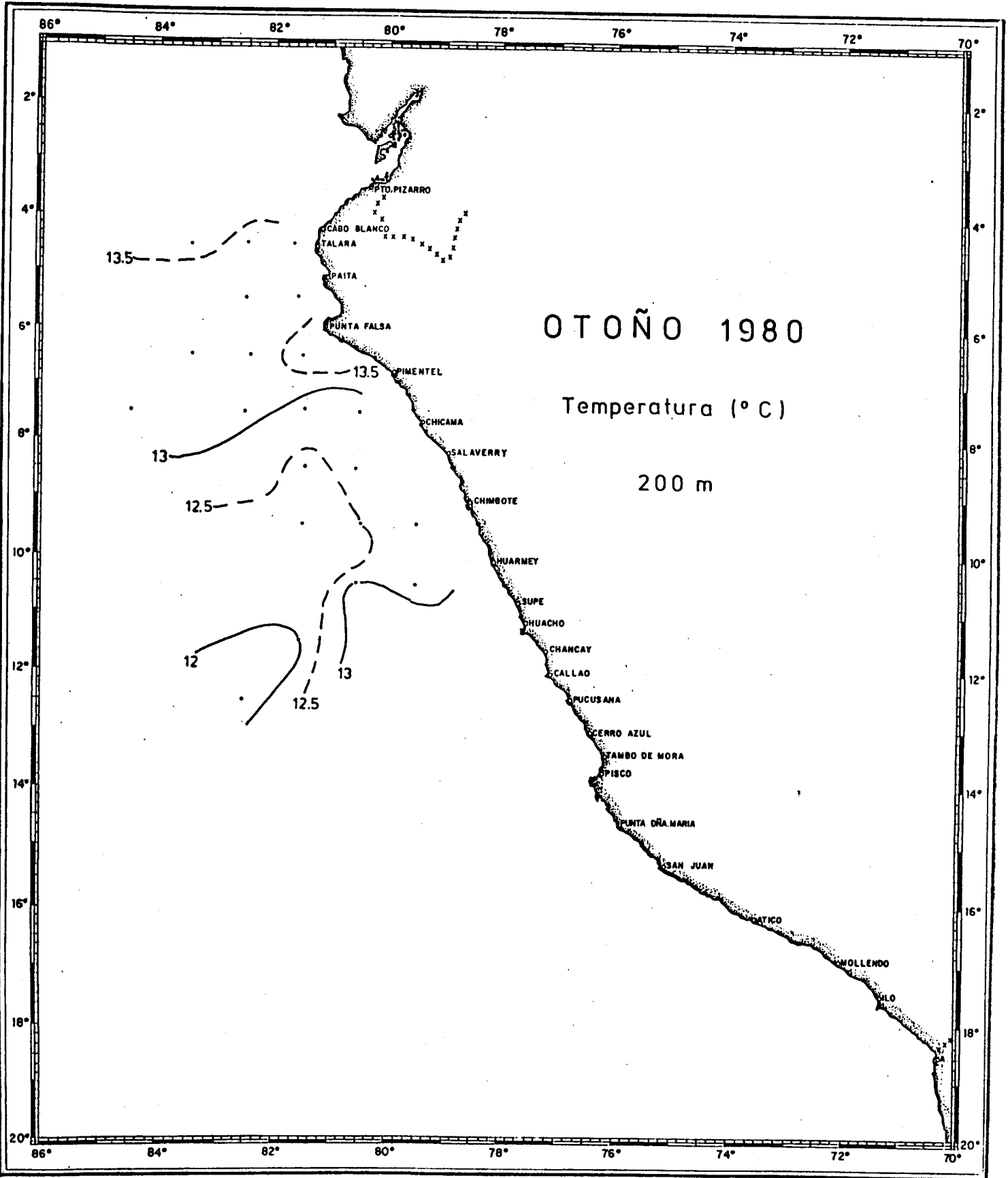


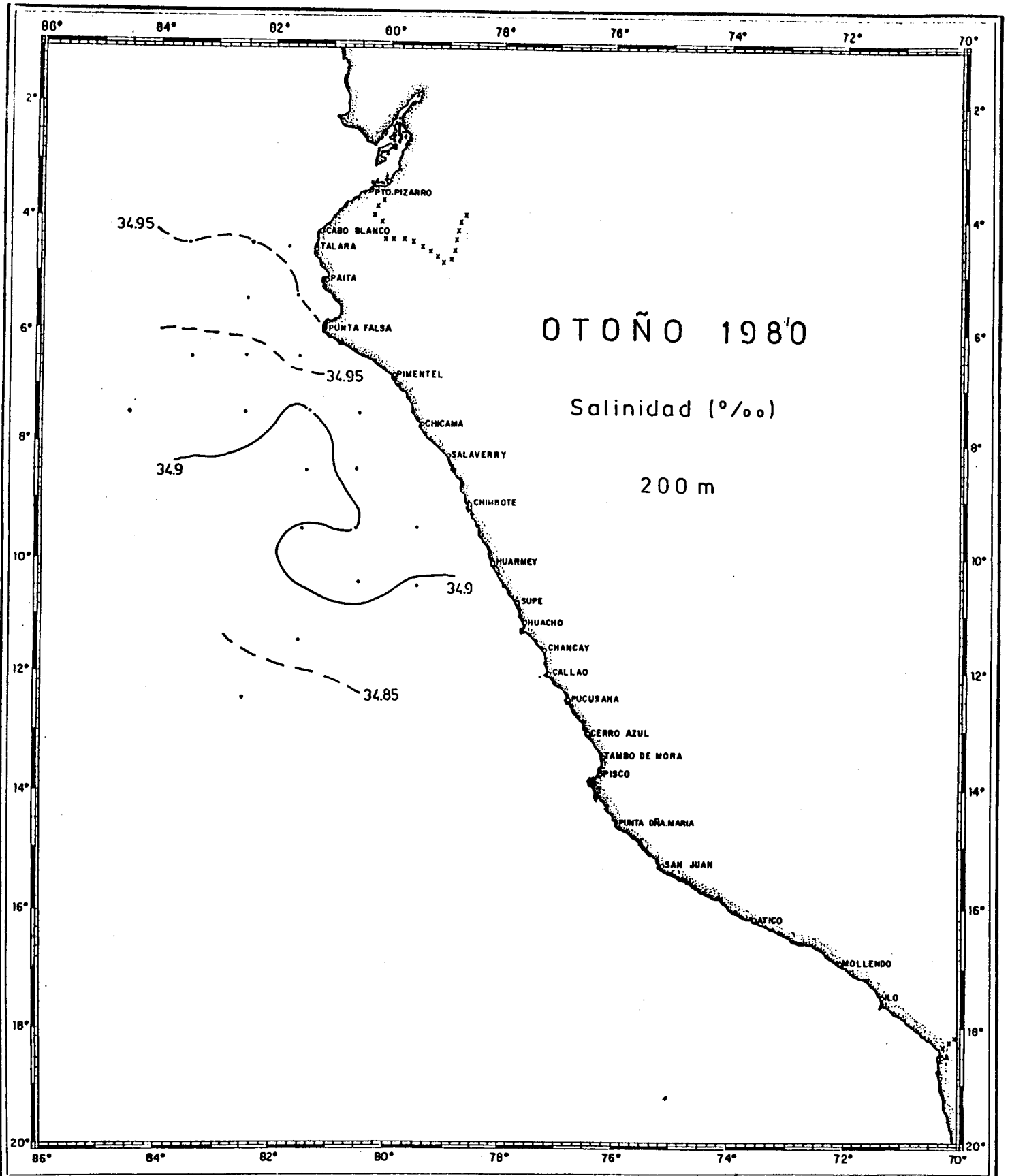


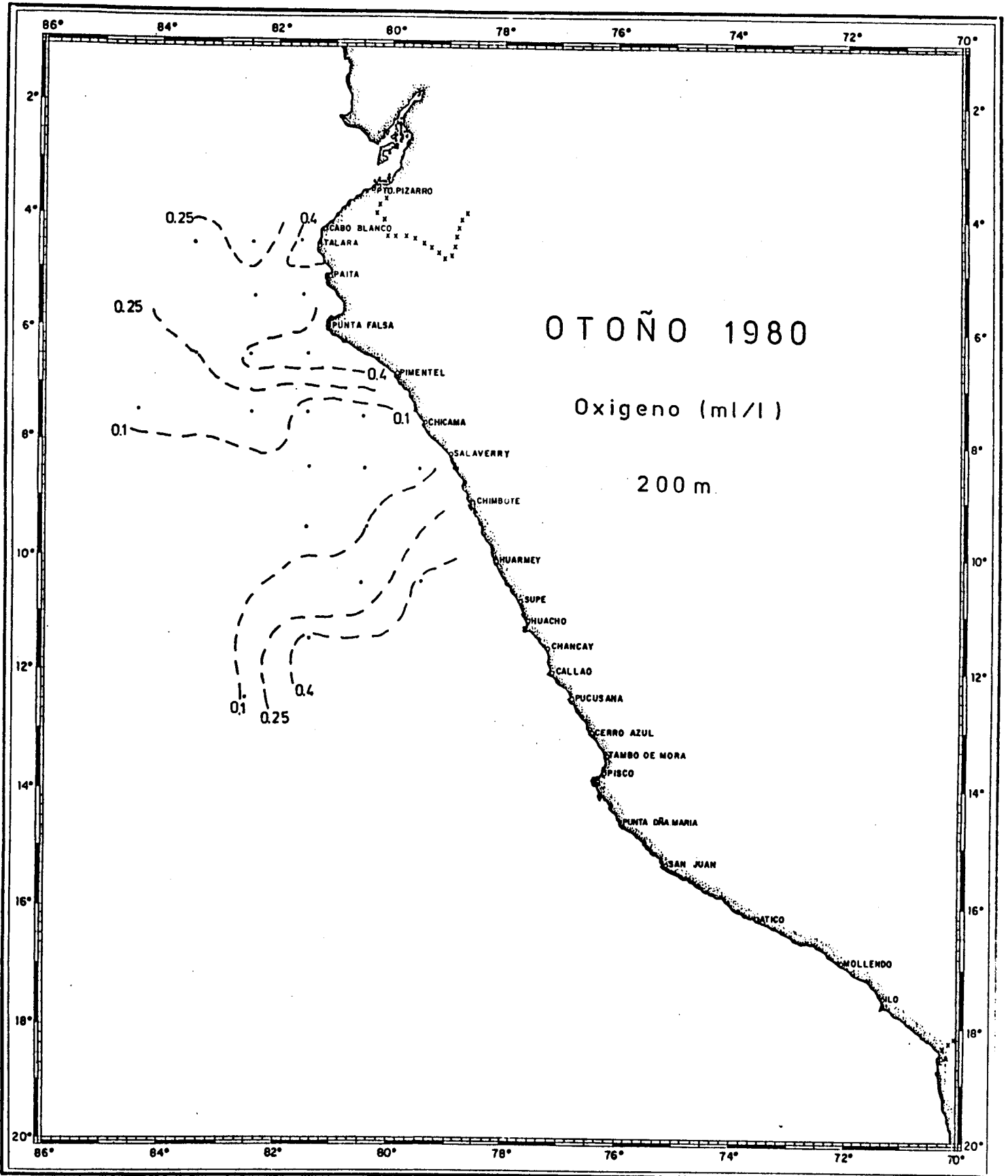


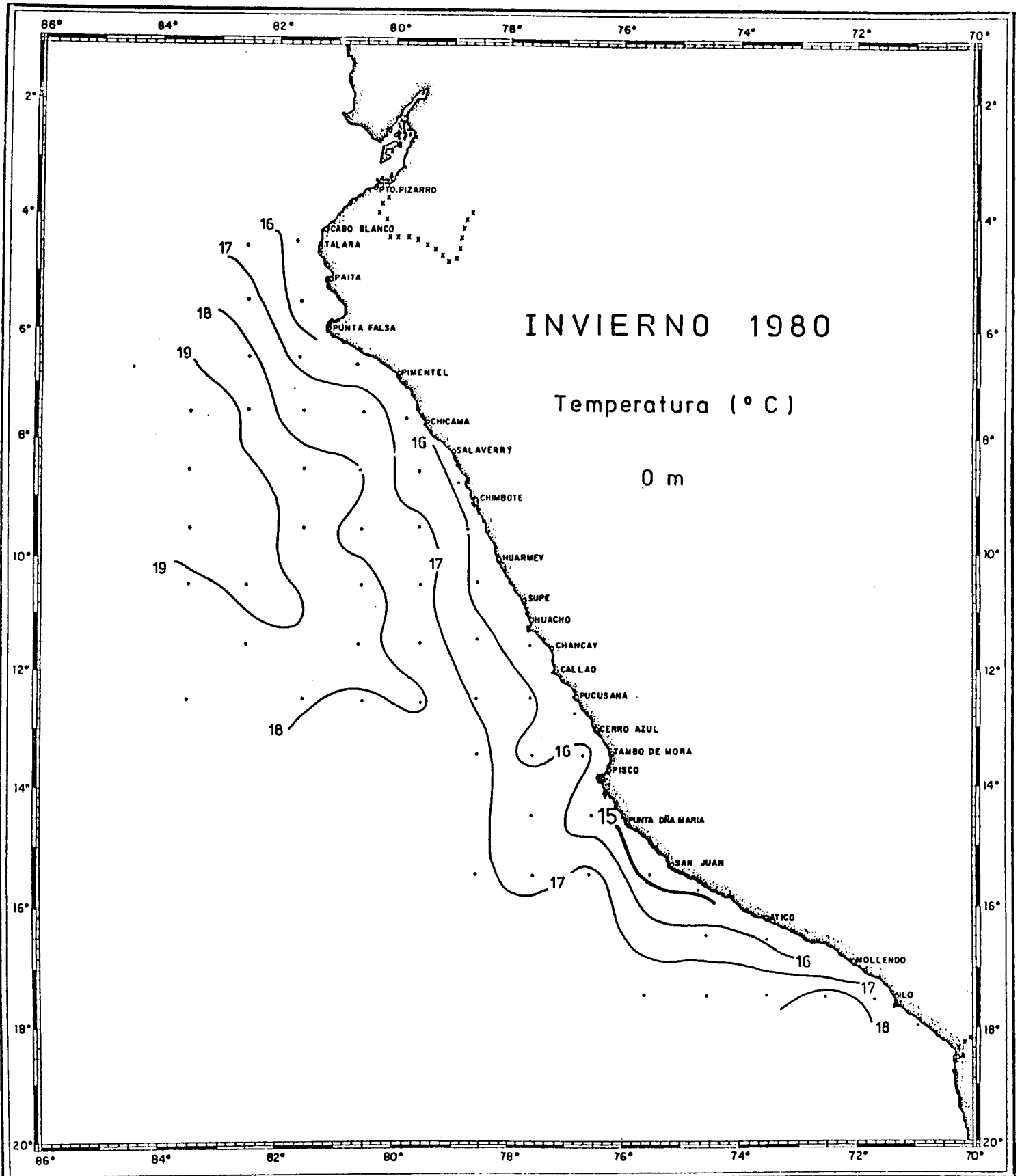


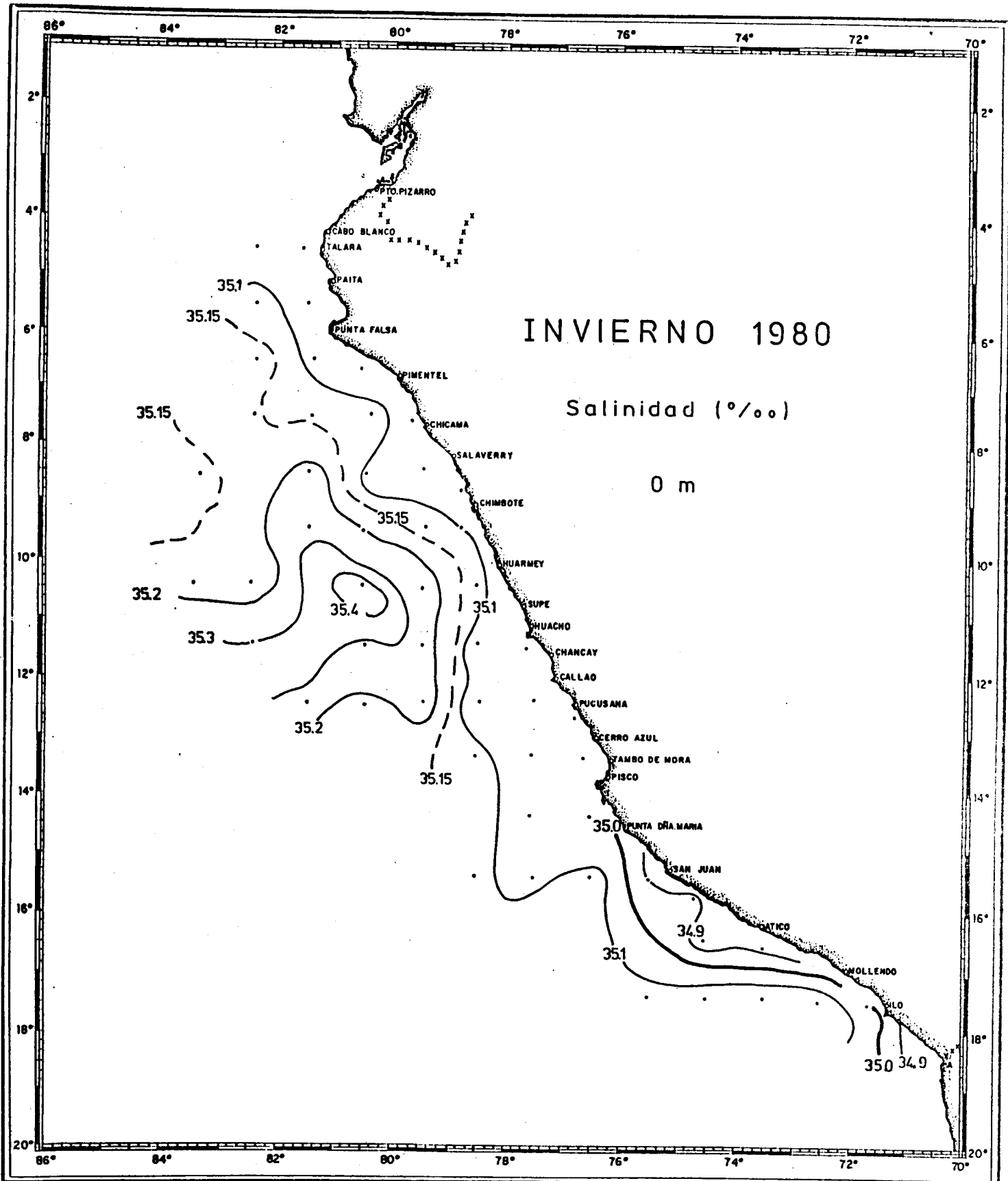


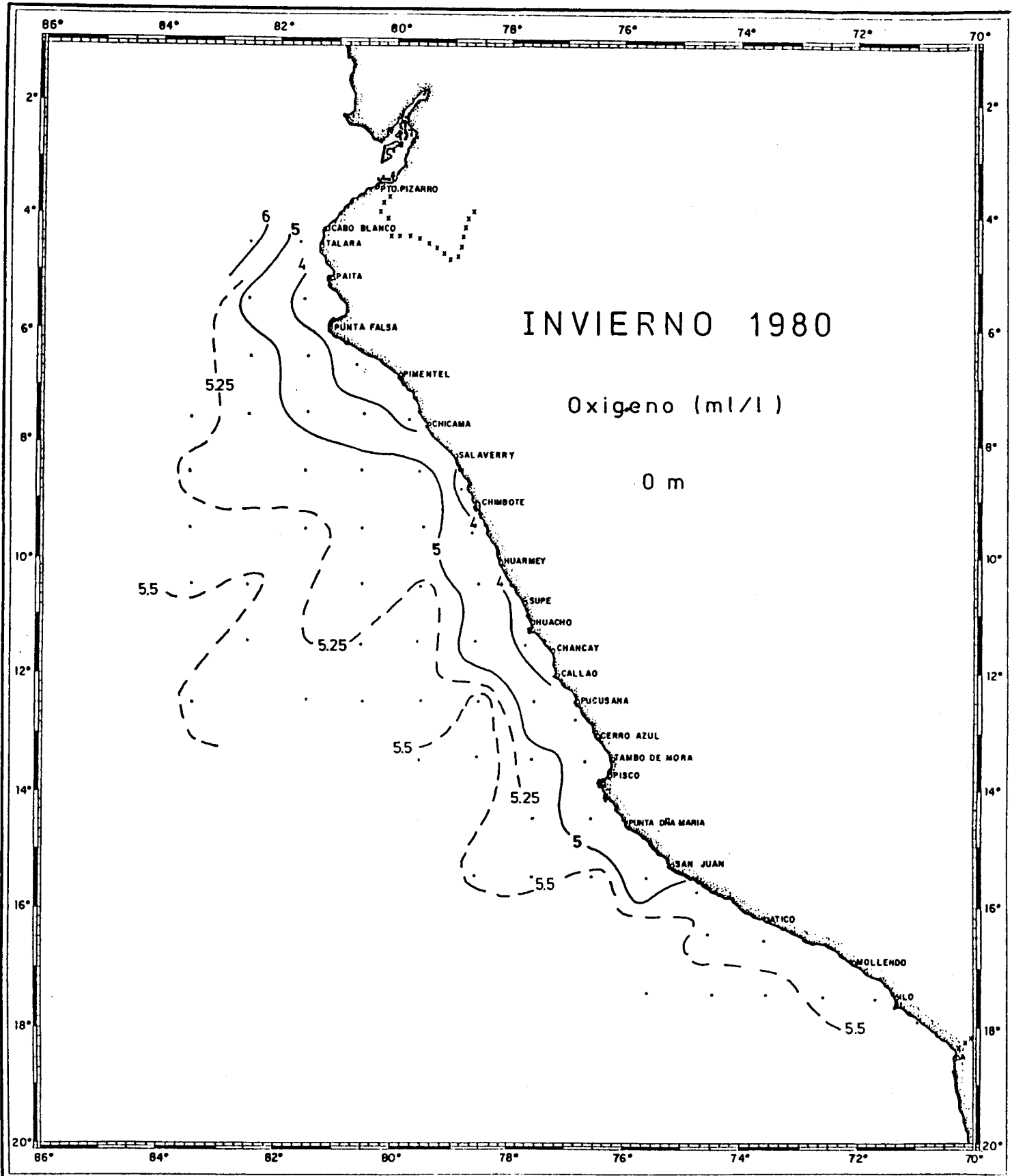


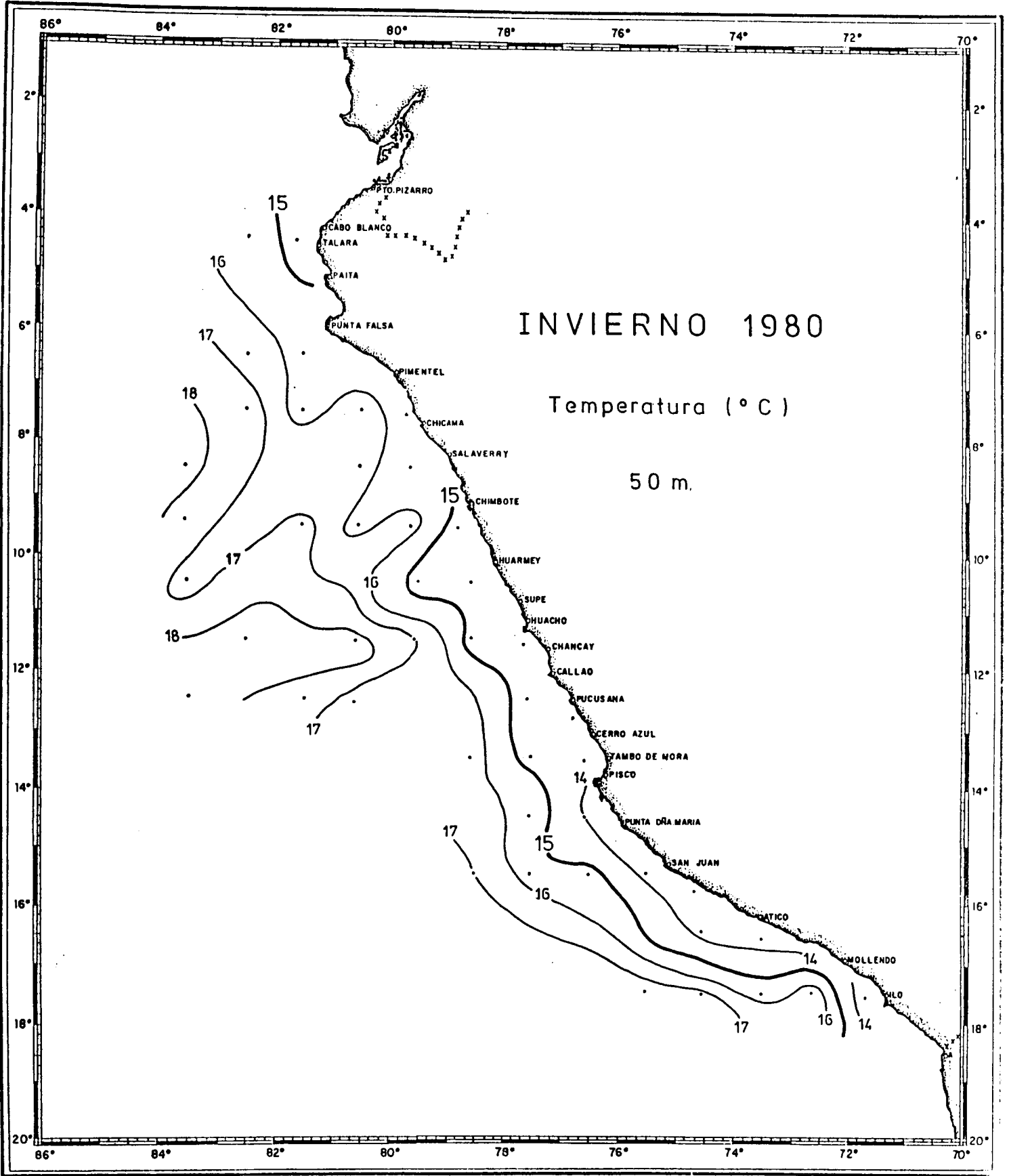


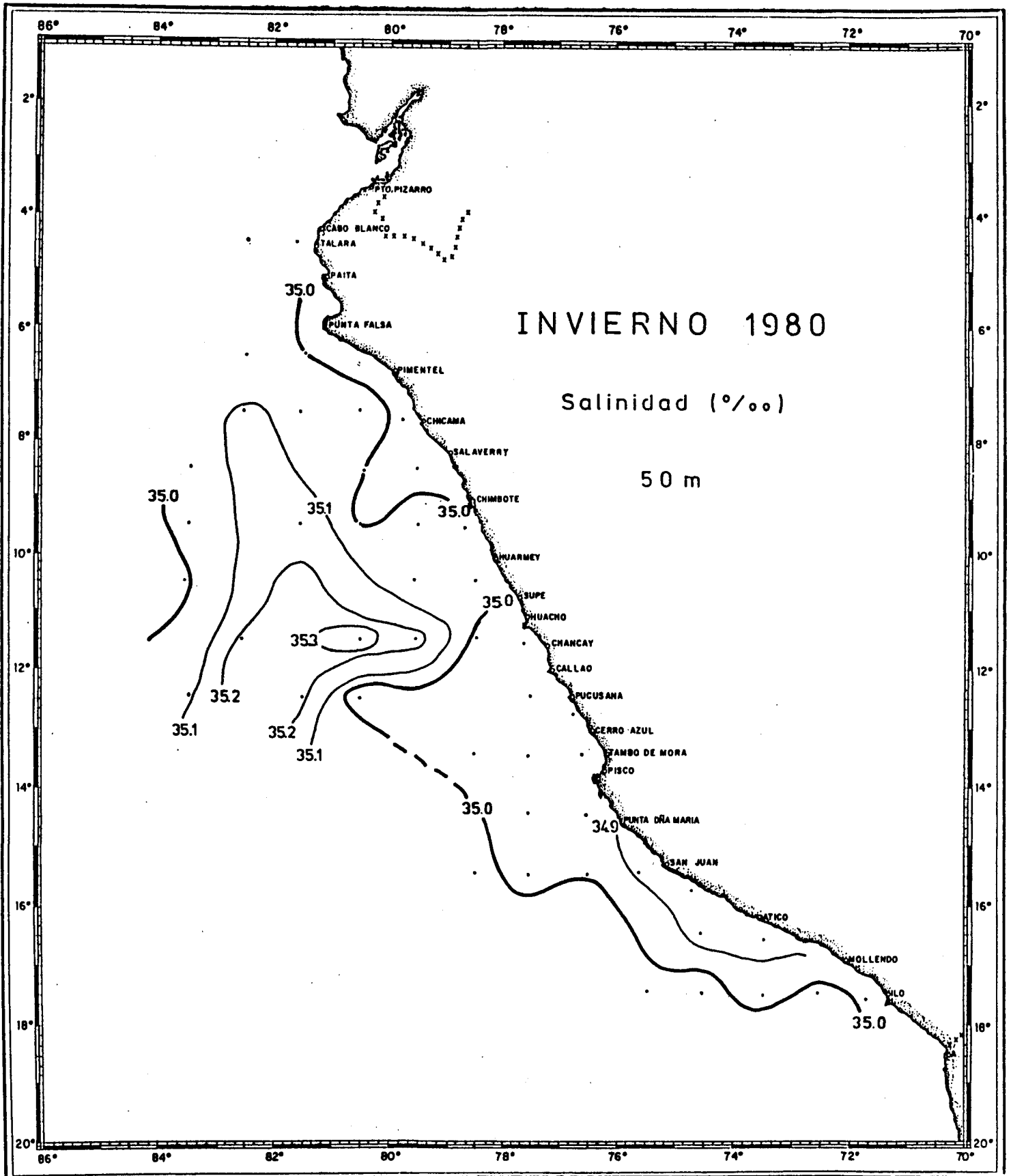


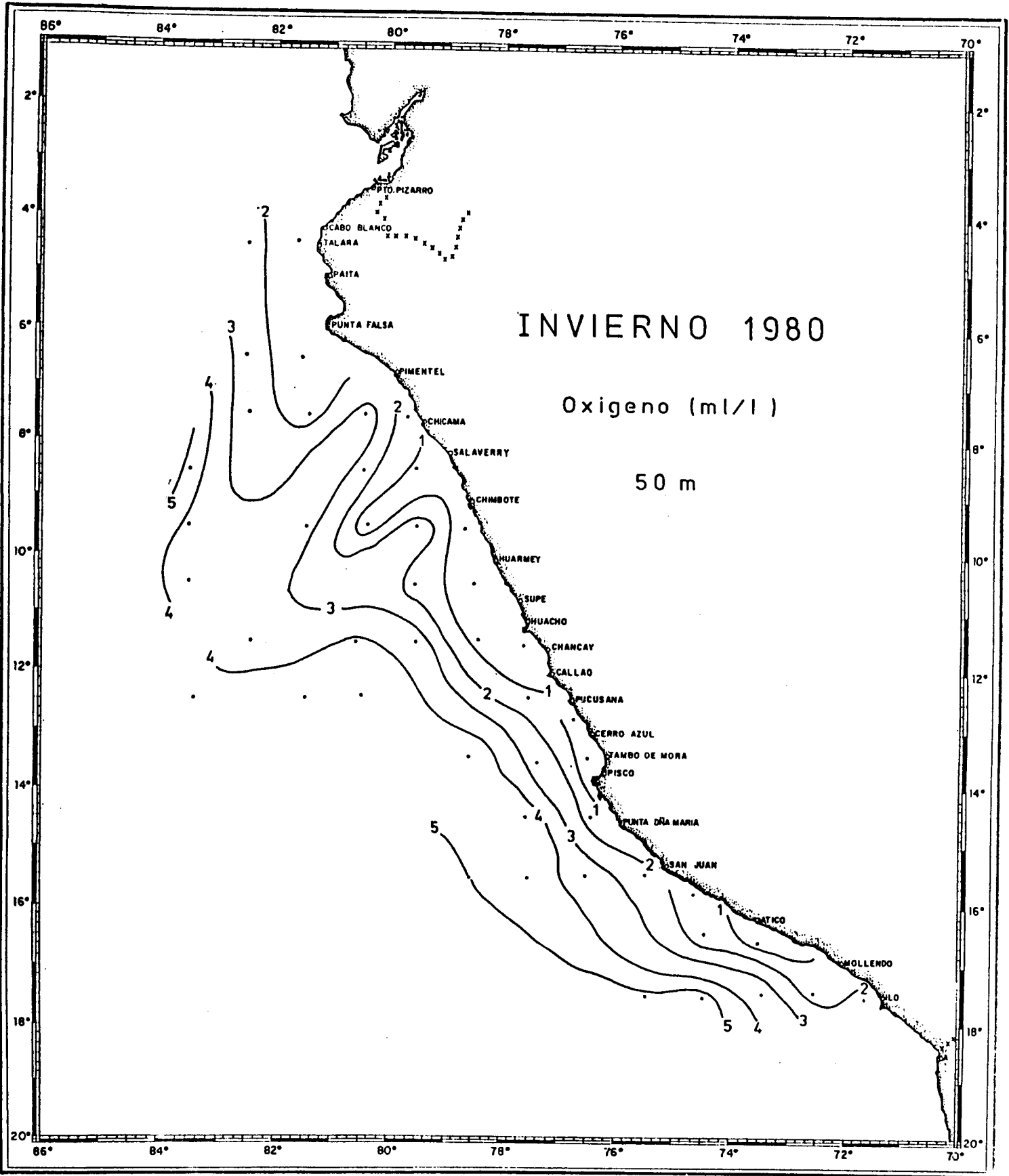


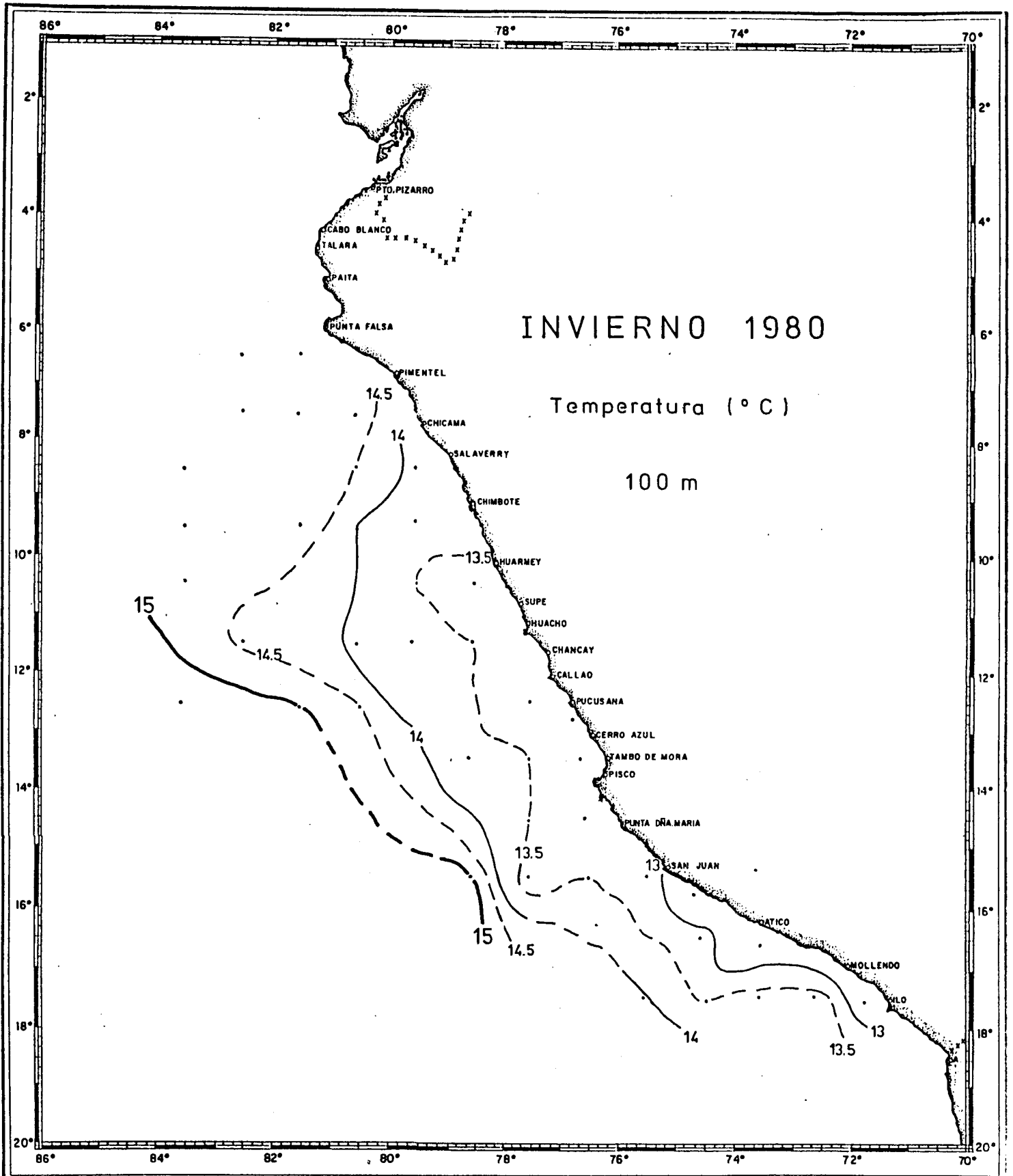


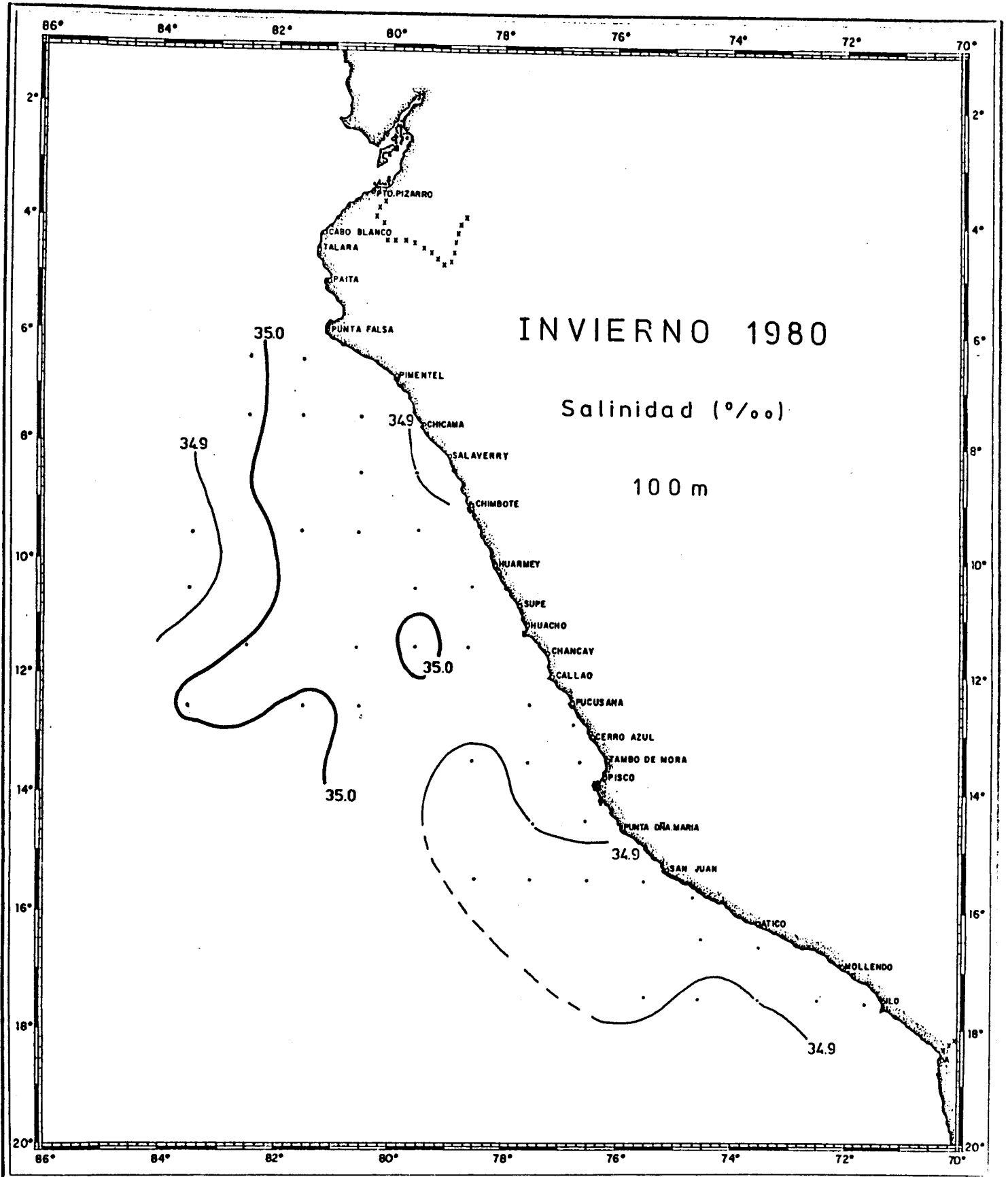


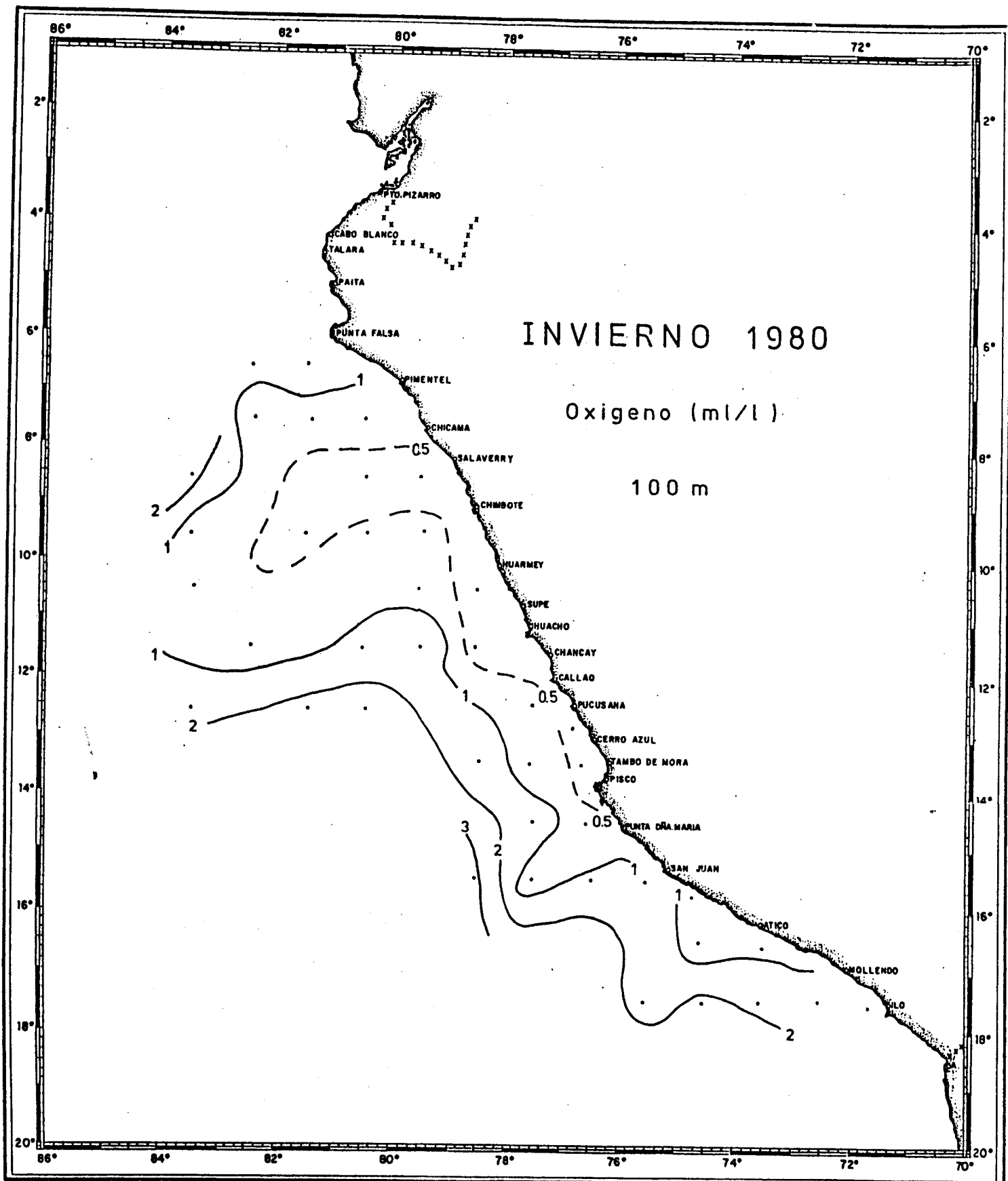


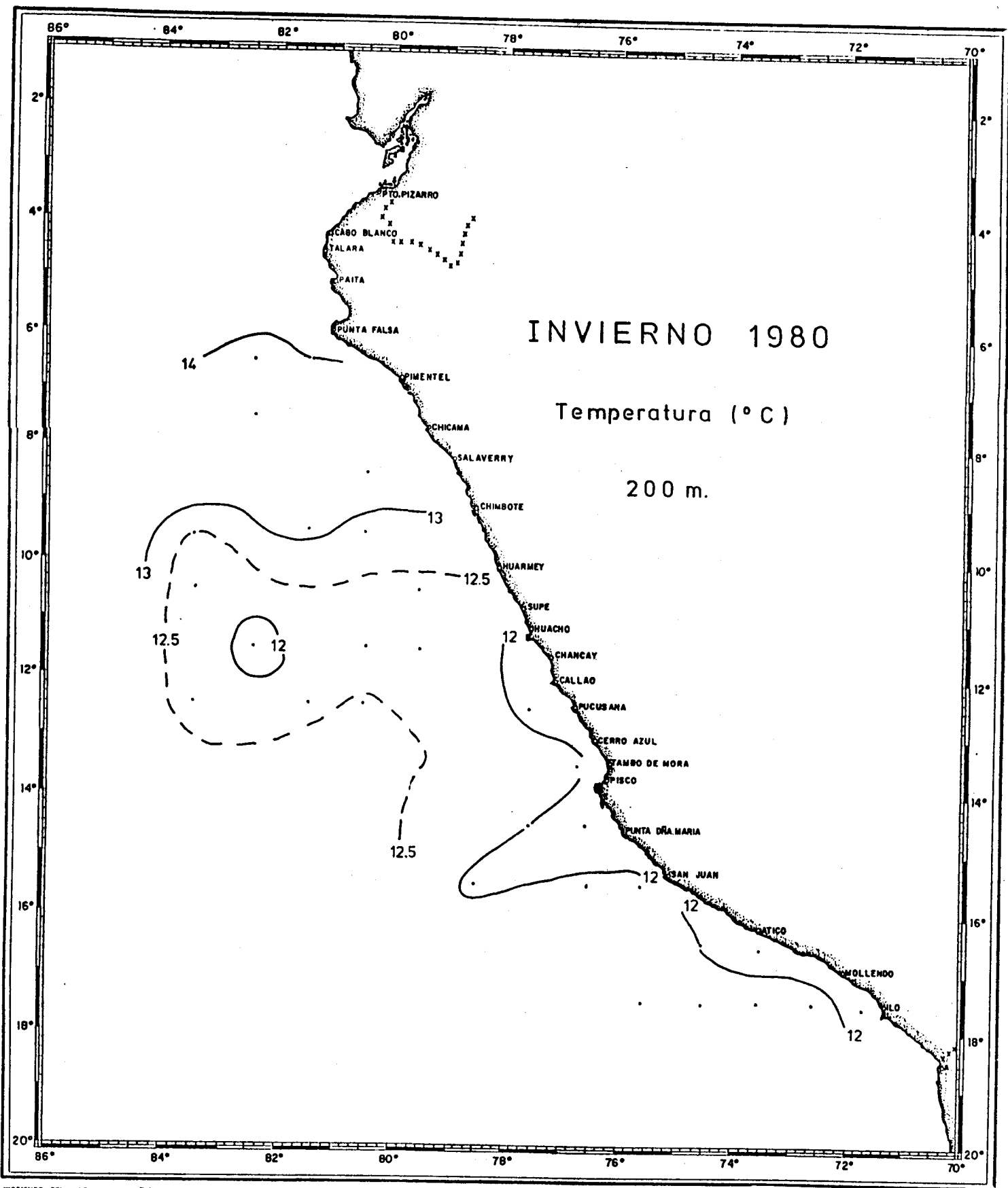










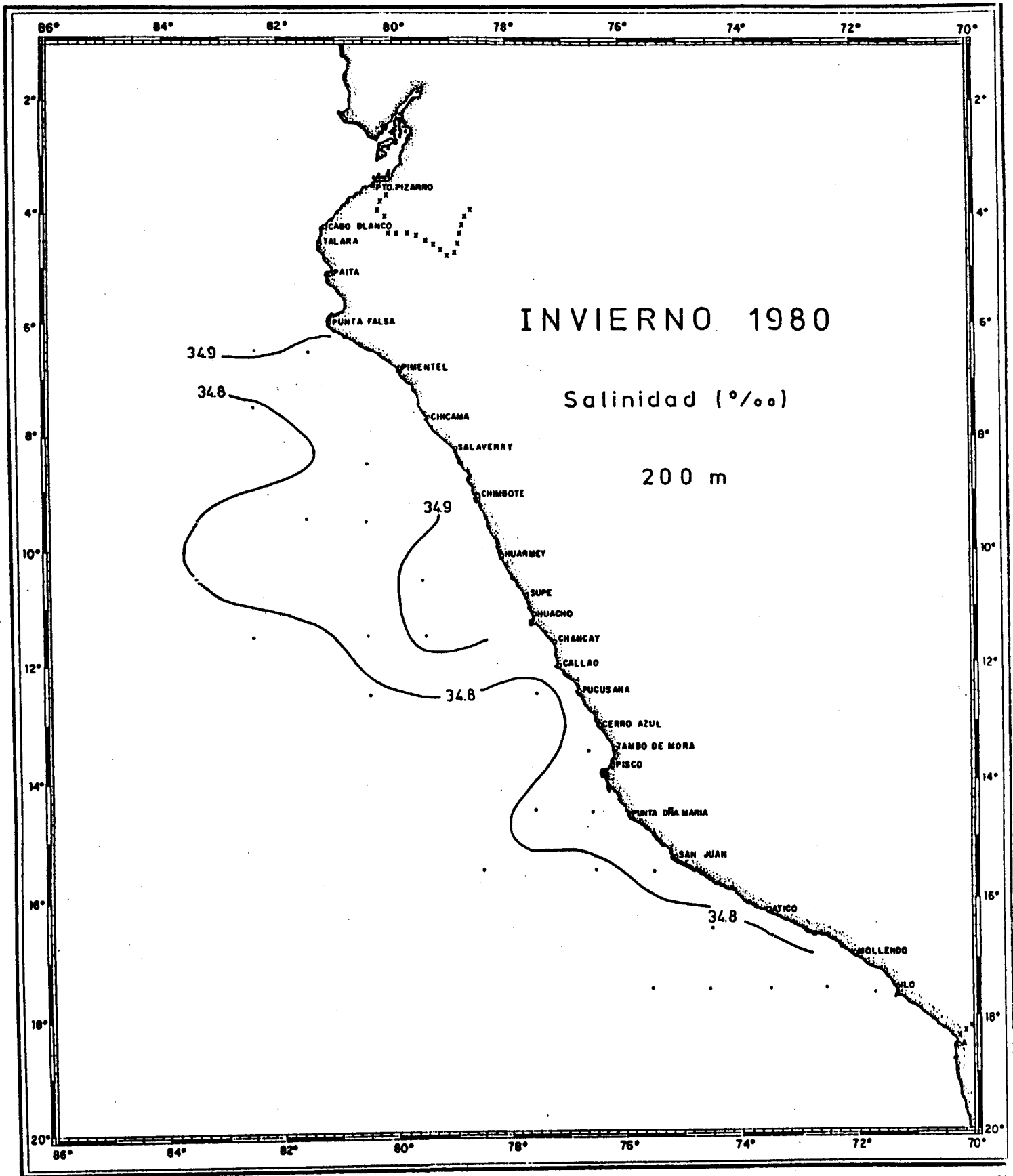


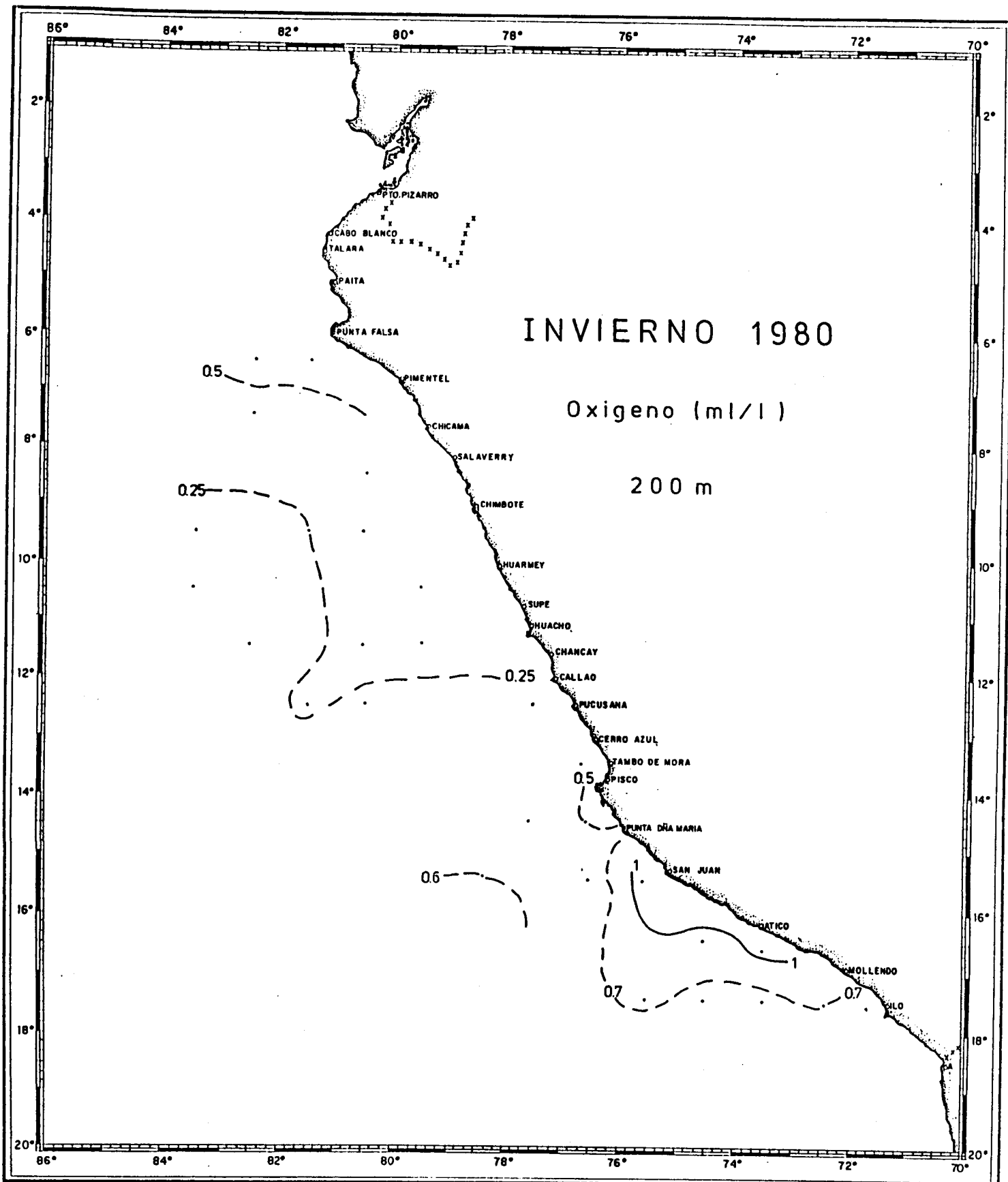
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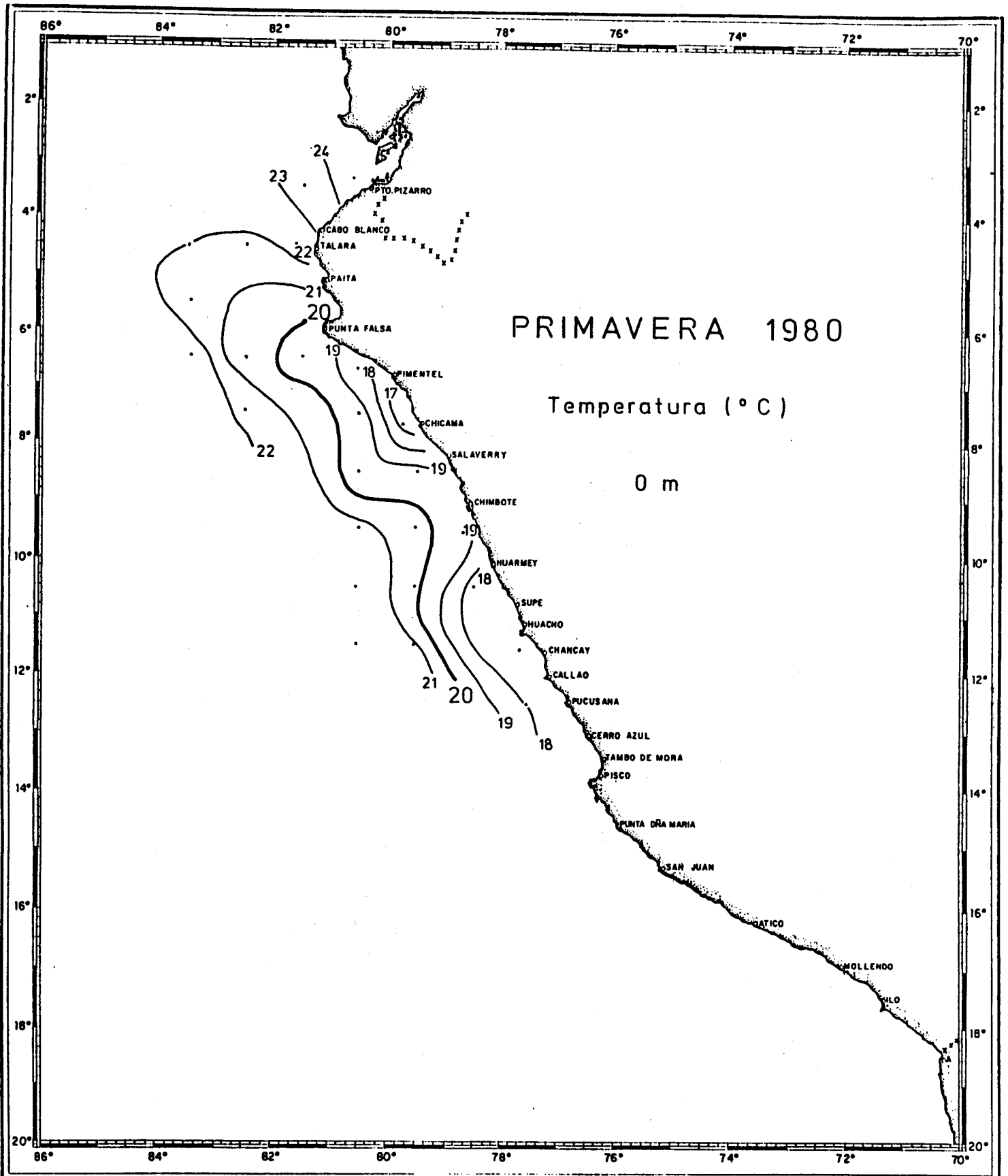
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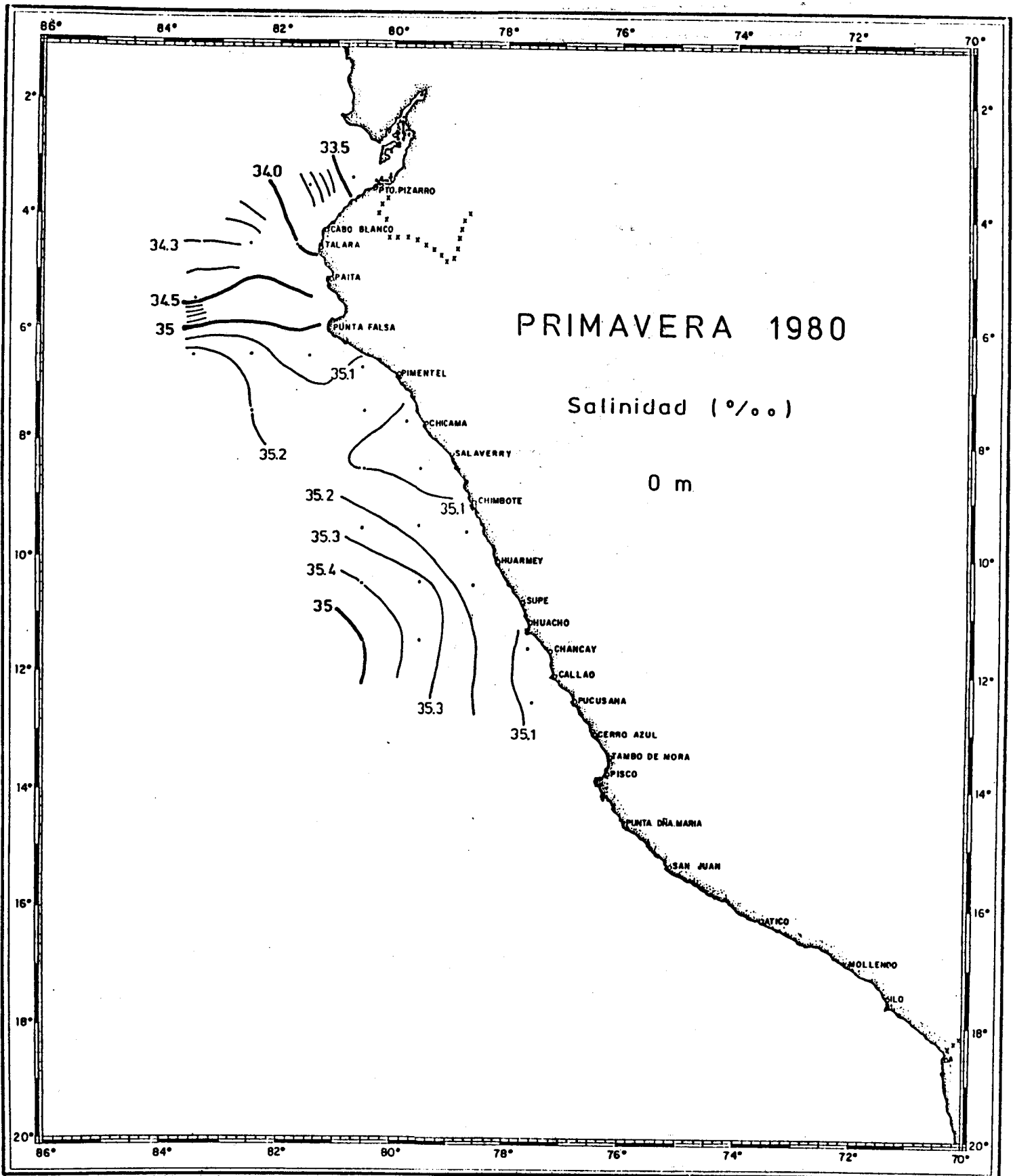
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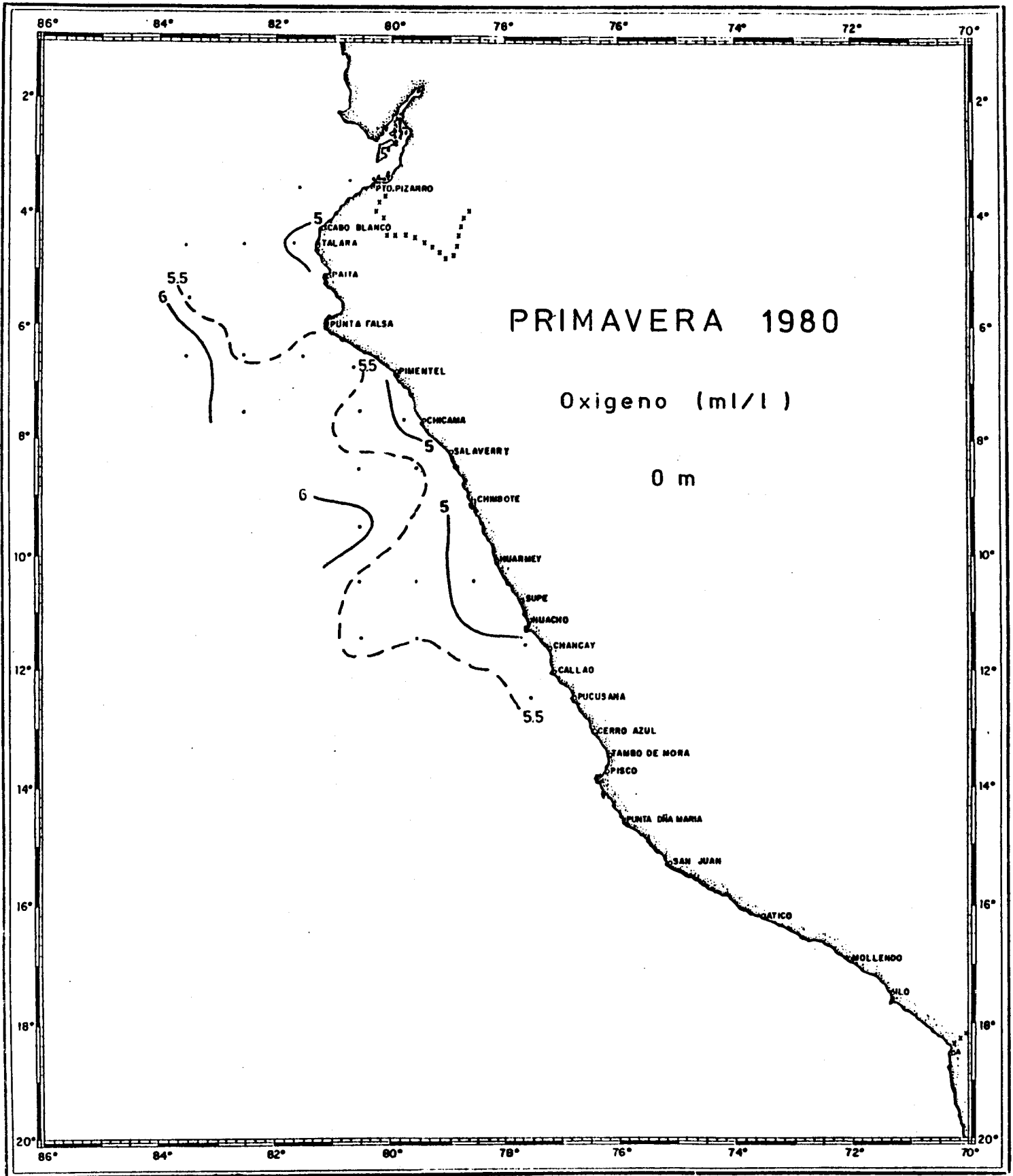
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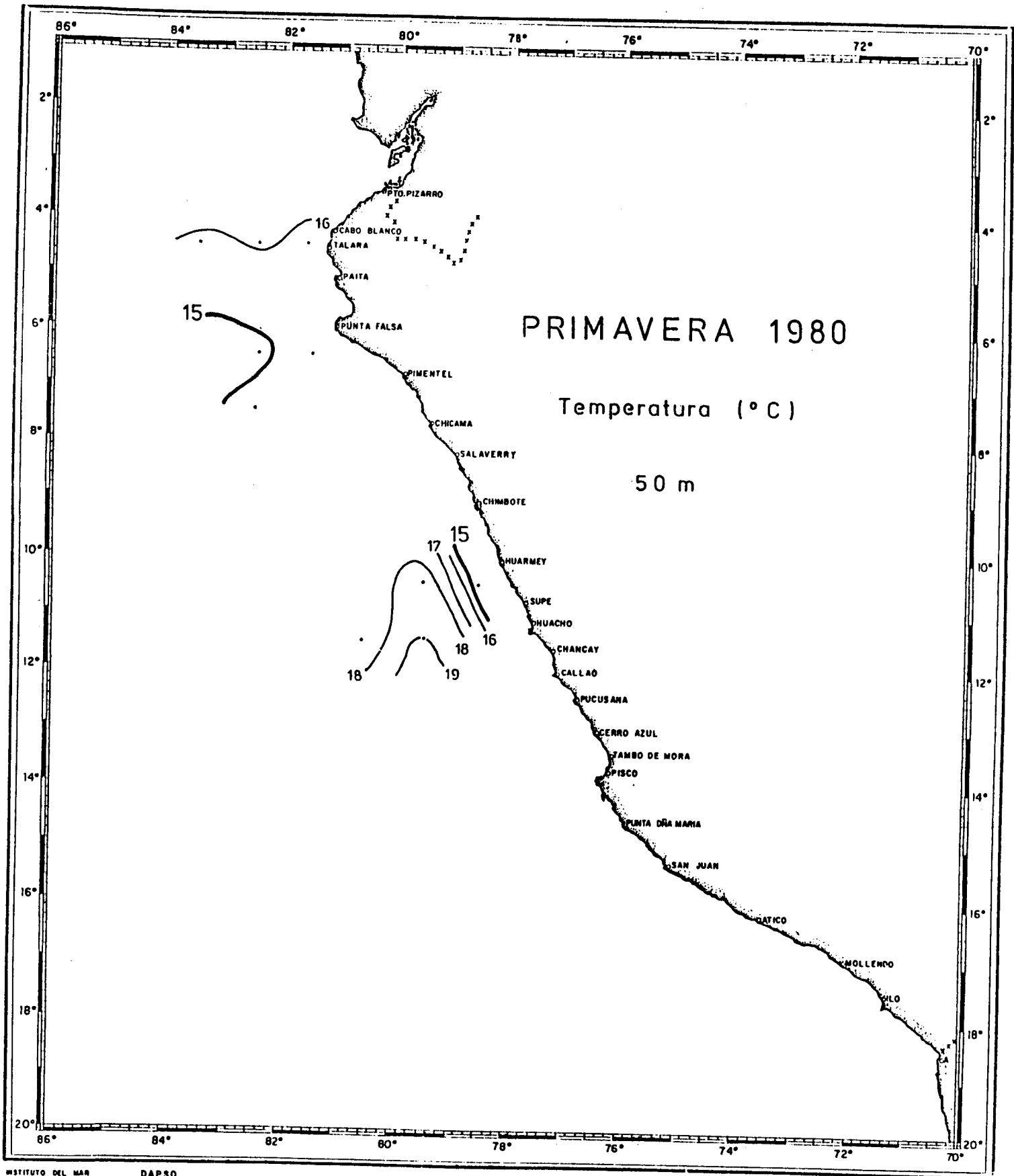


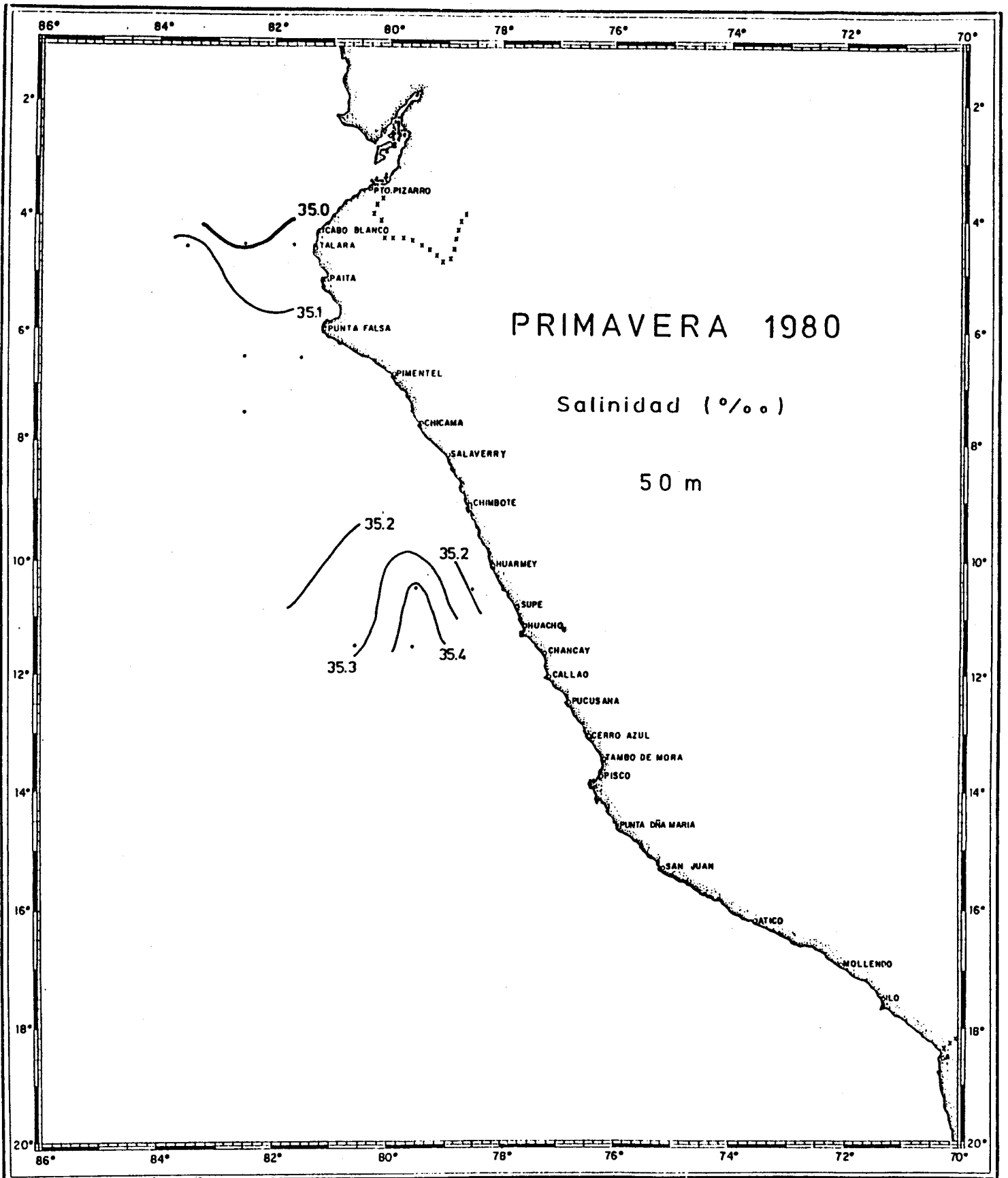


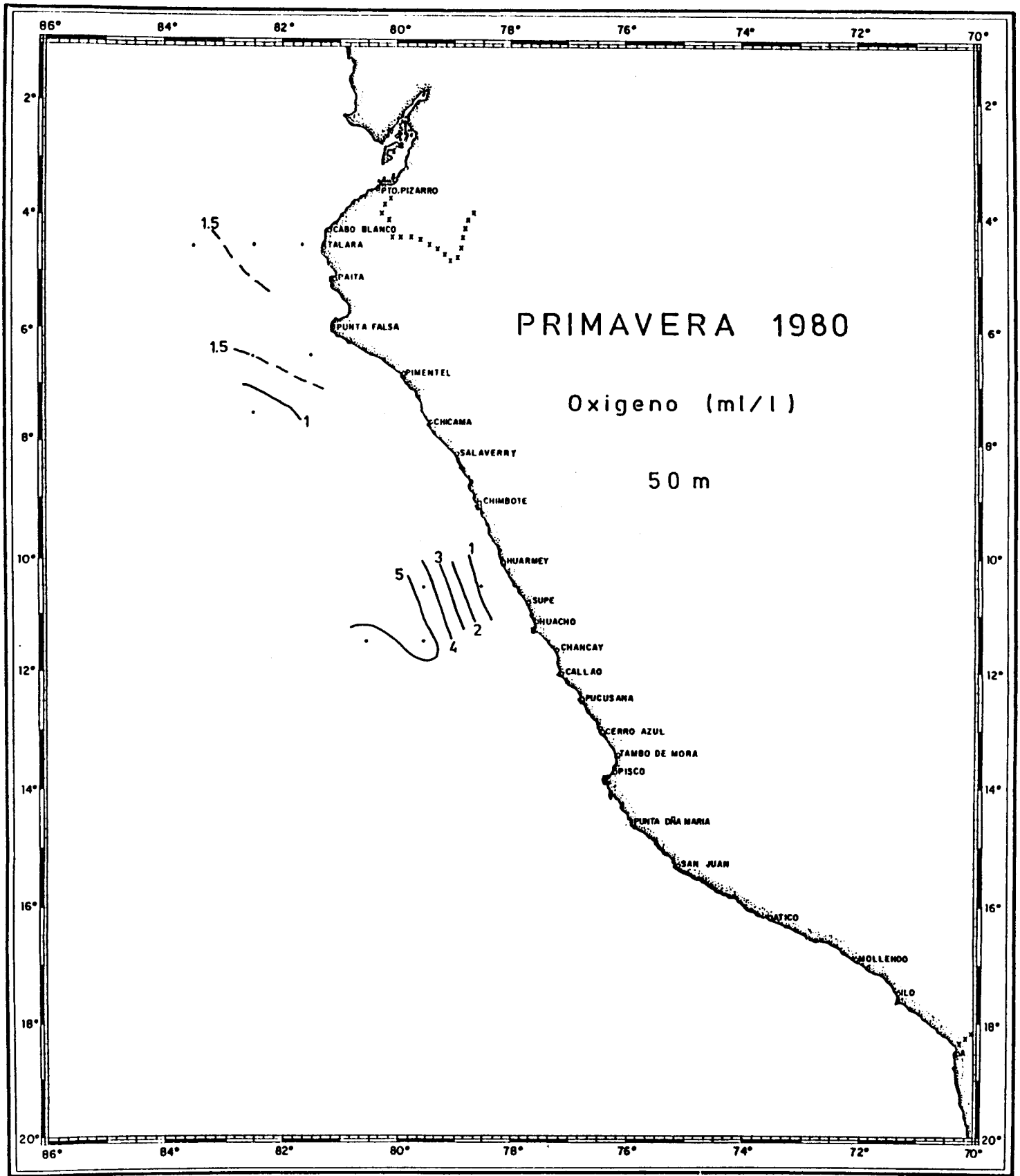








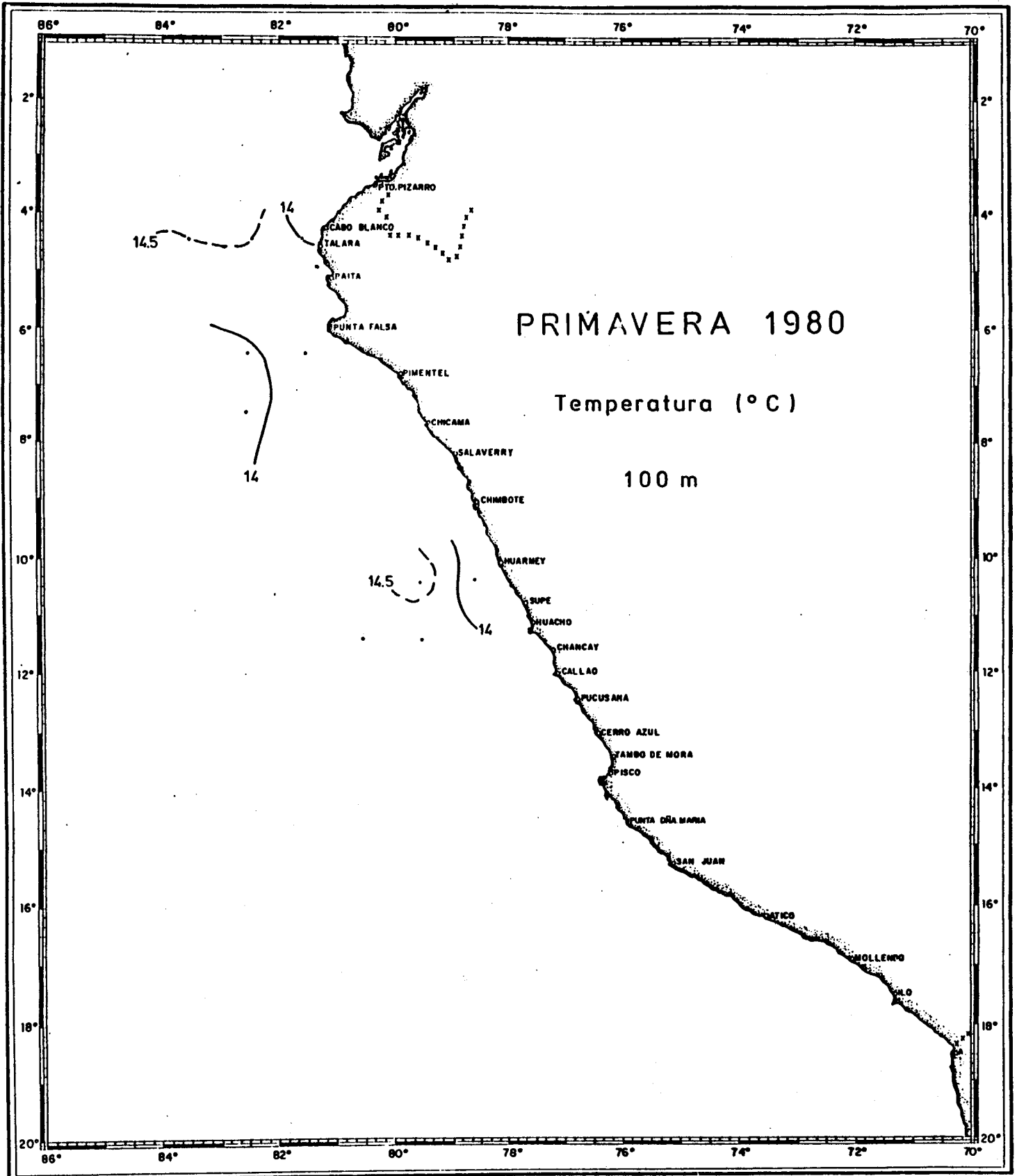


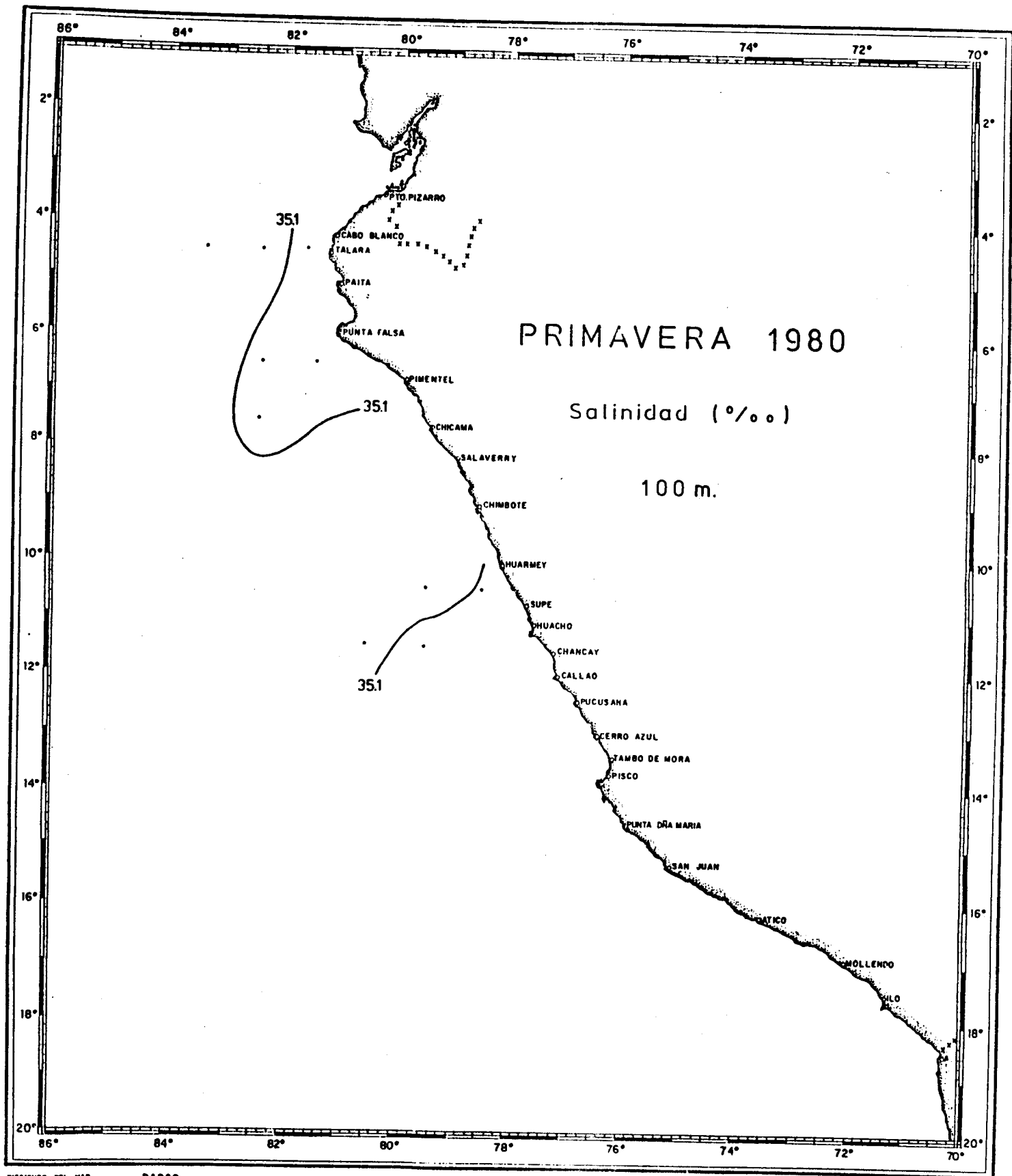


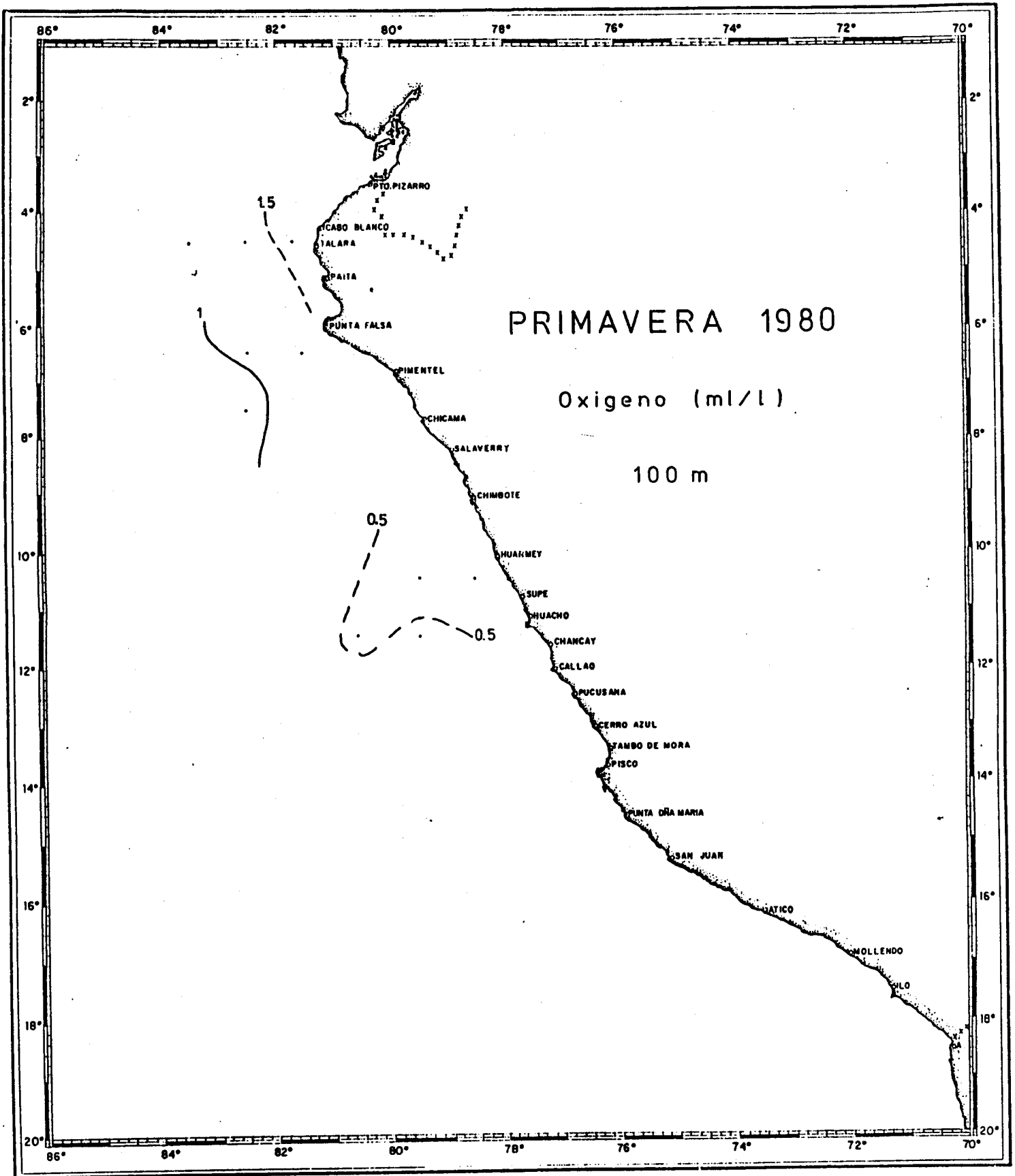
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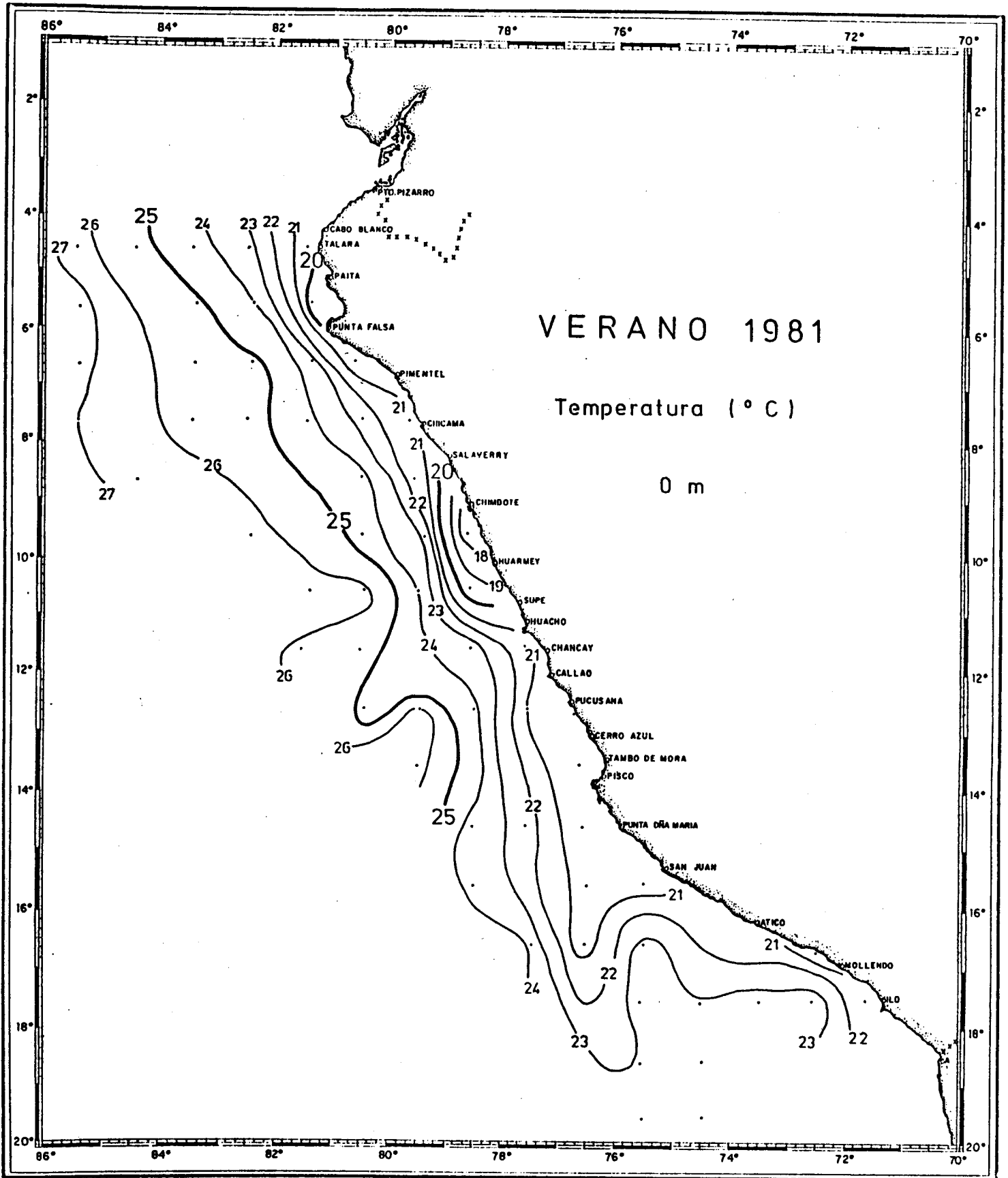
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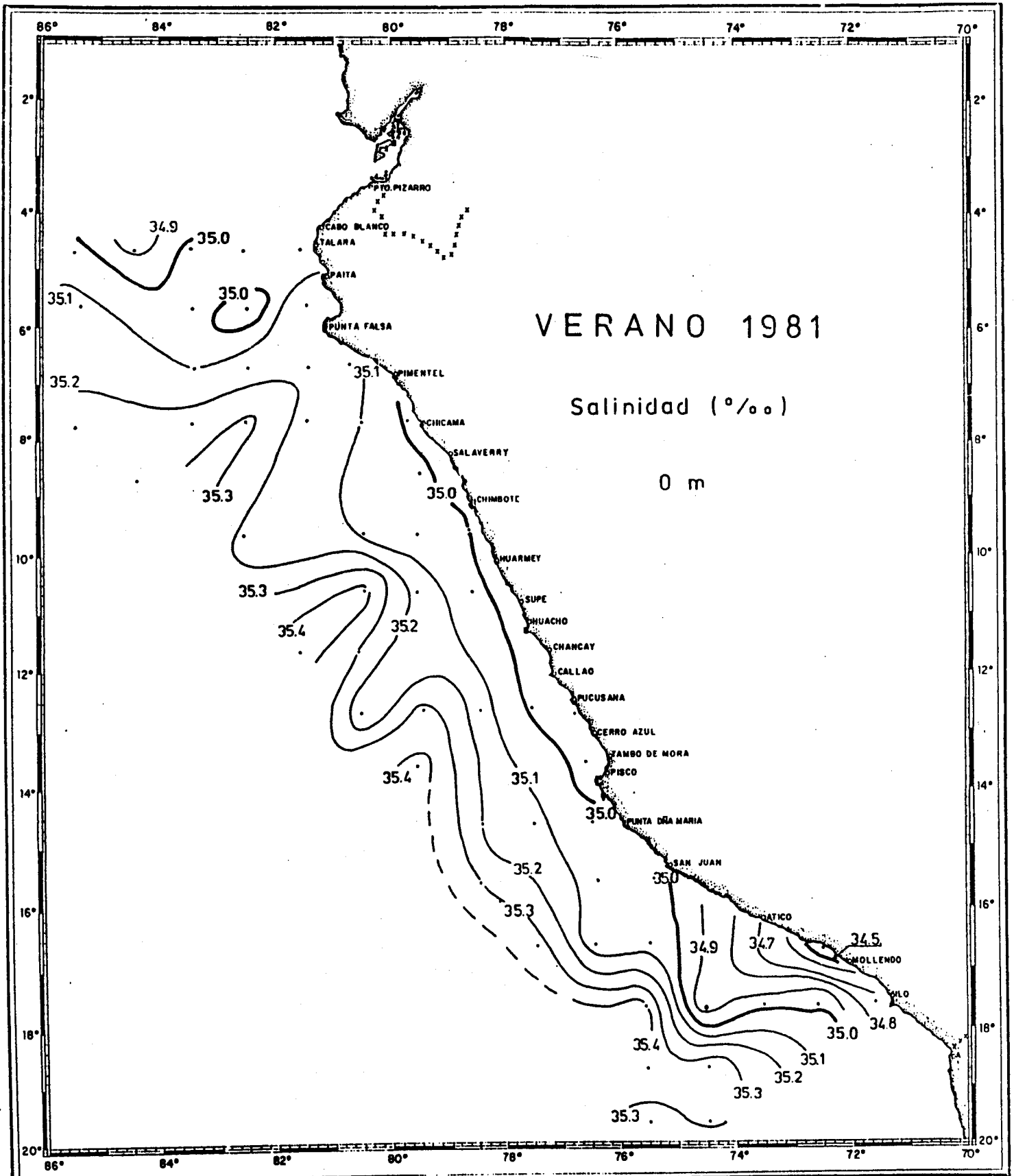
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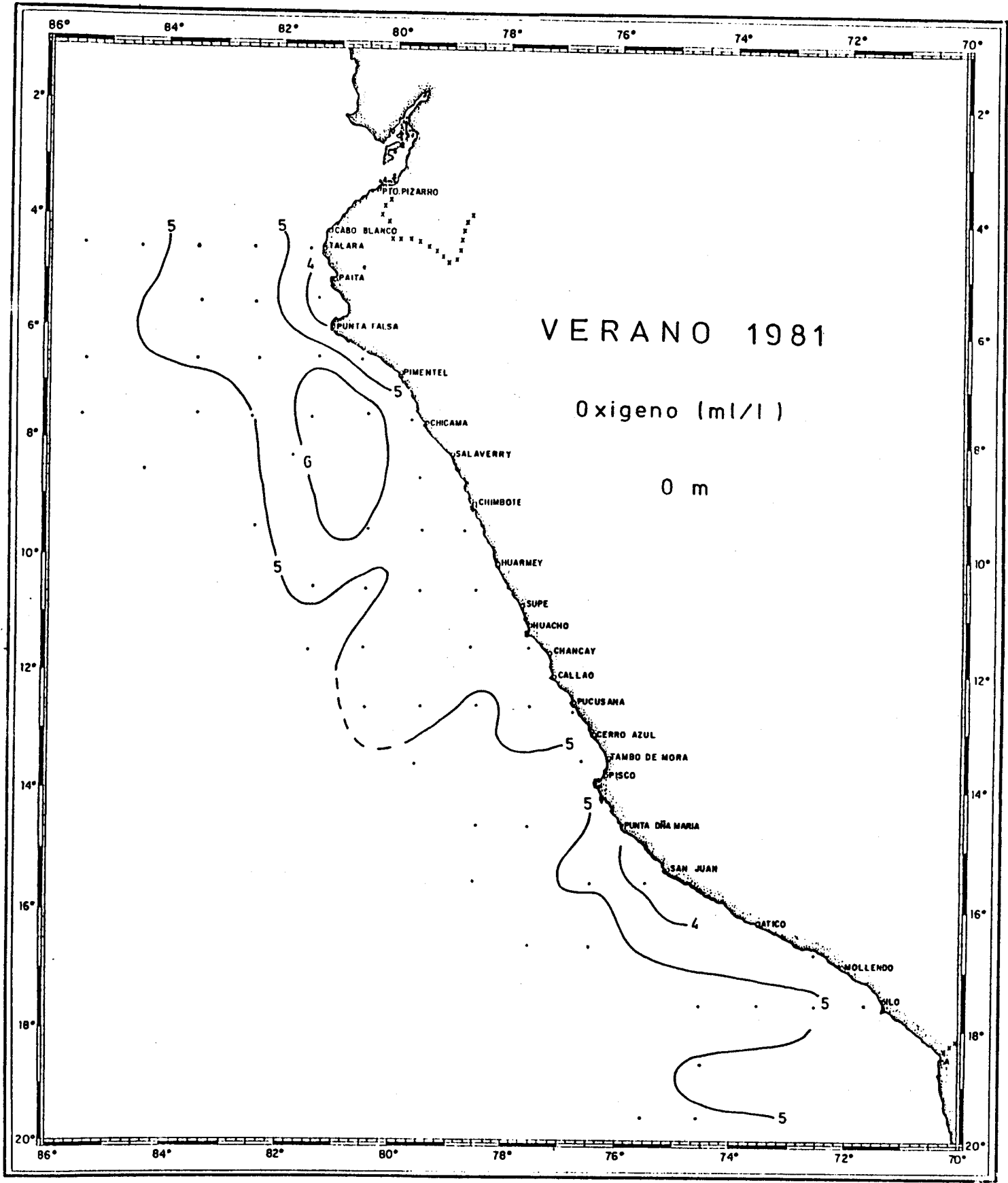


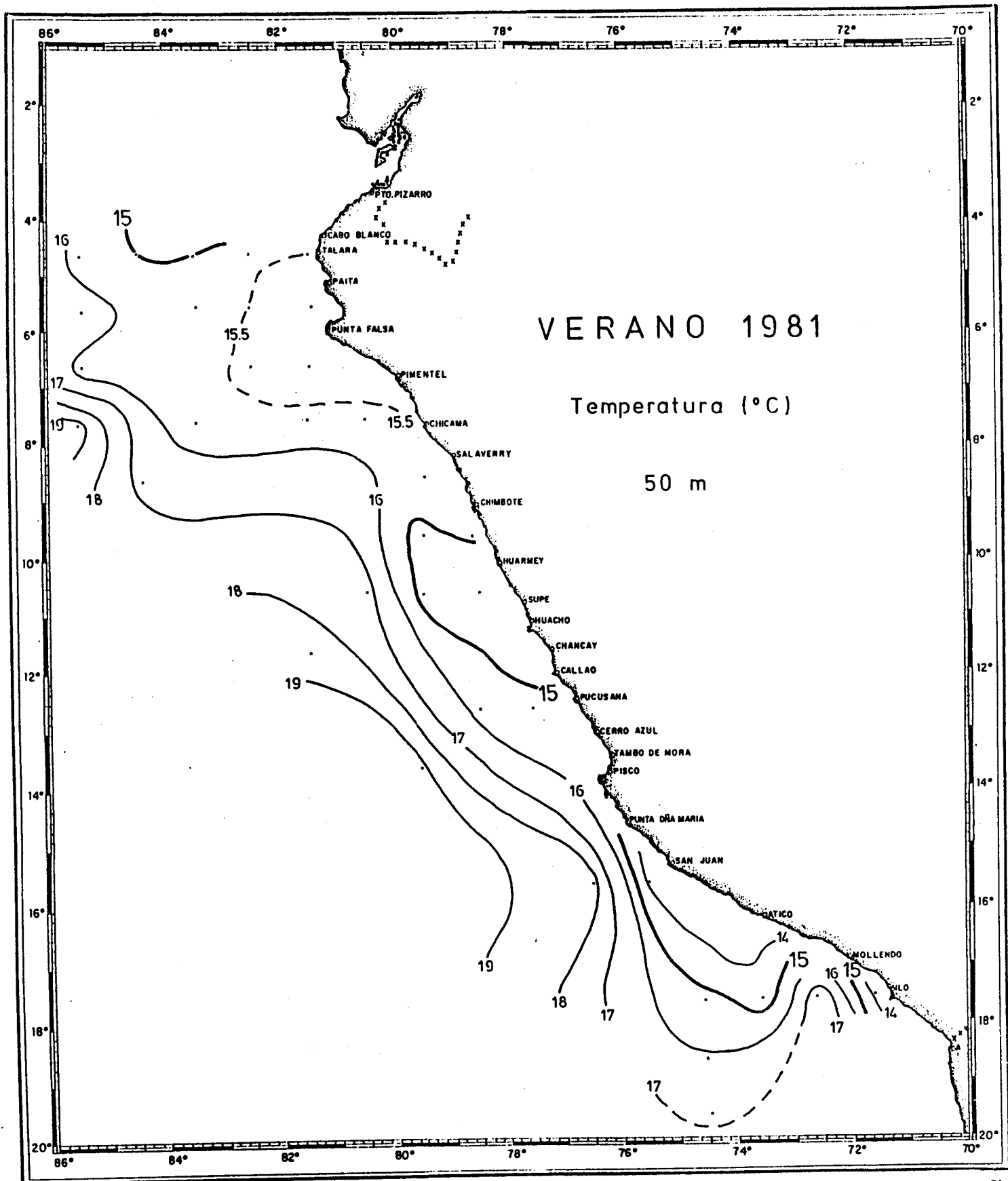


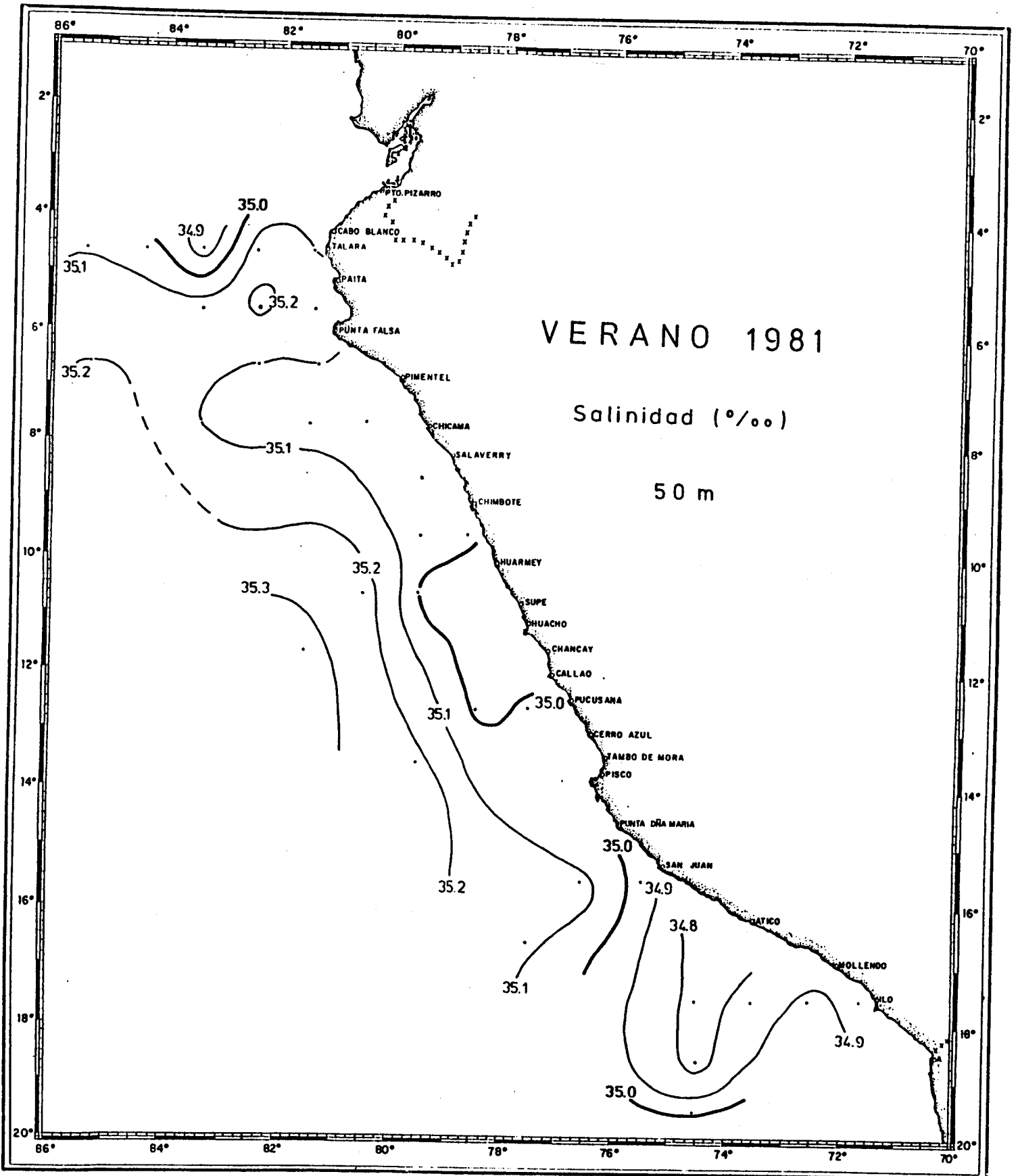


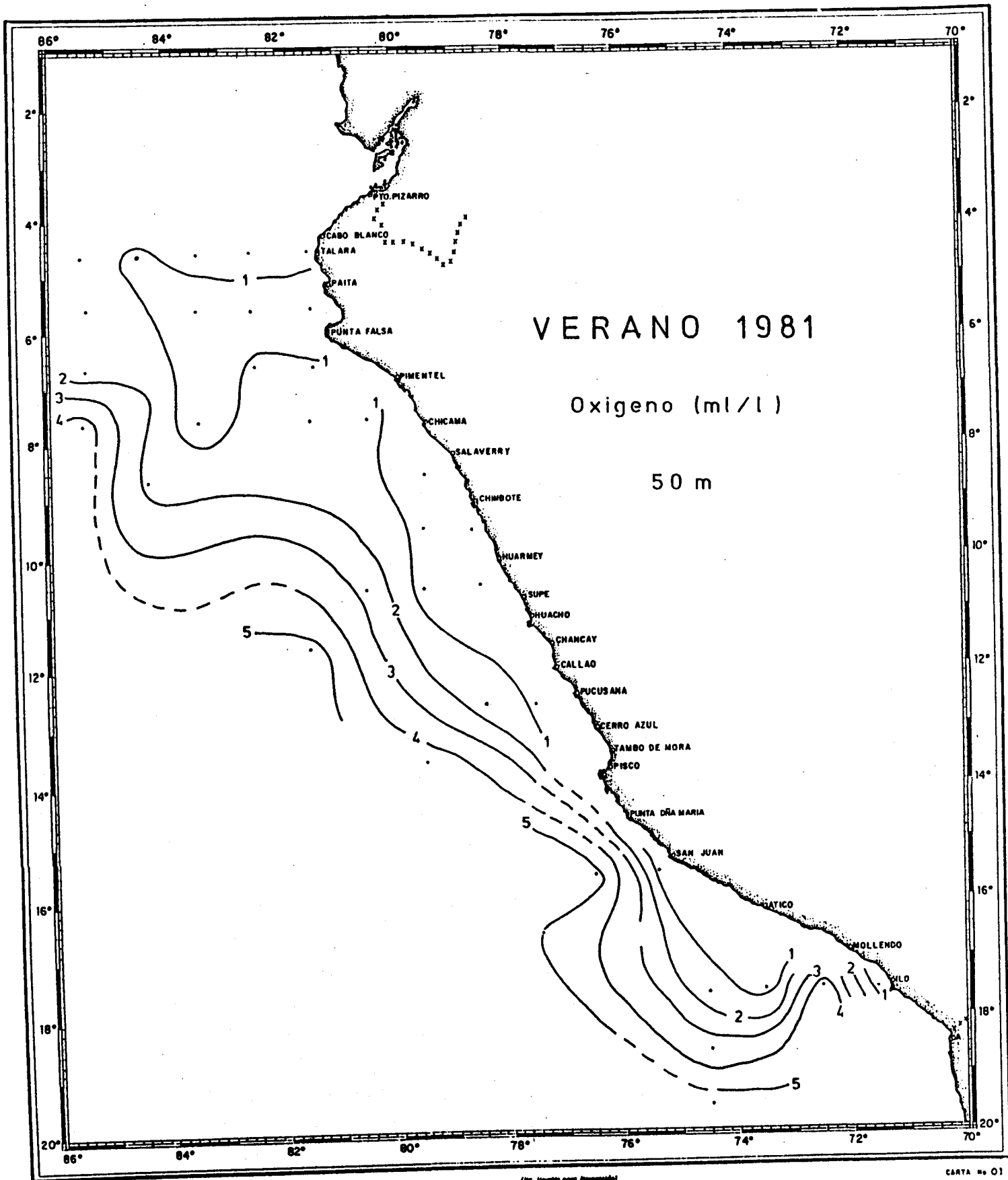


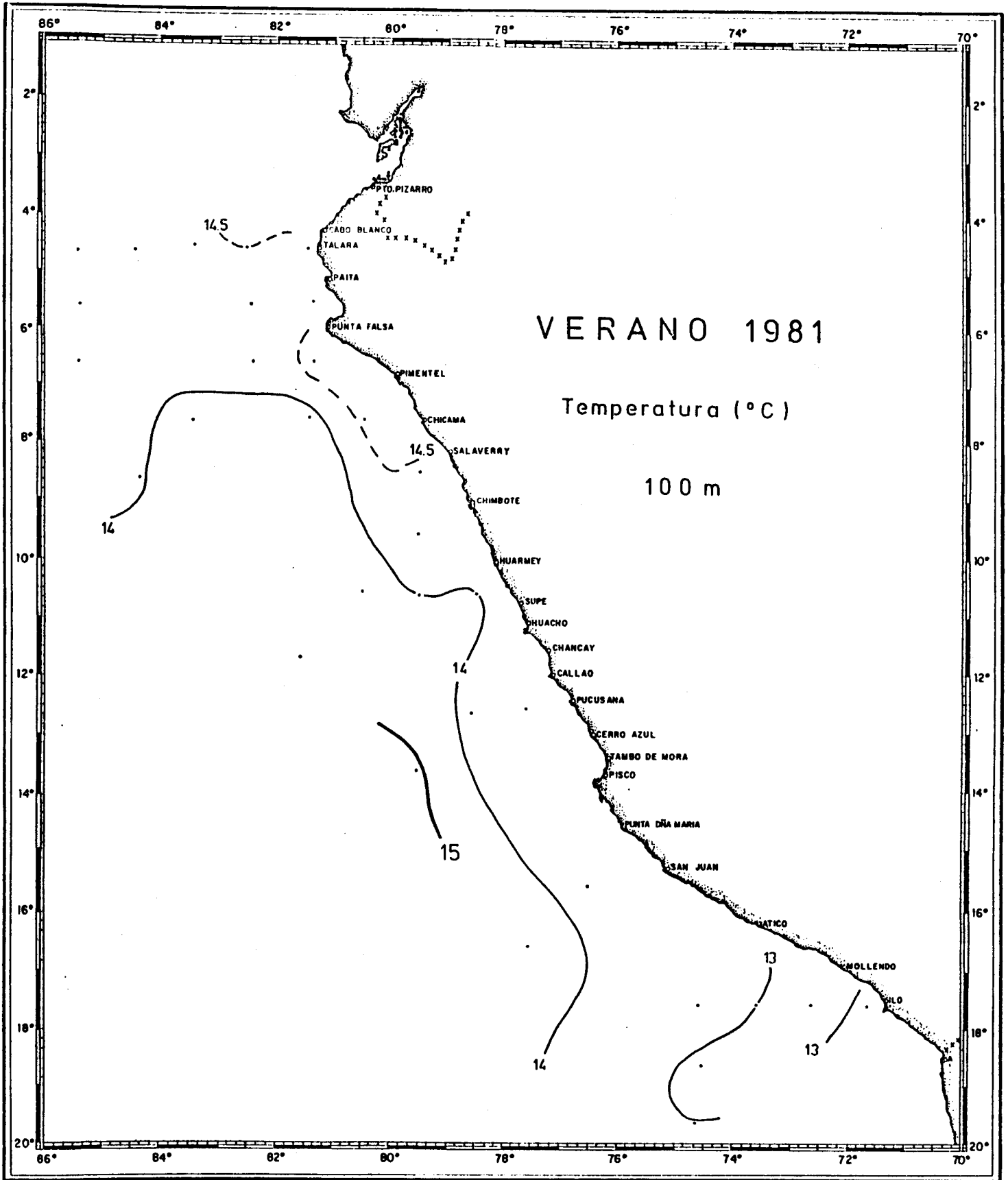


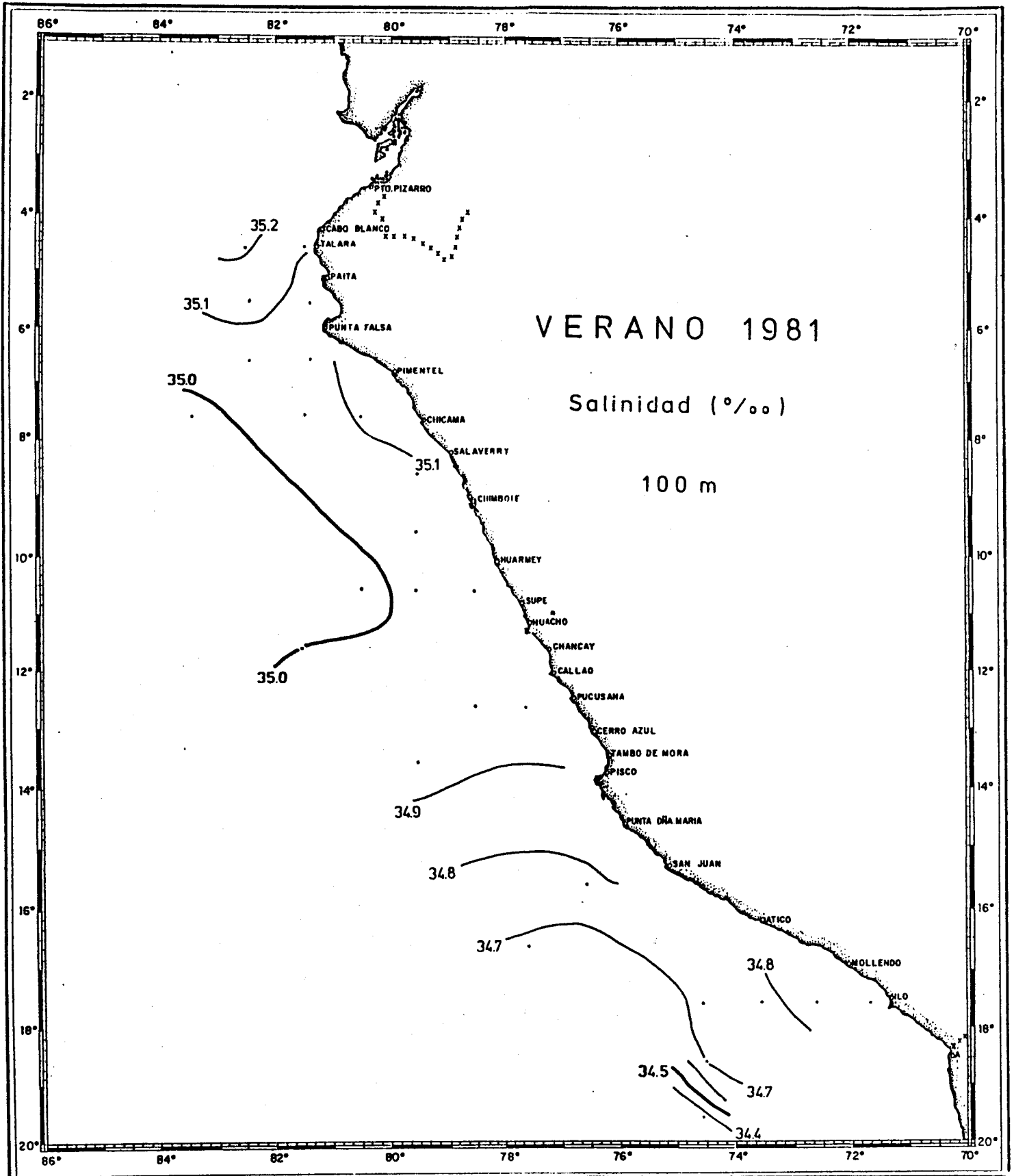


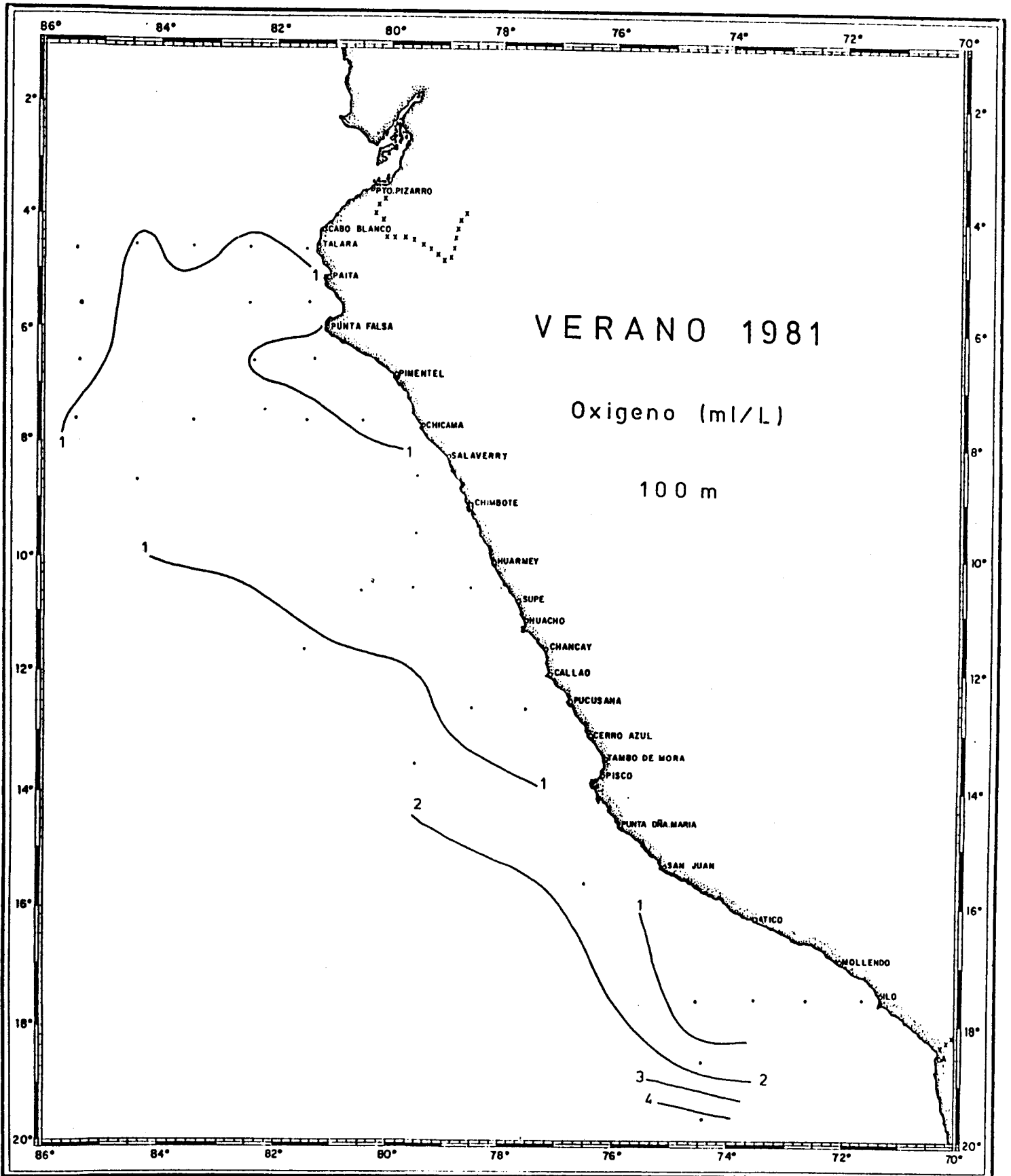


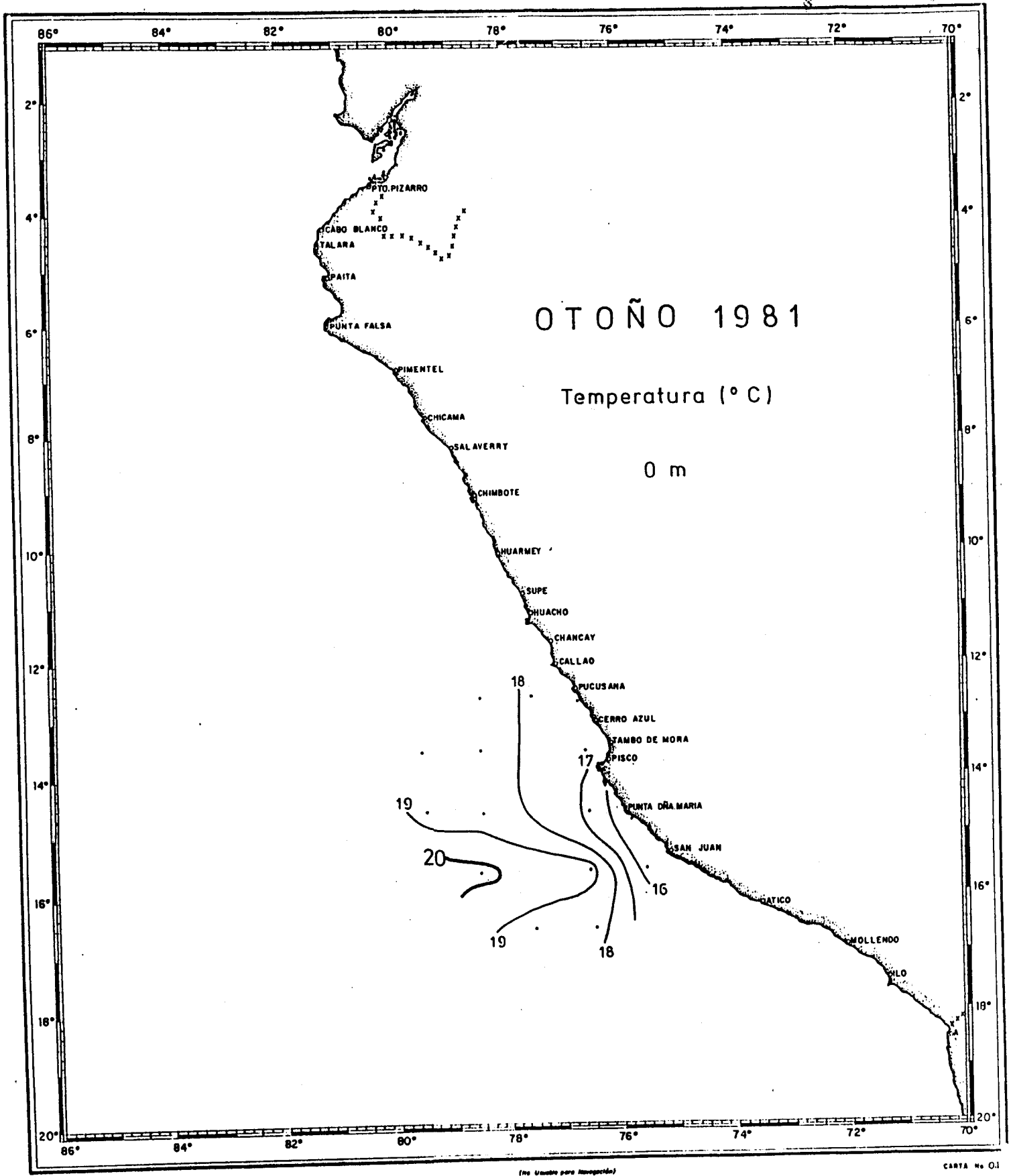


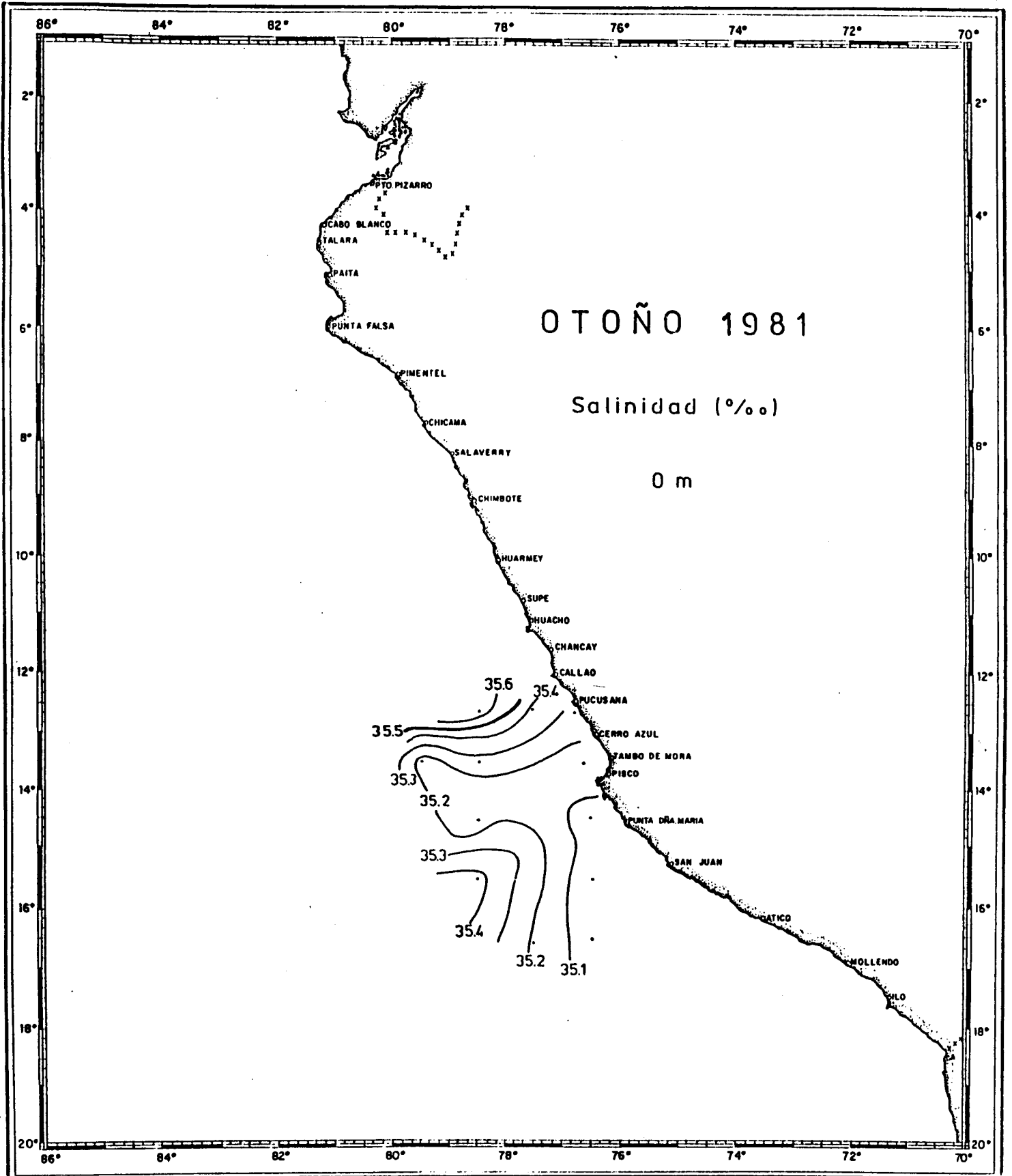


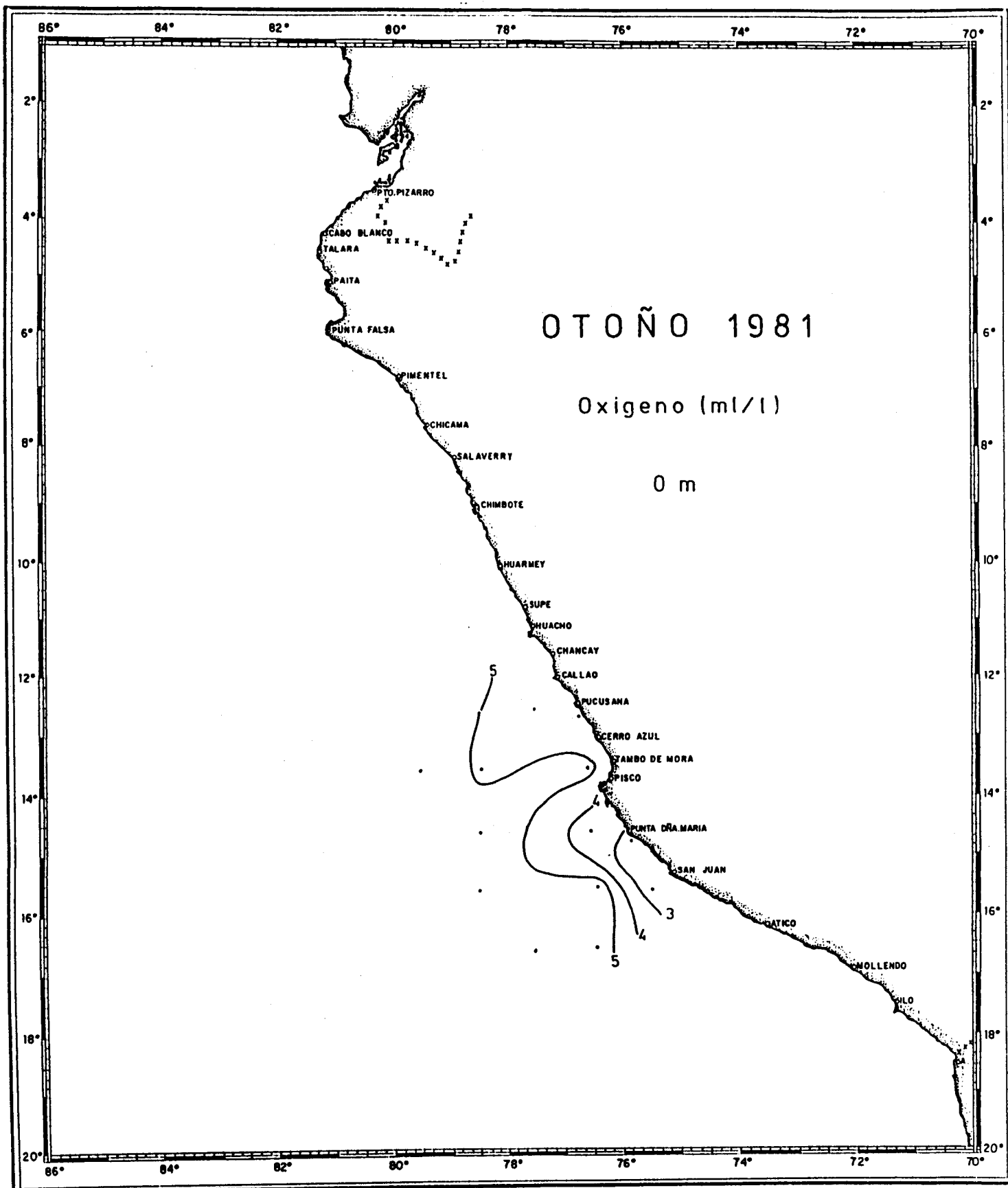


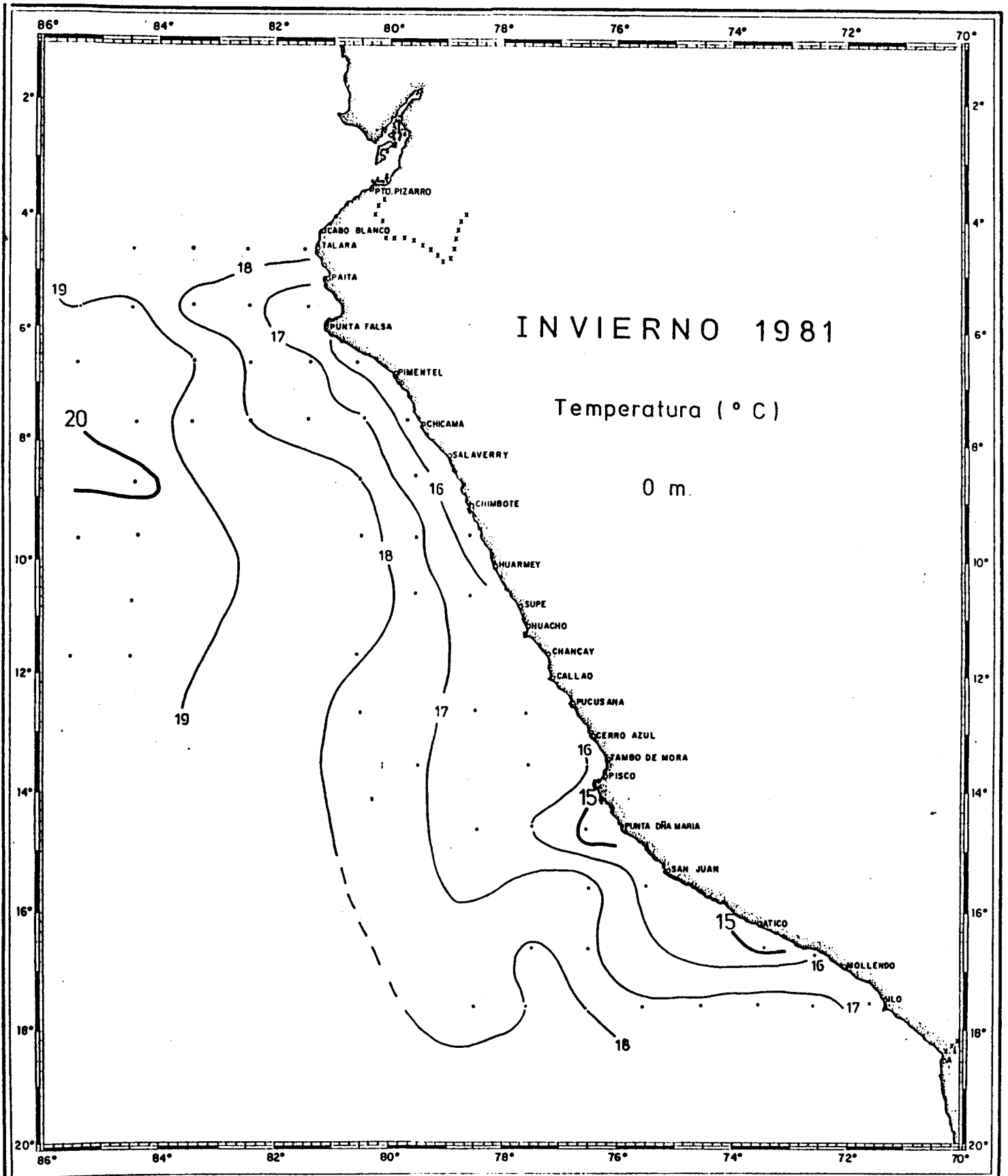


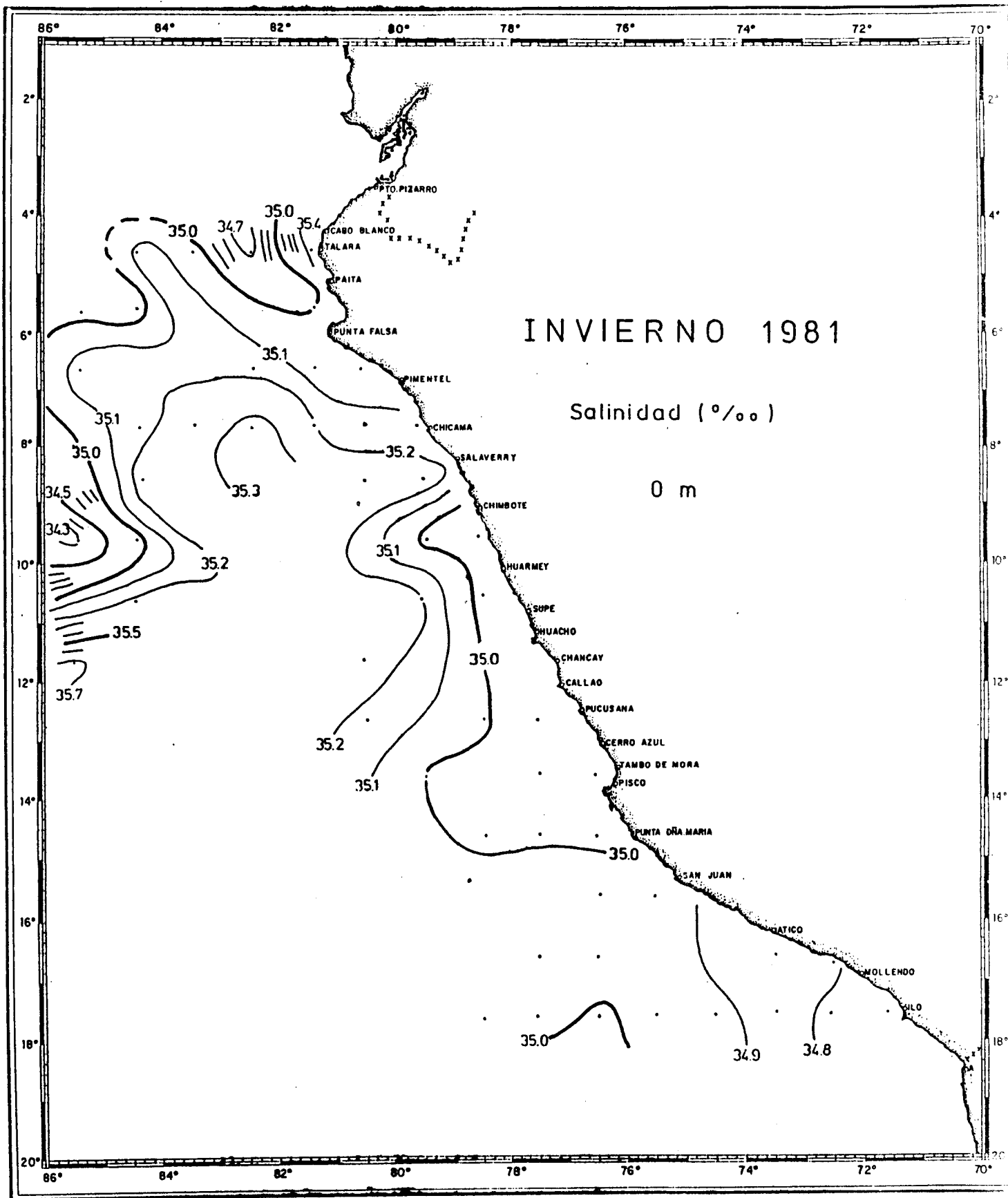


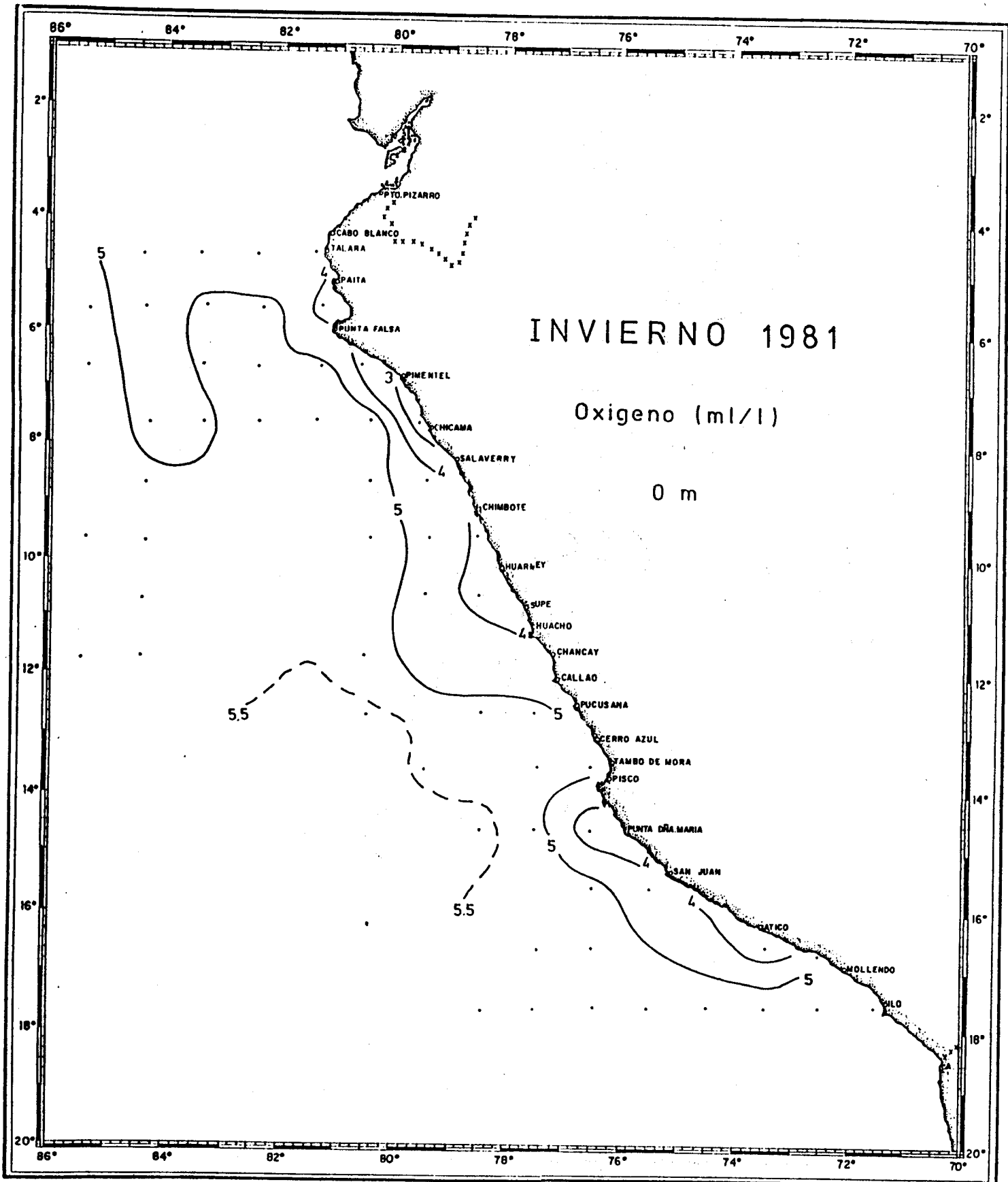








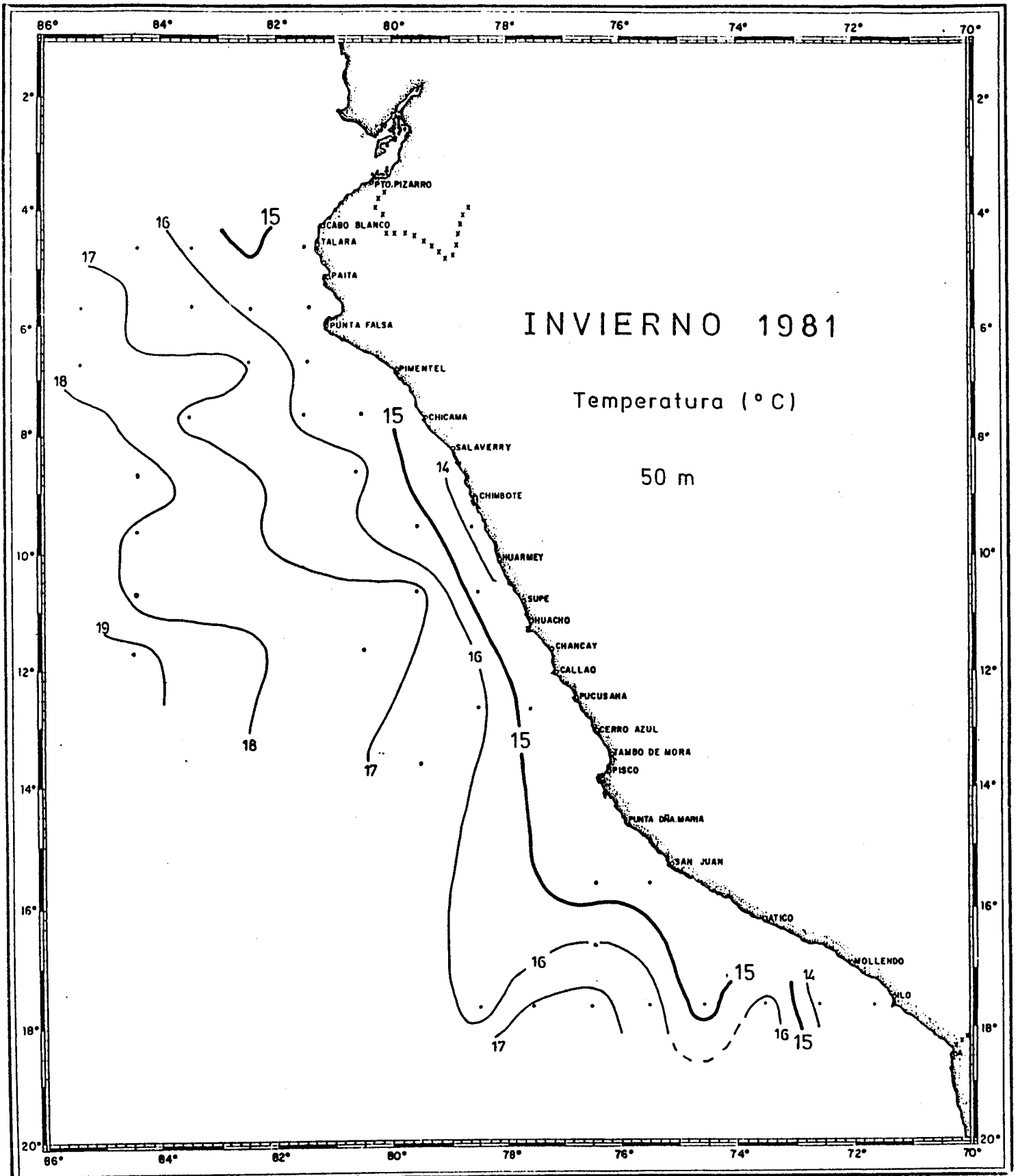


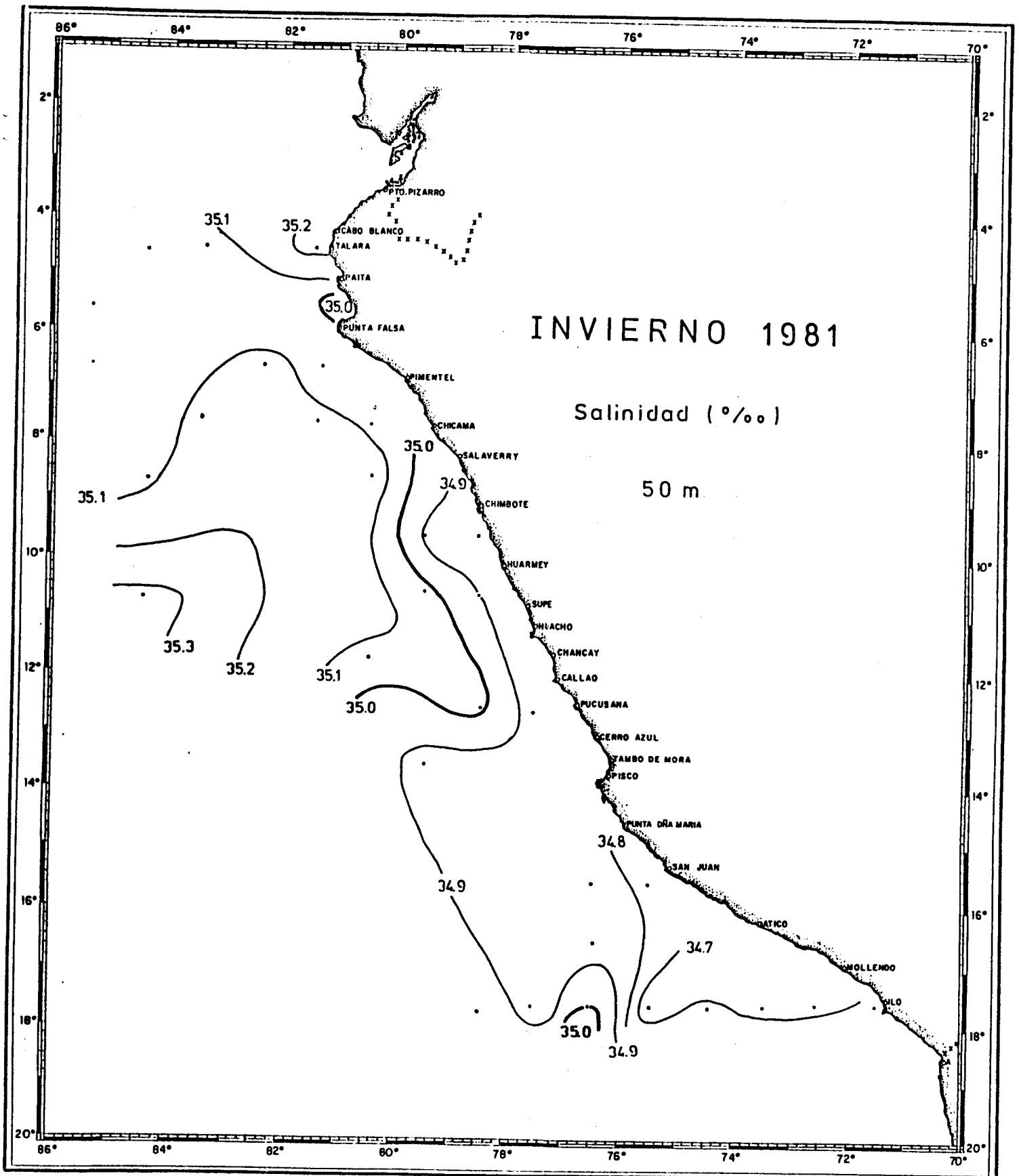


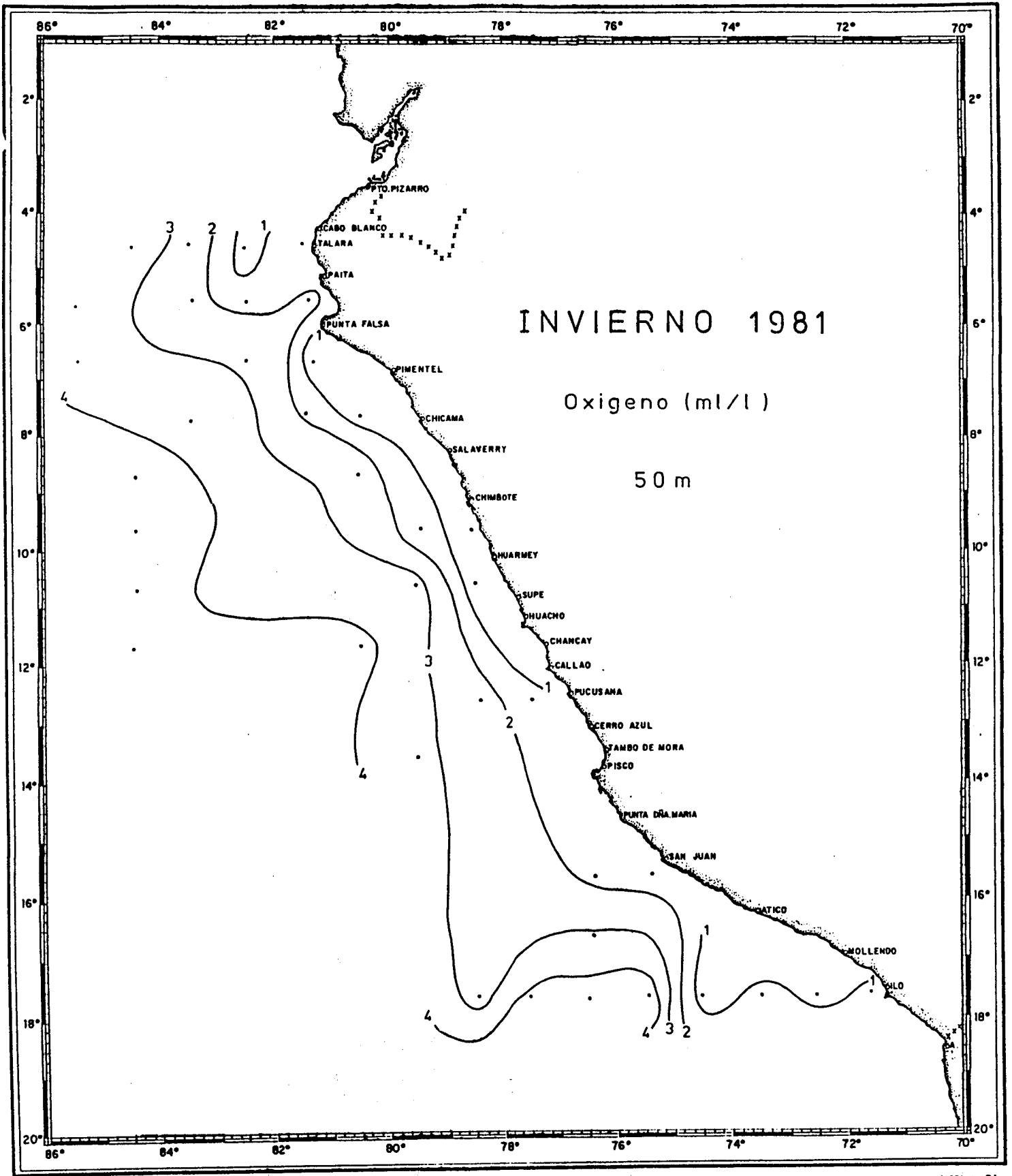
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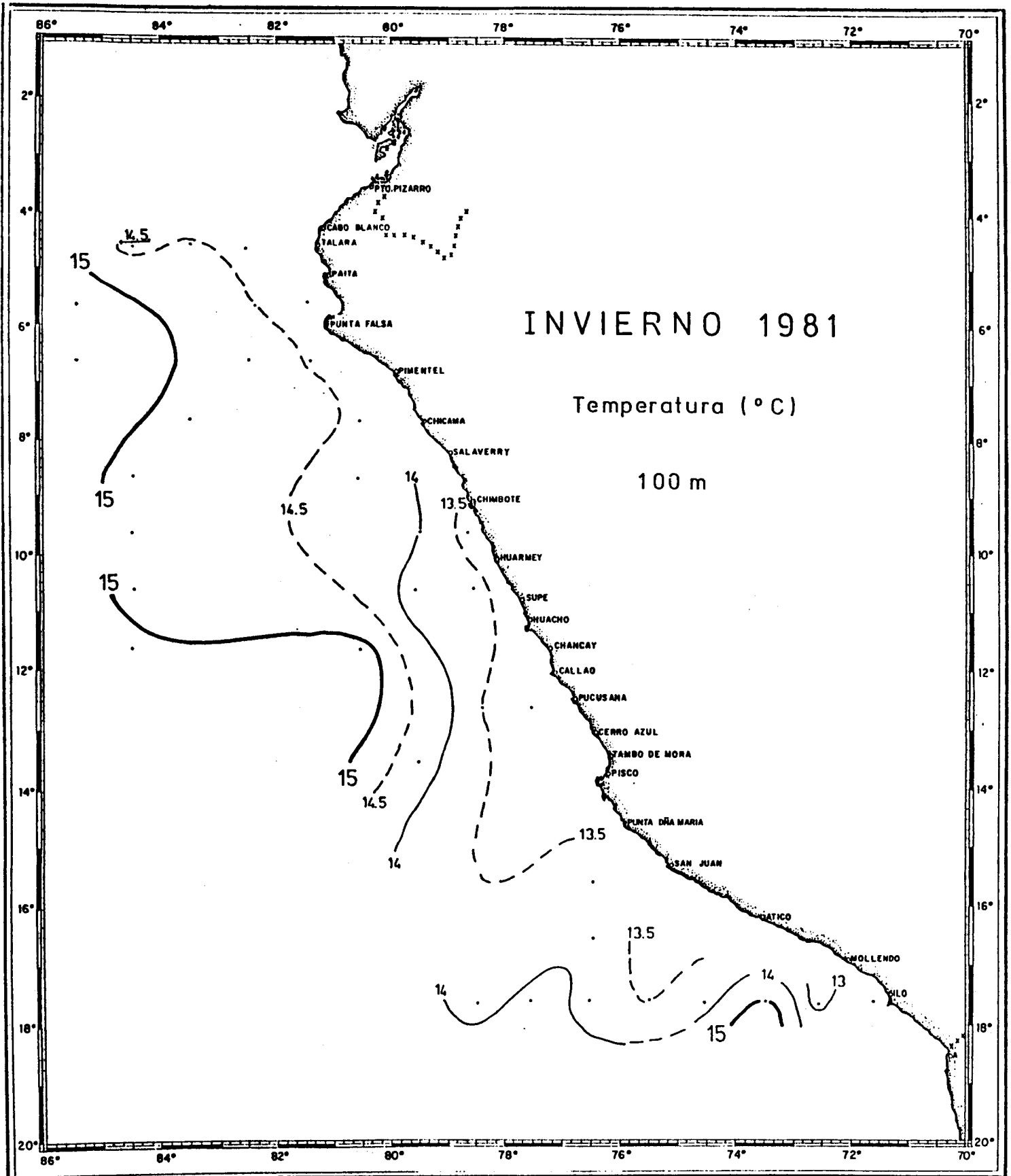
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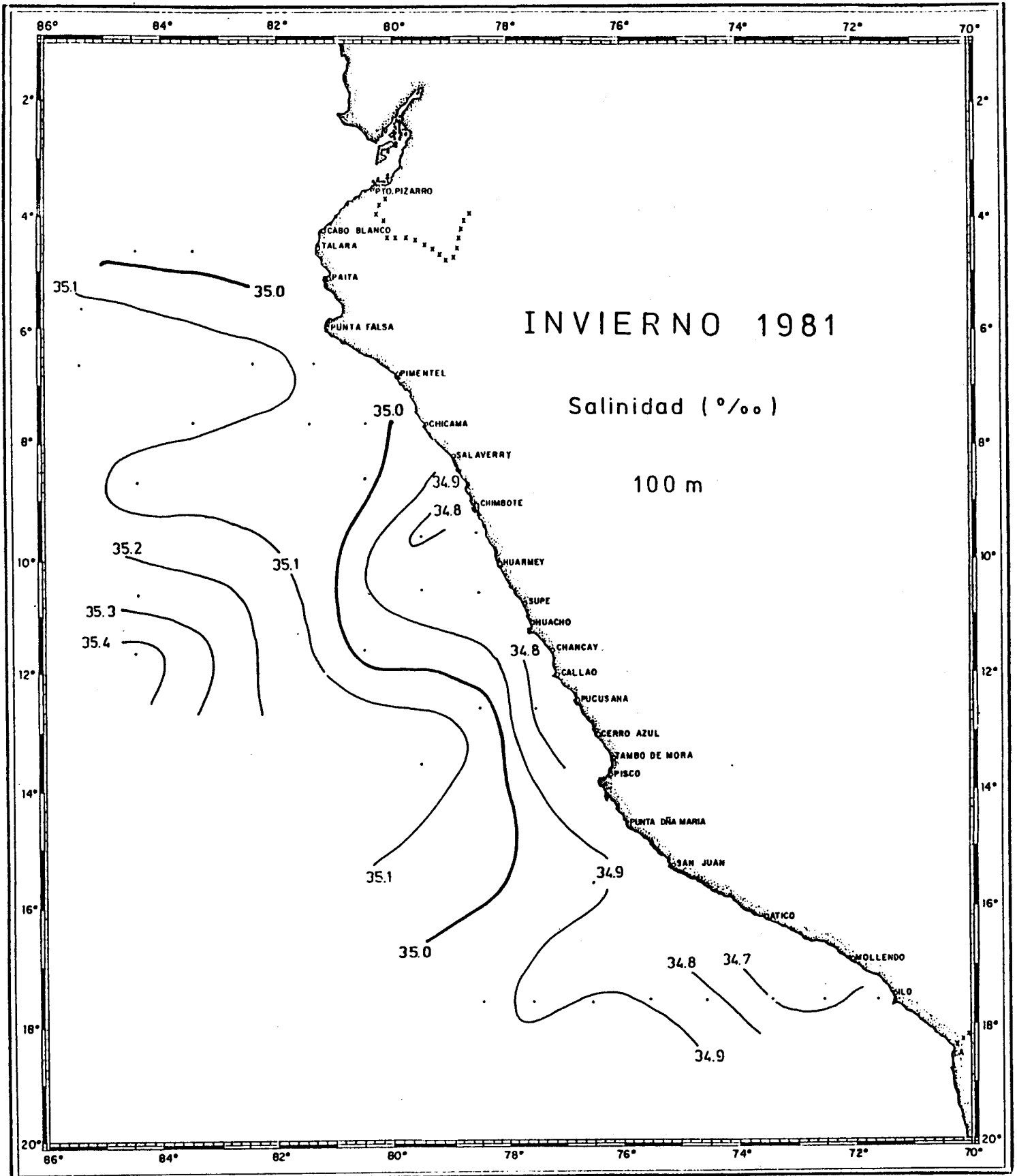
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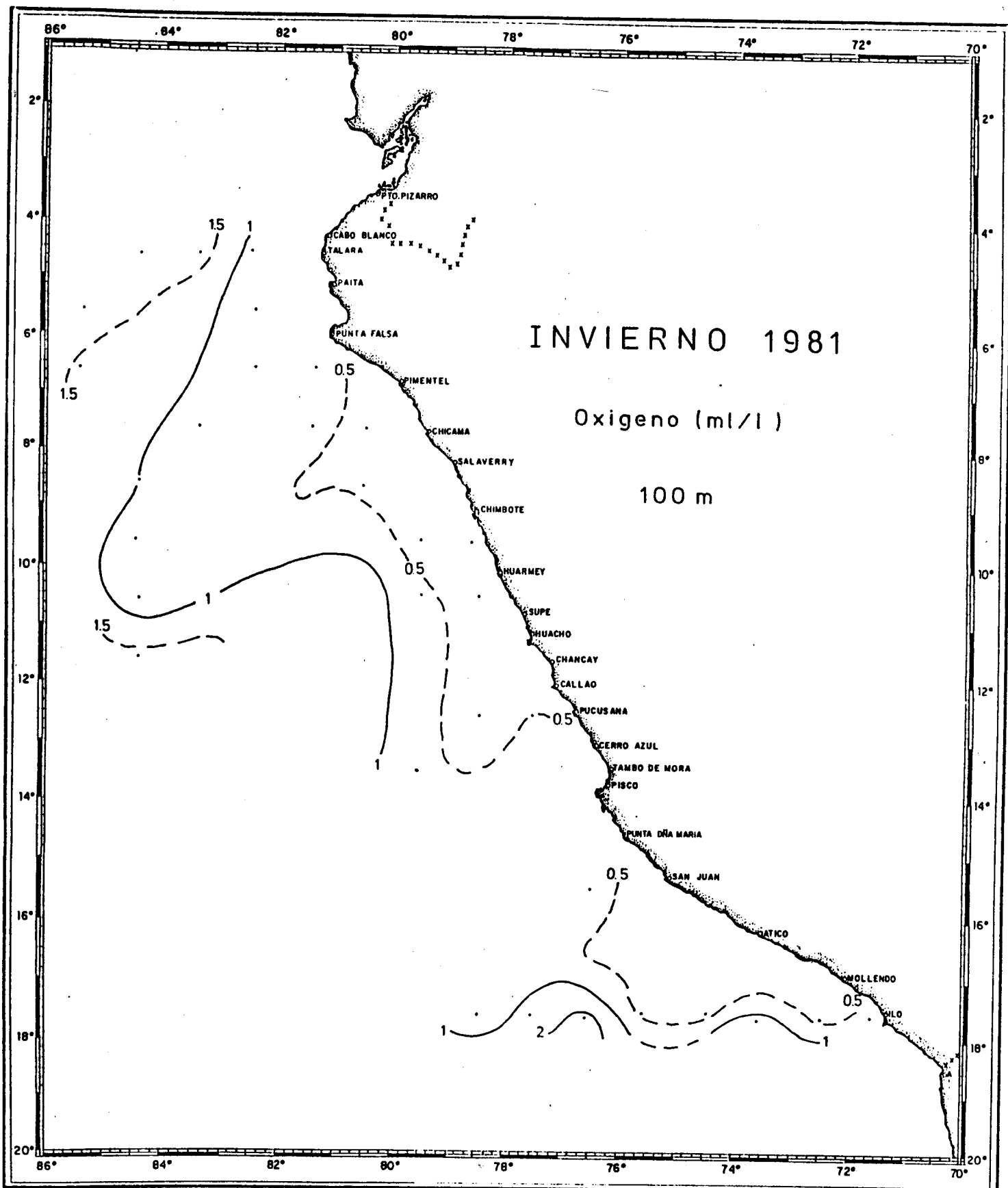


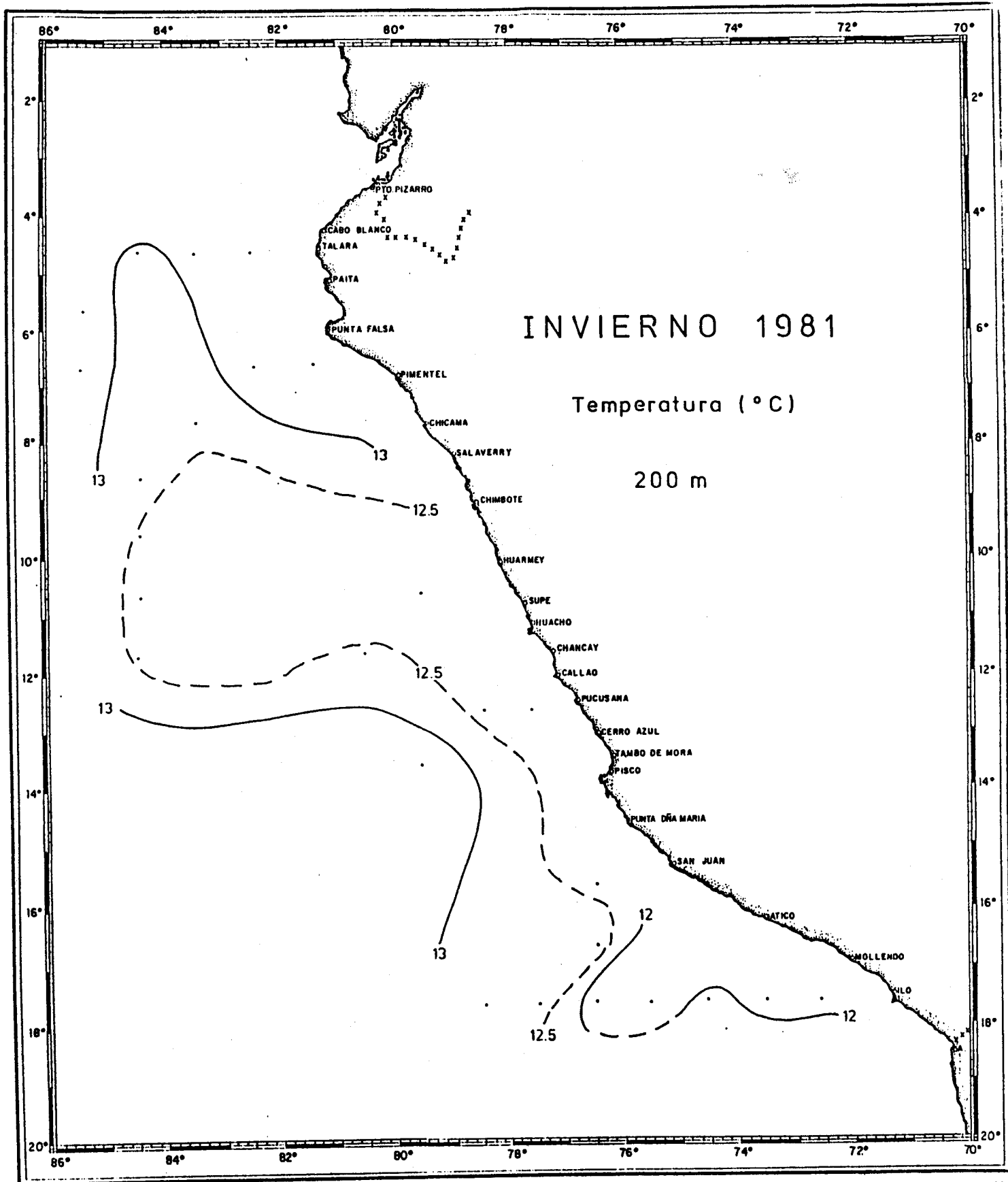


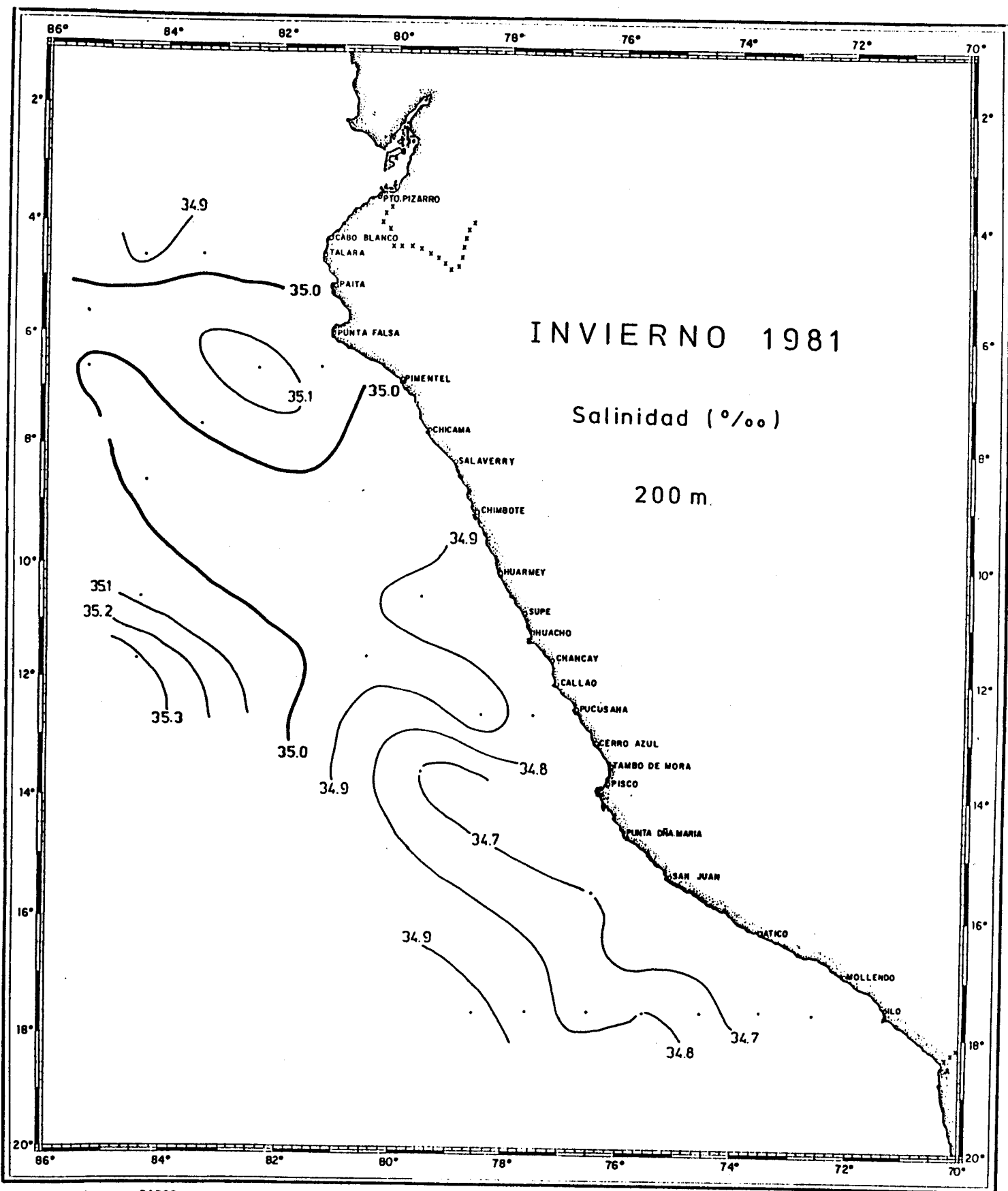


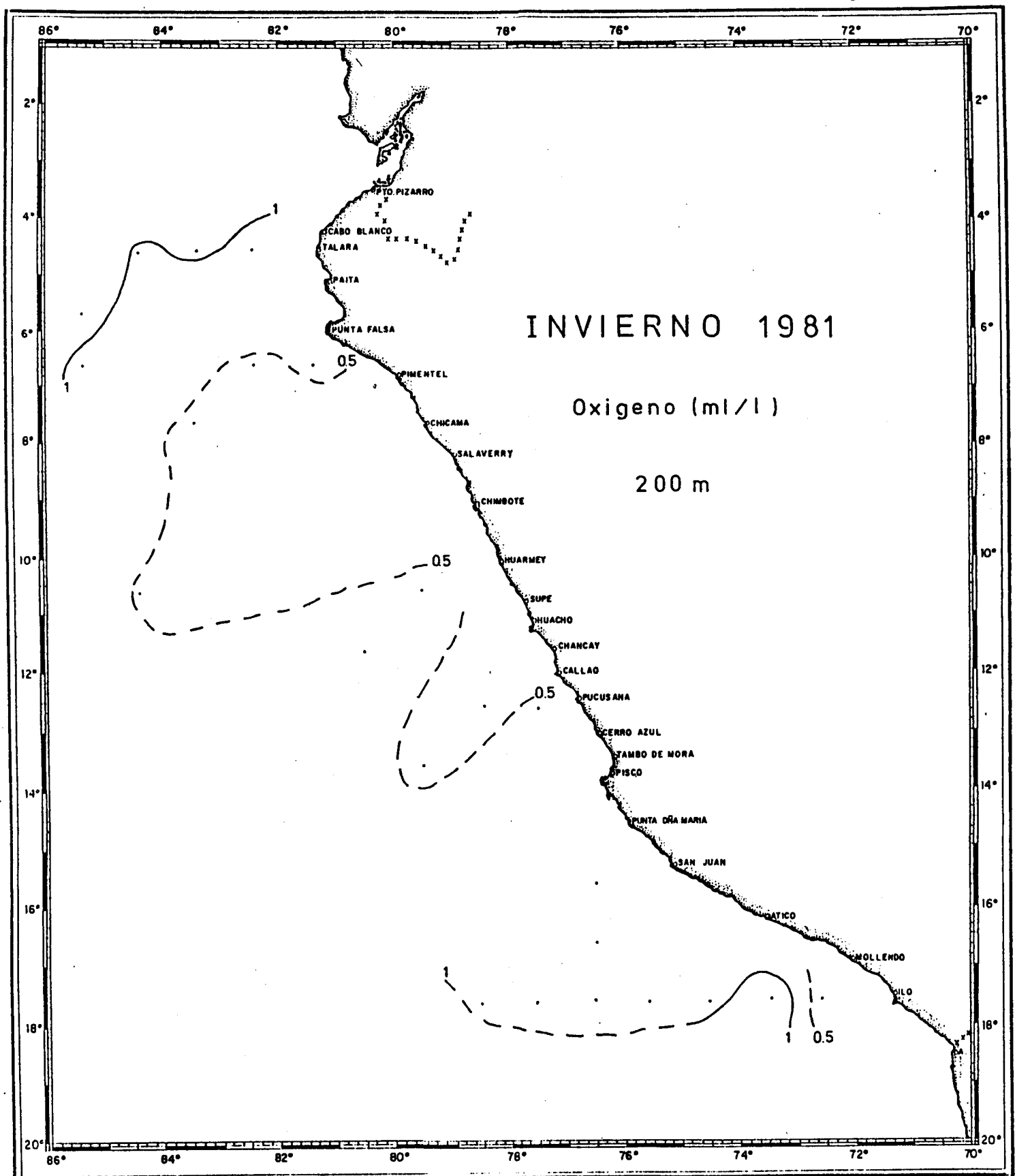


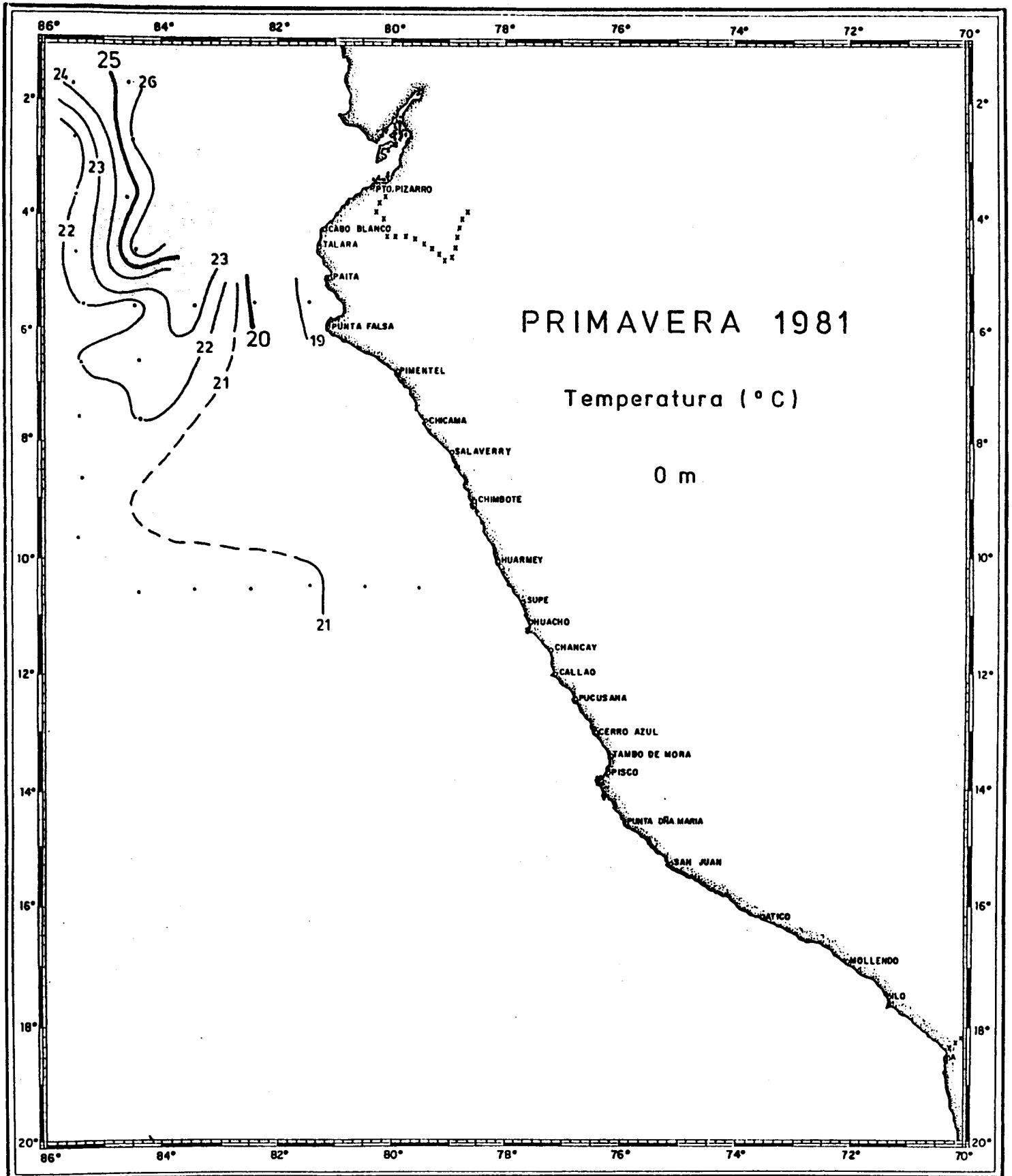


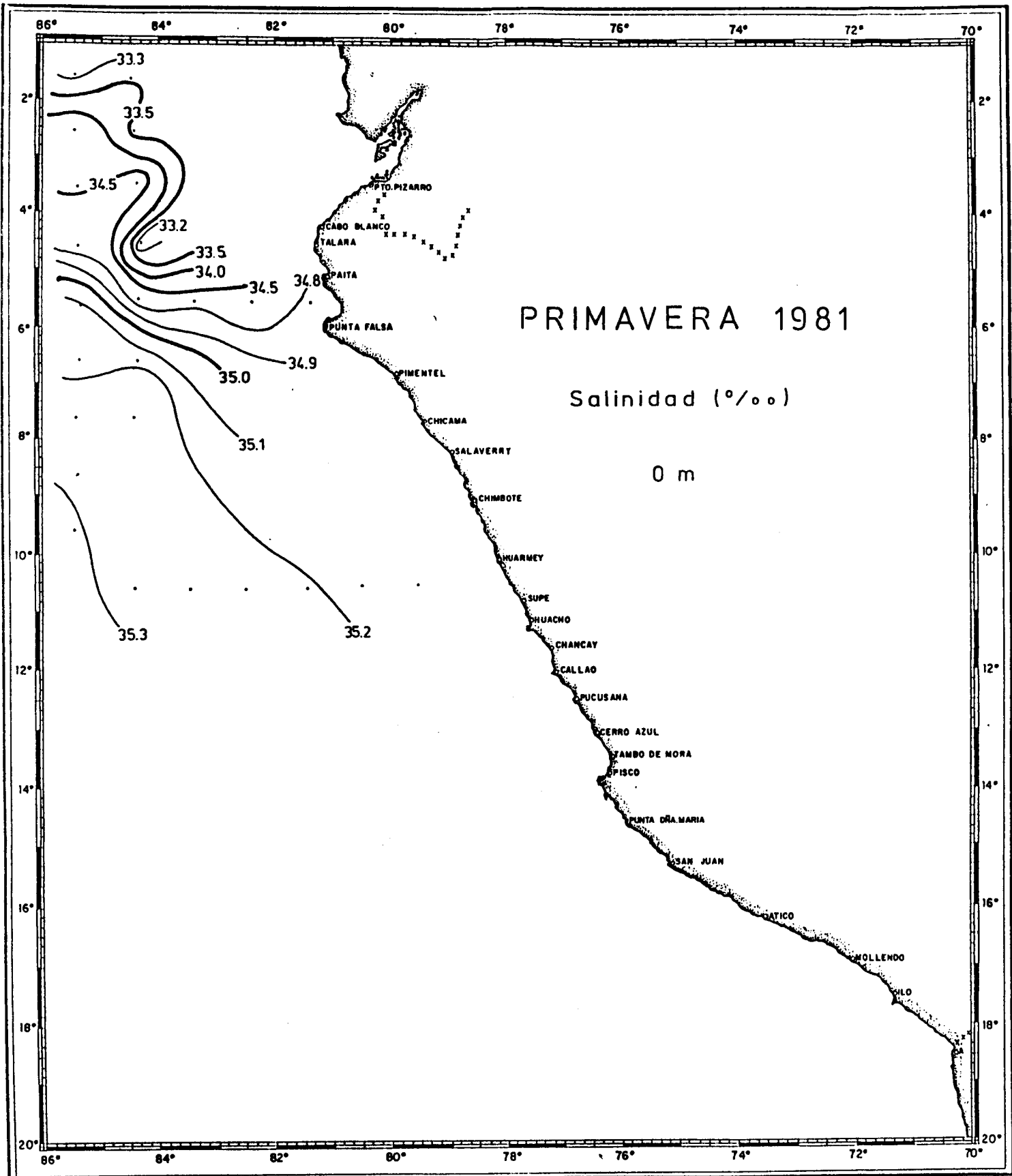


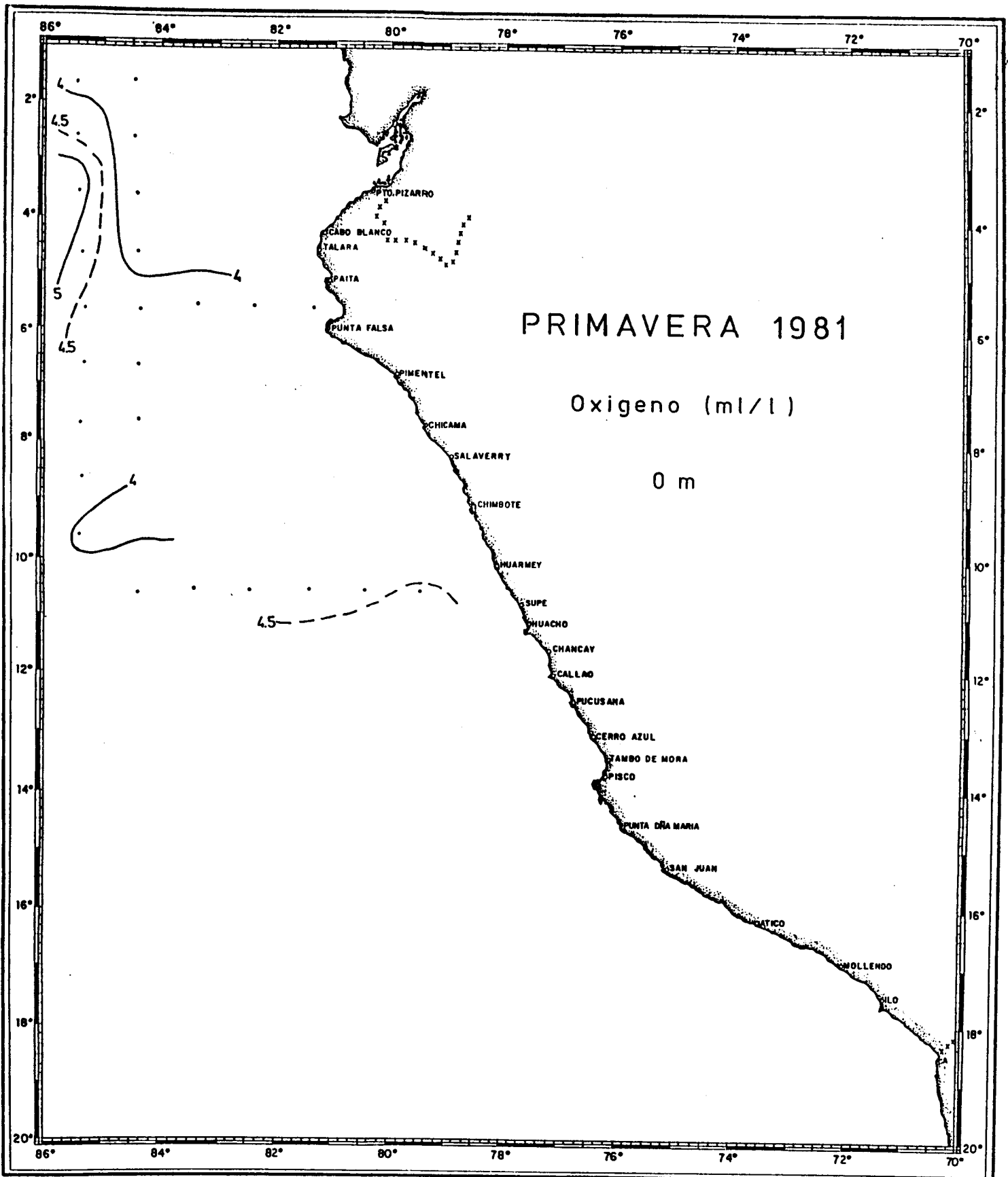


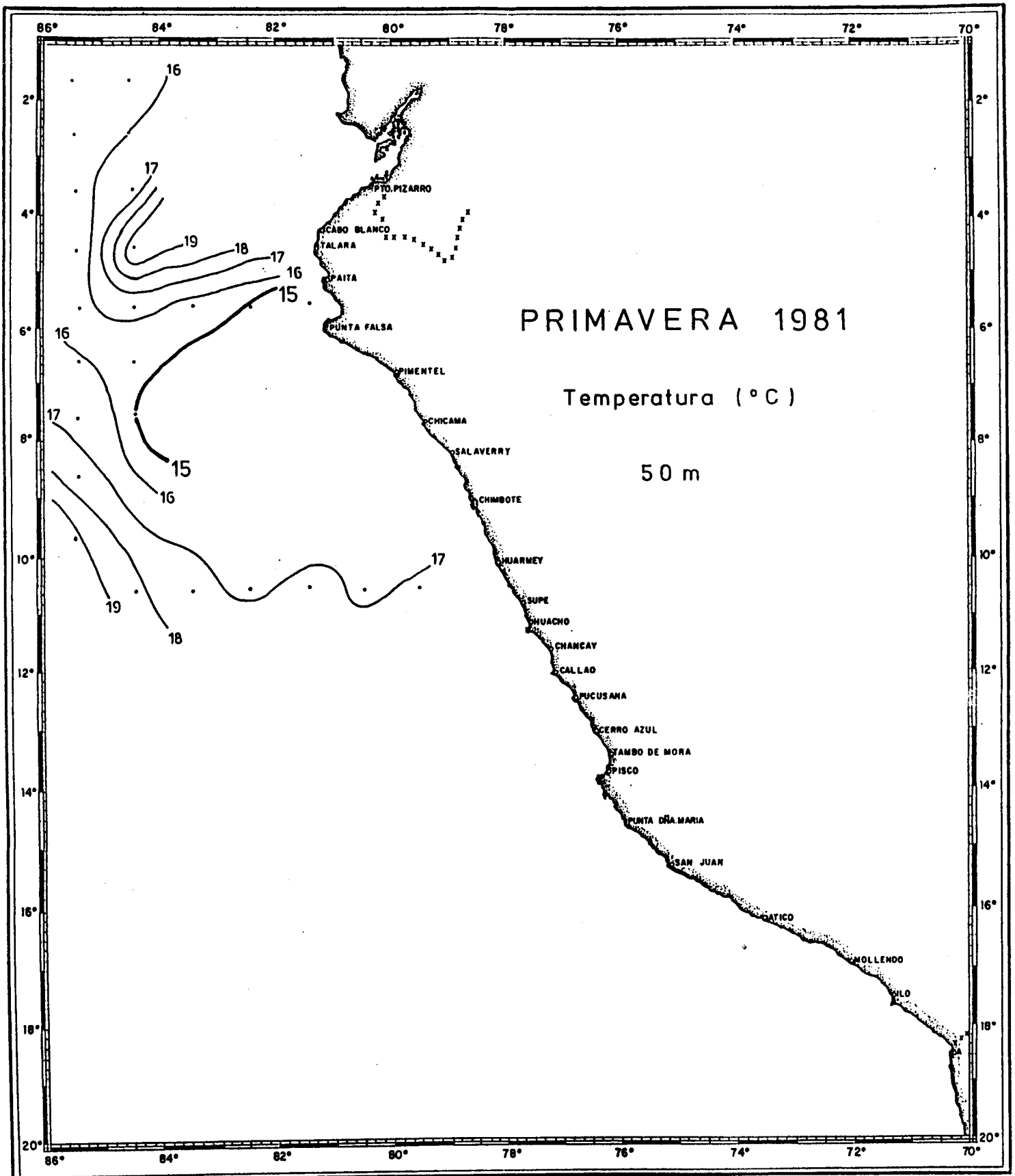


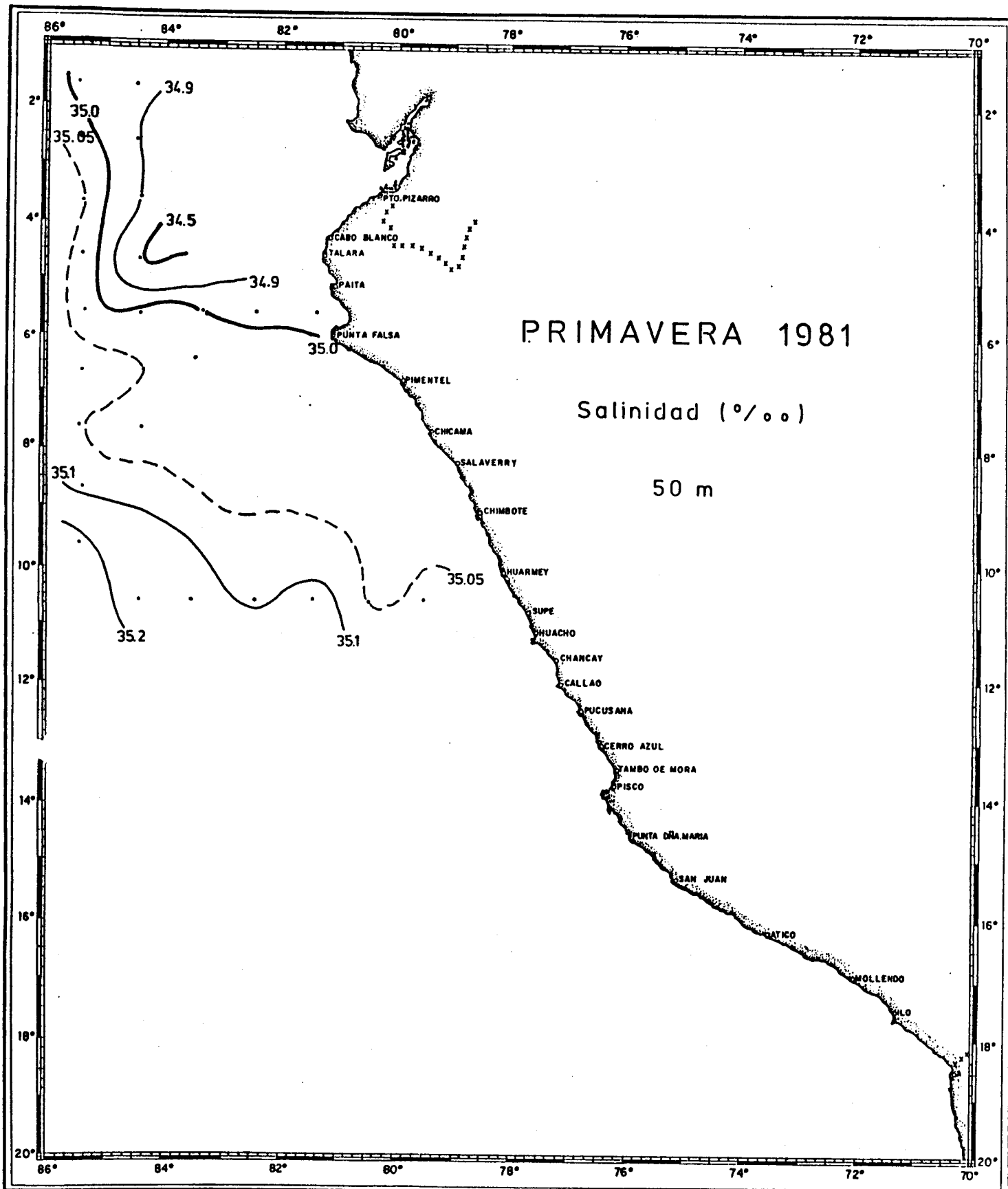


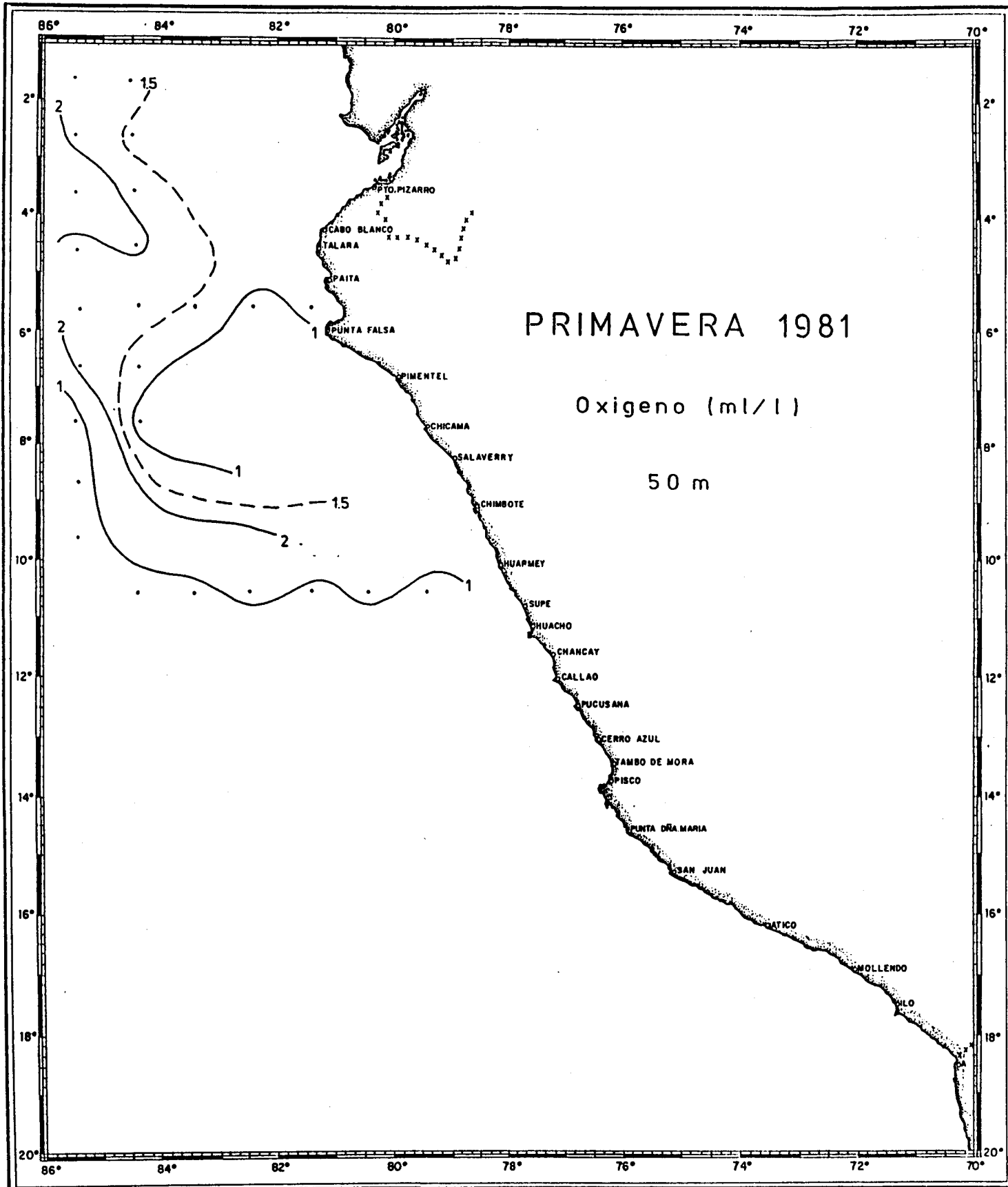


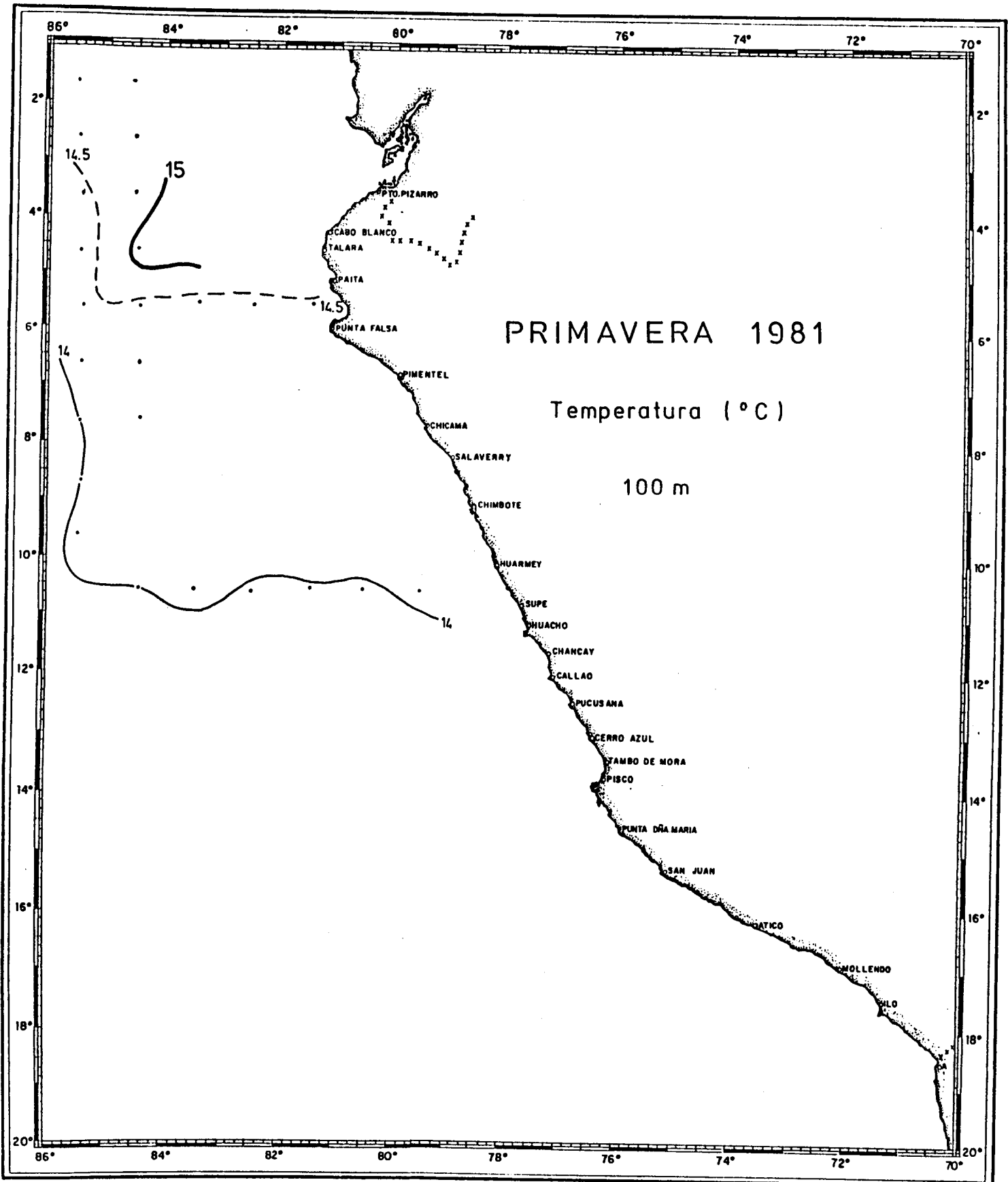


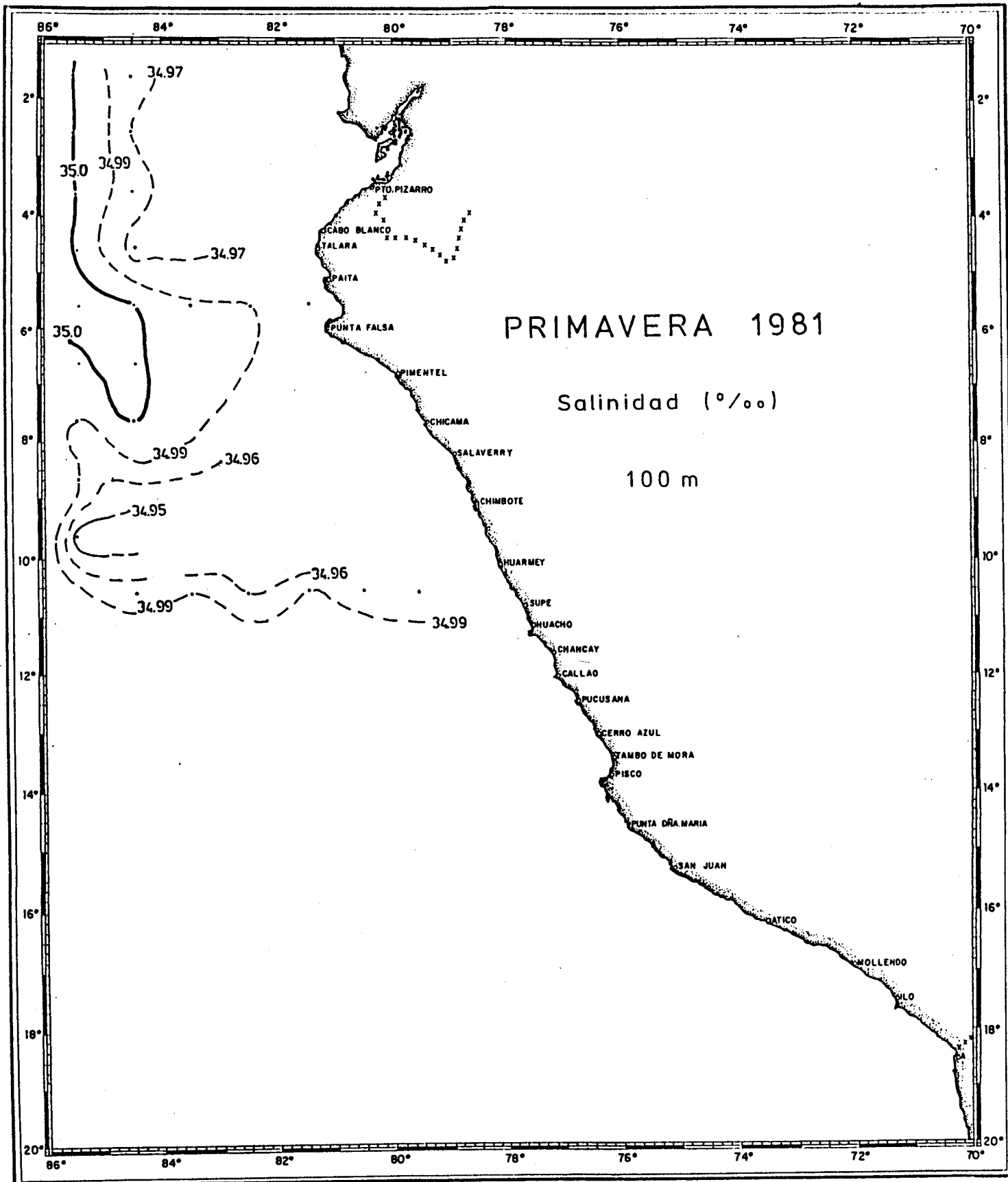


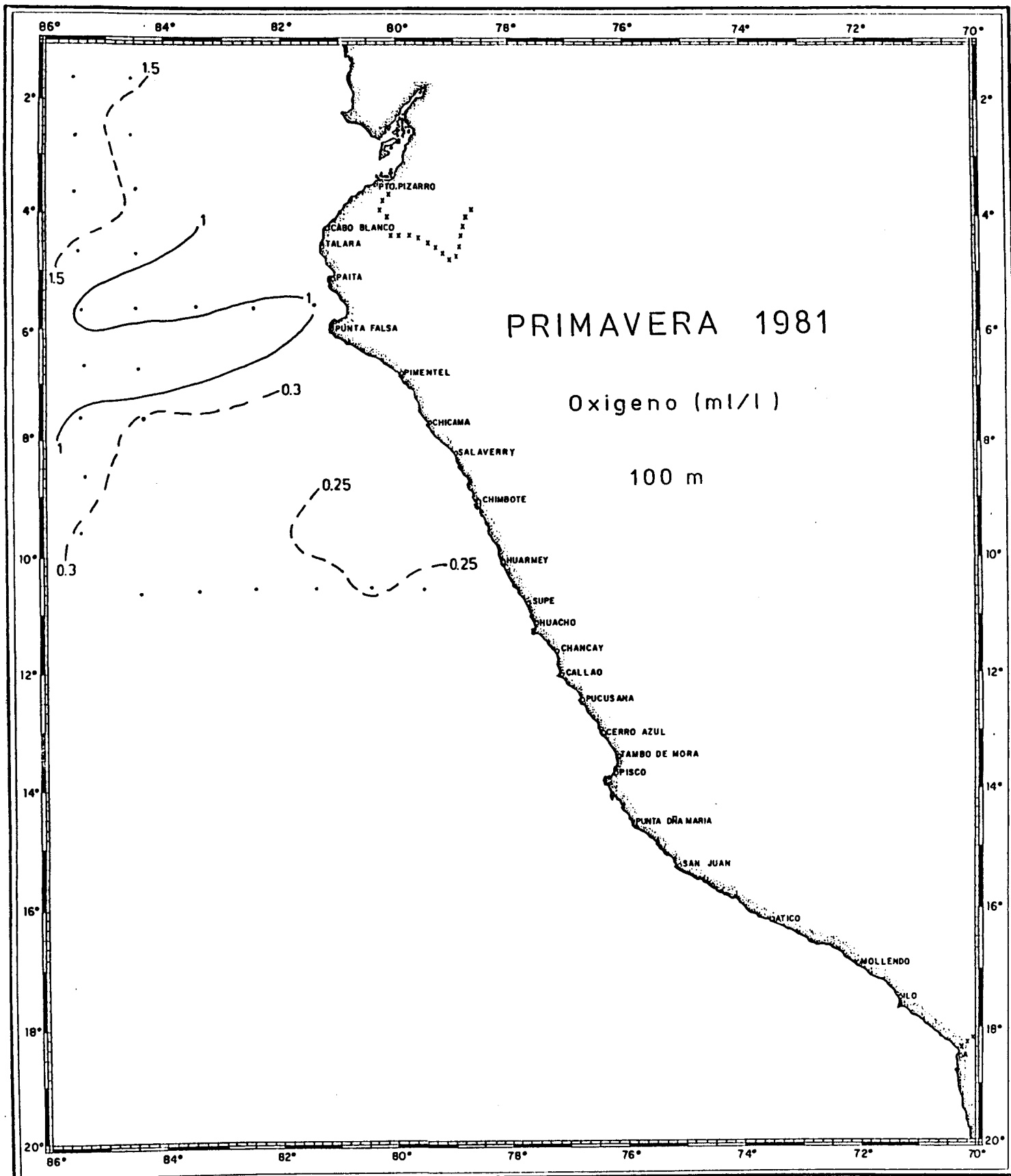


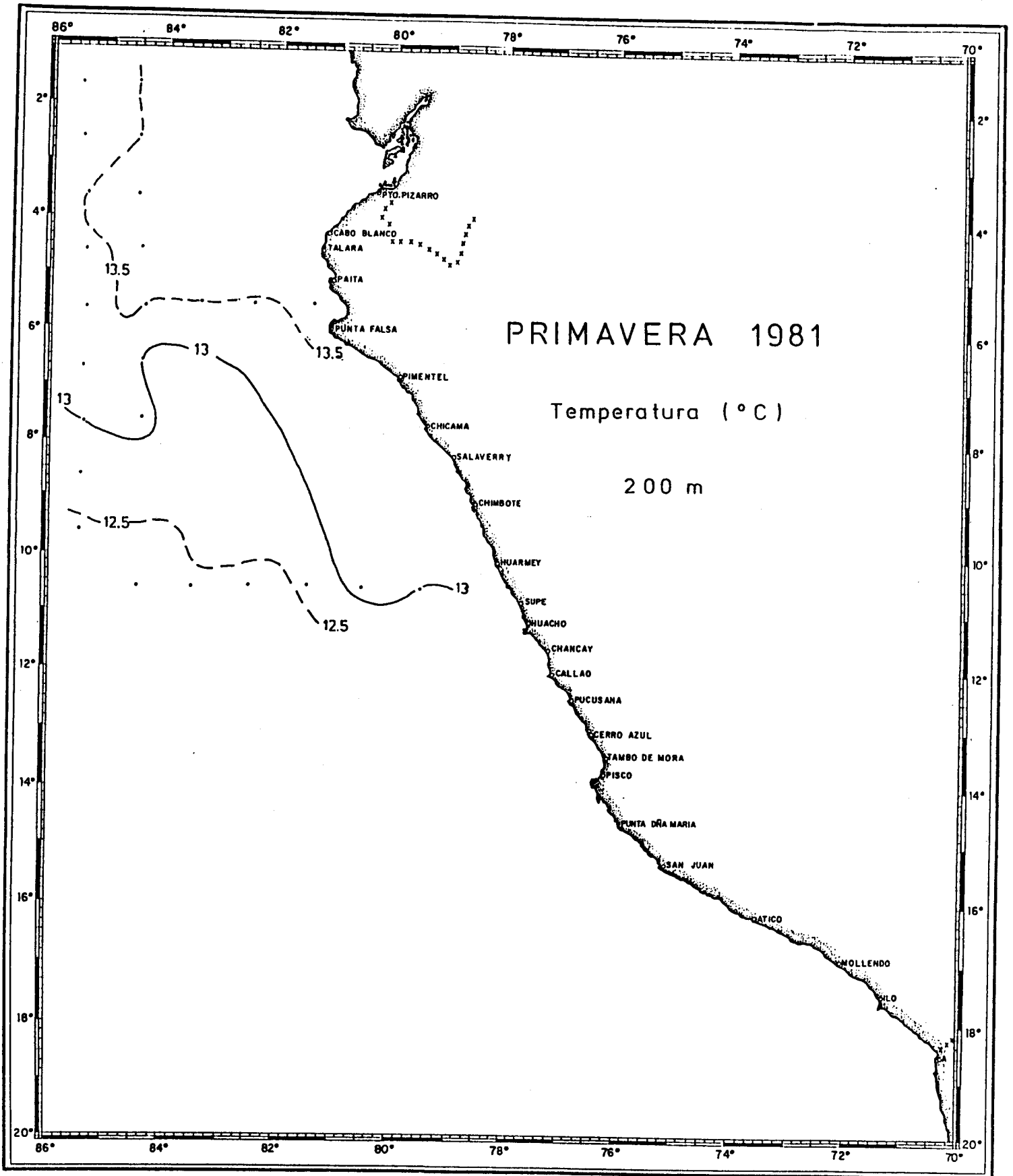


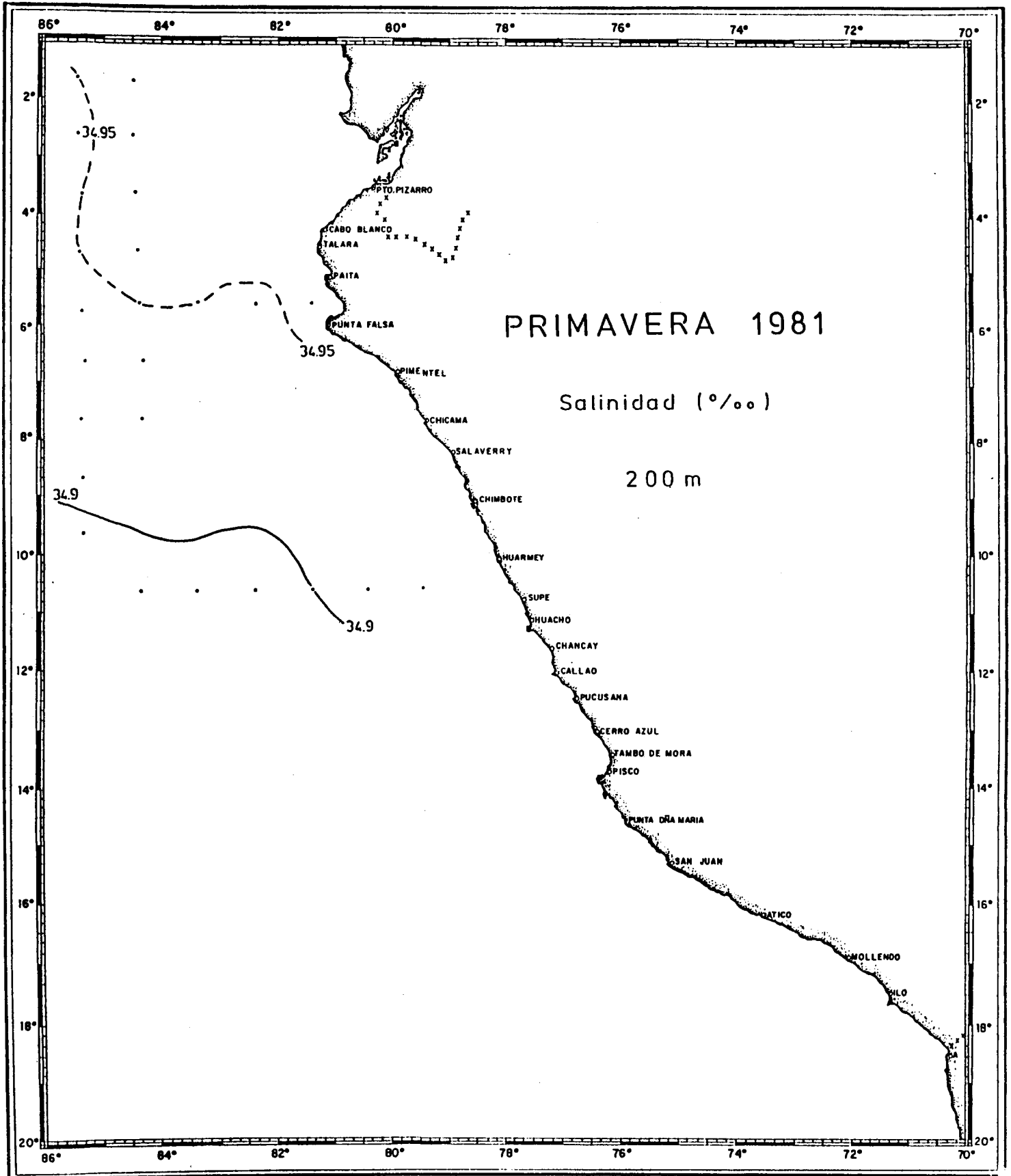


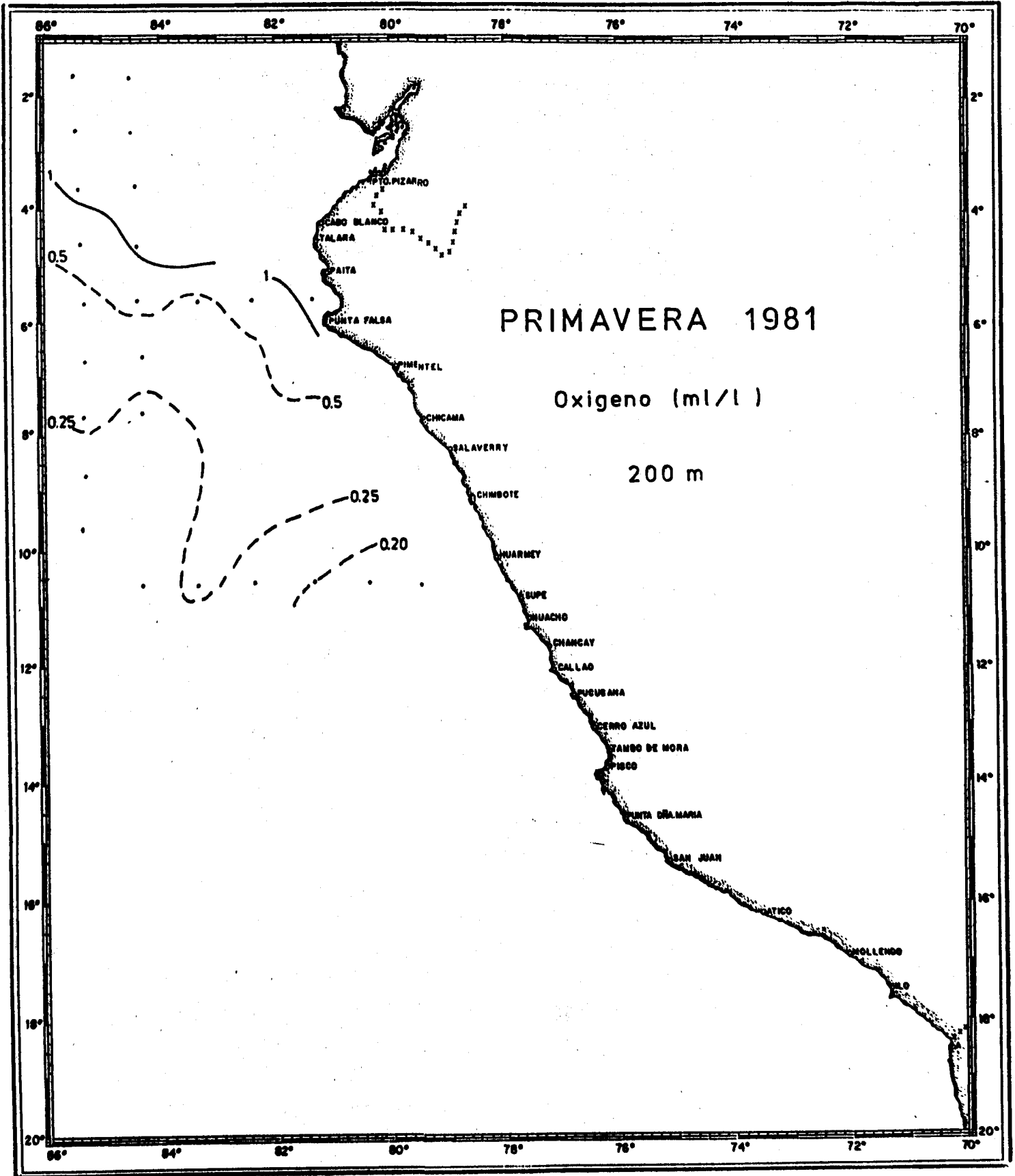








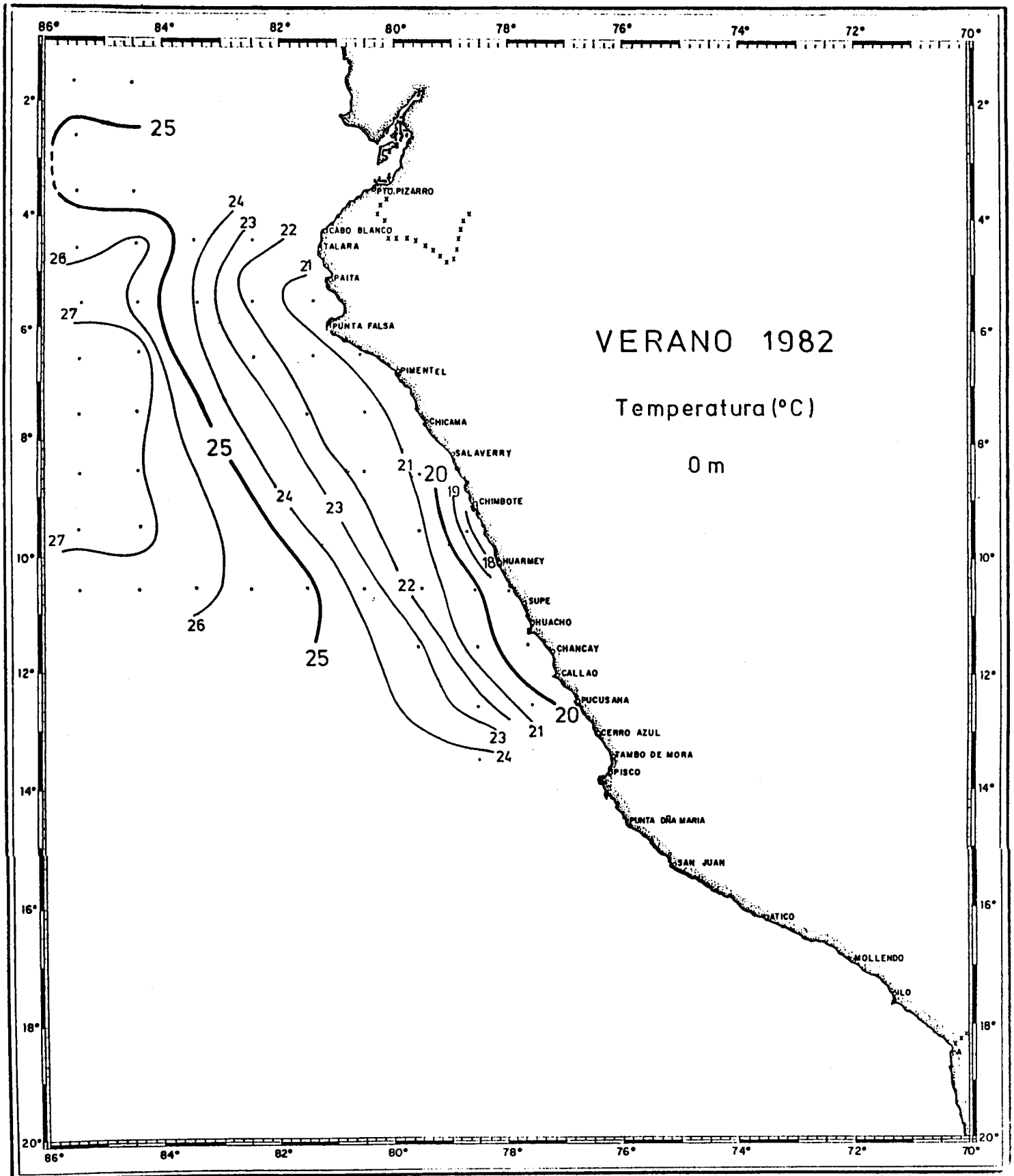


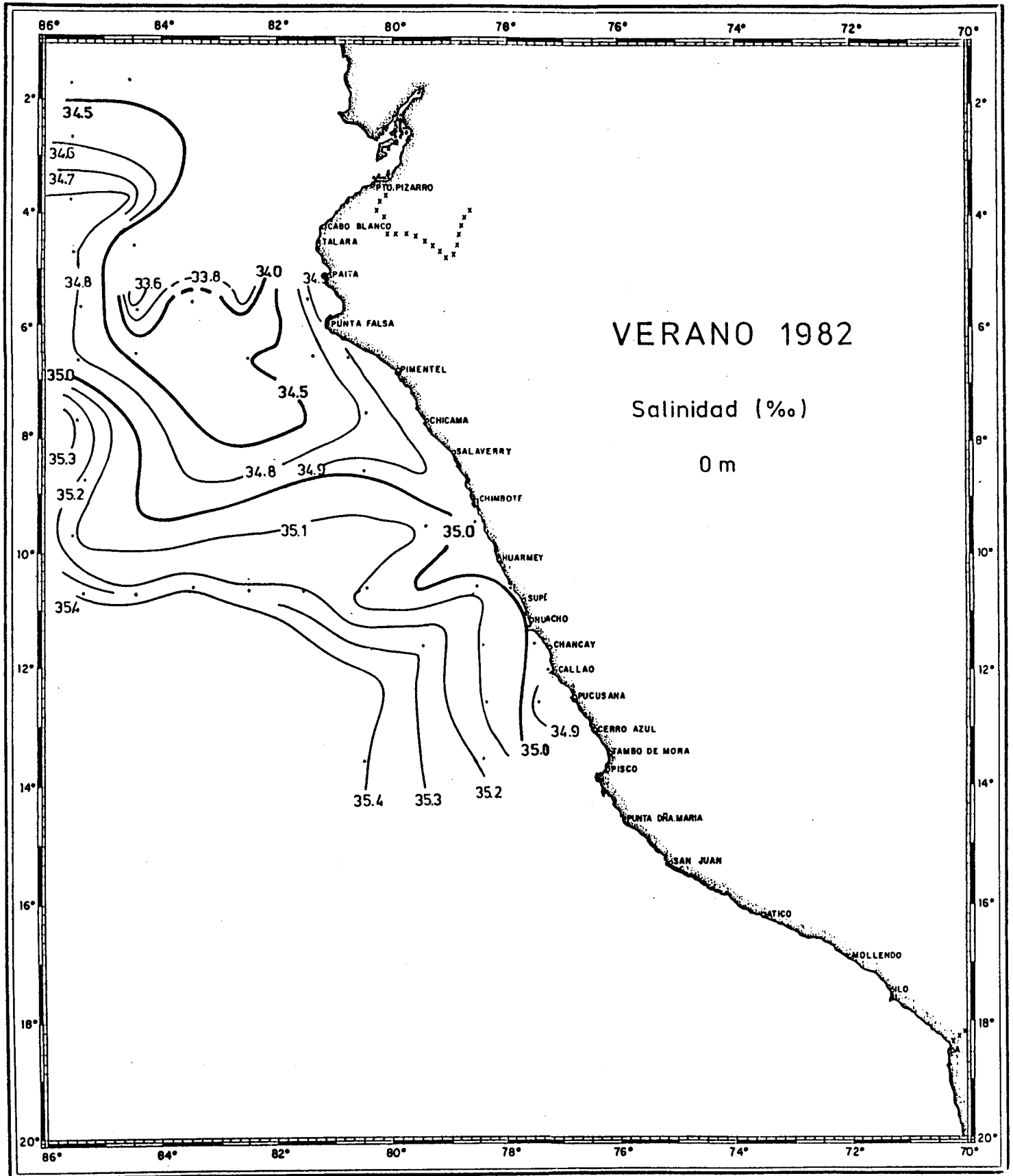


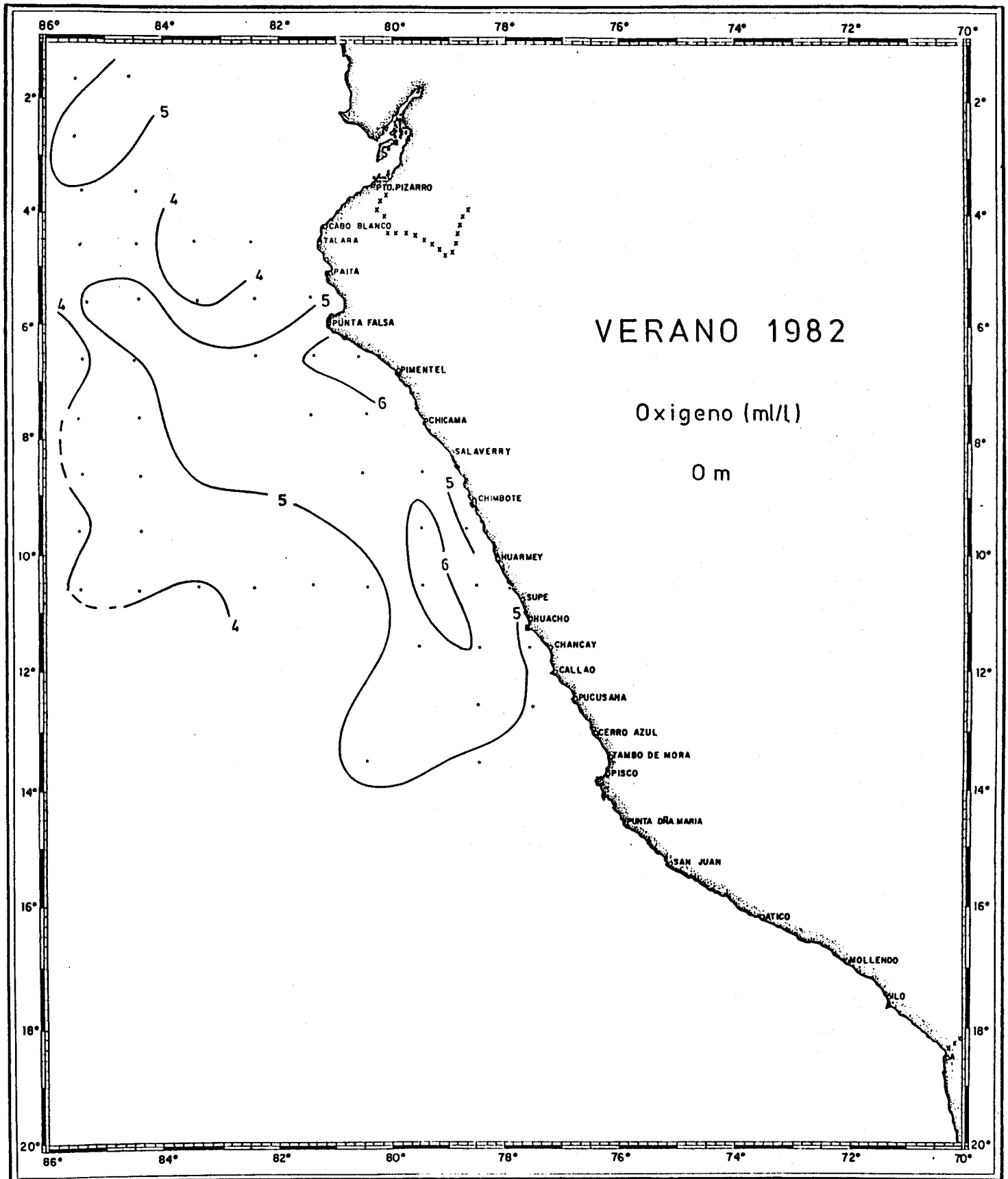
PRIMAVERA 1981

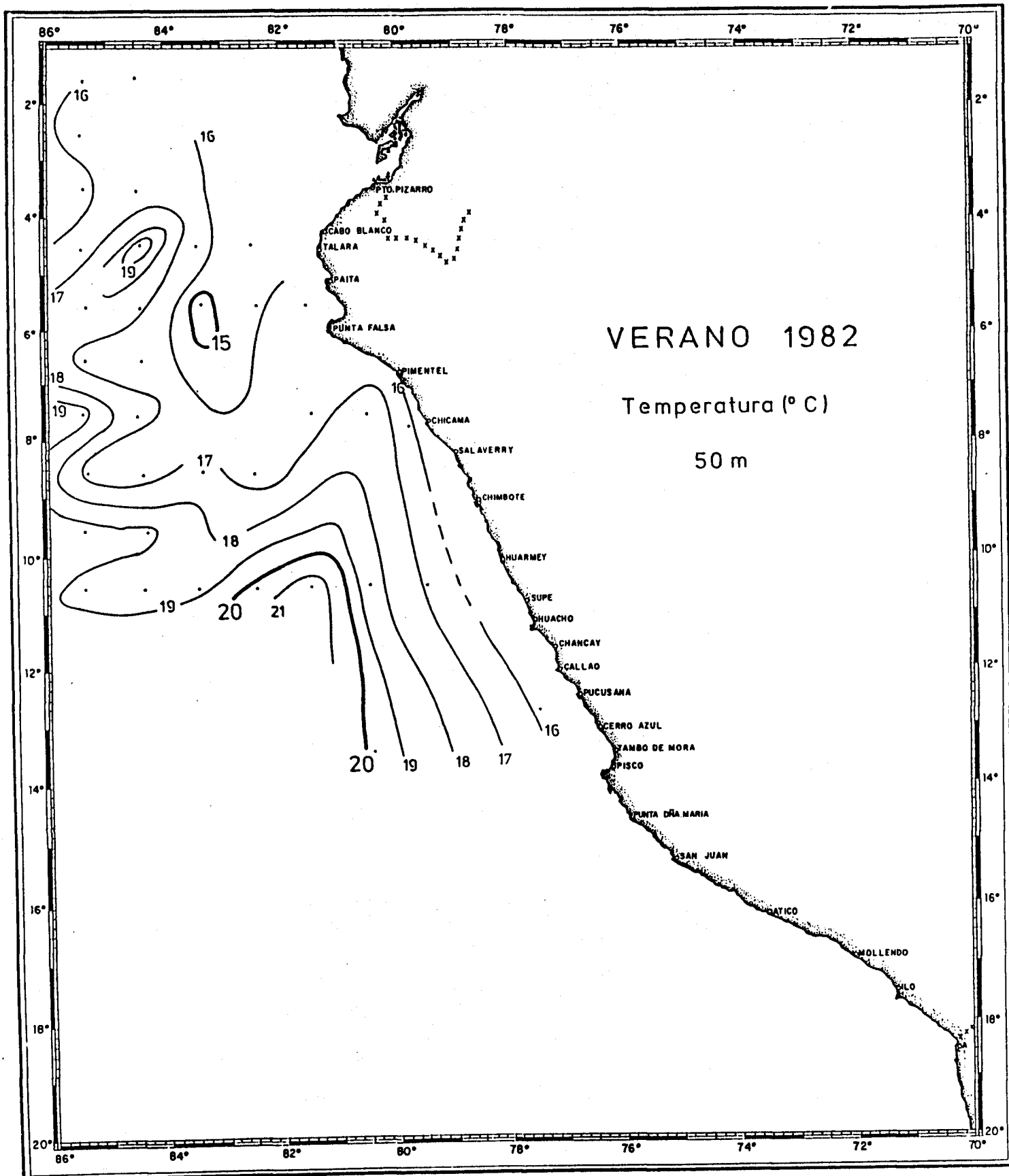
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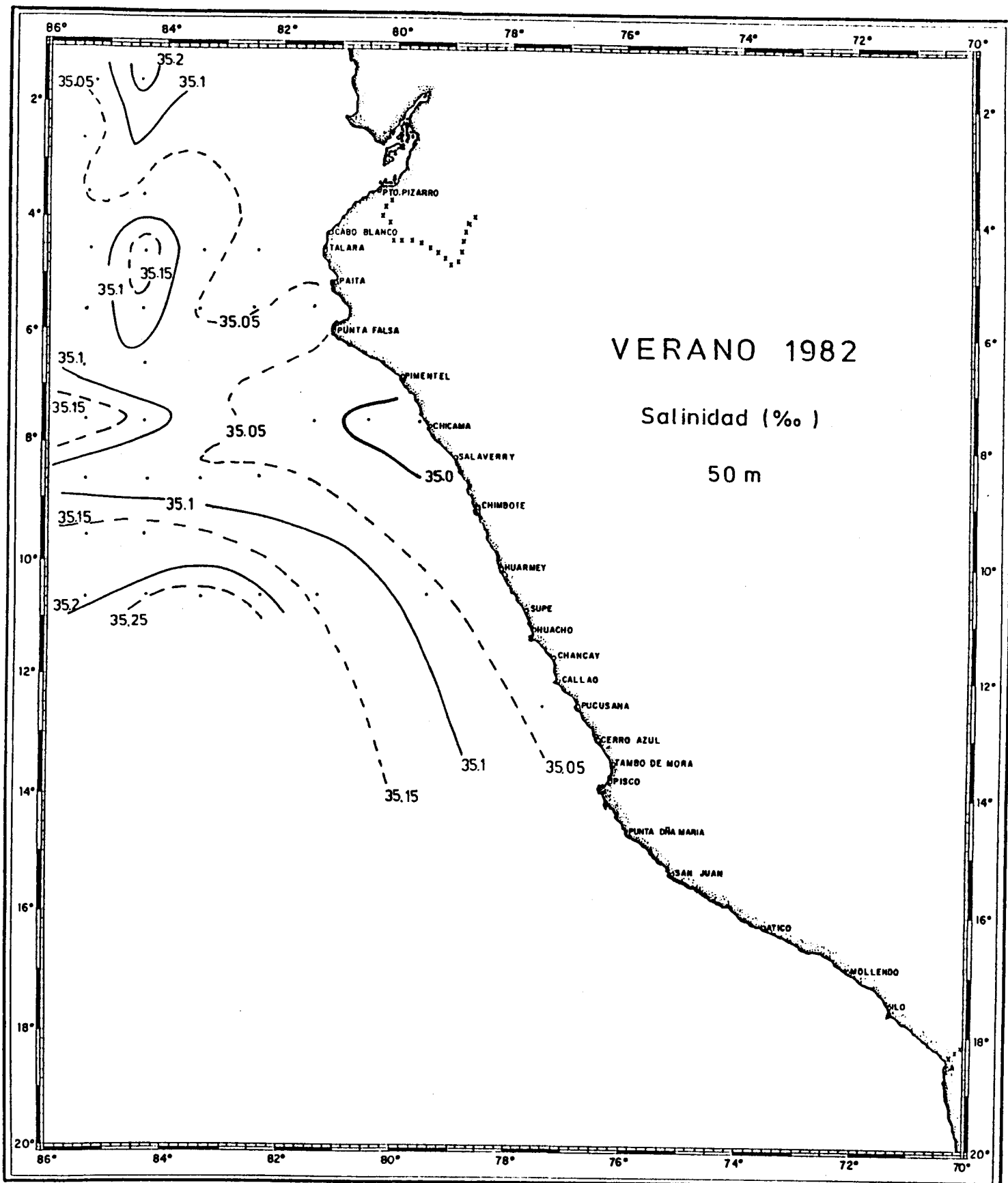
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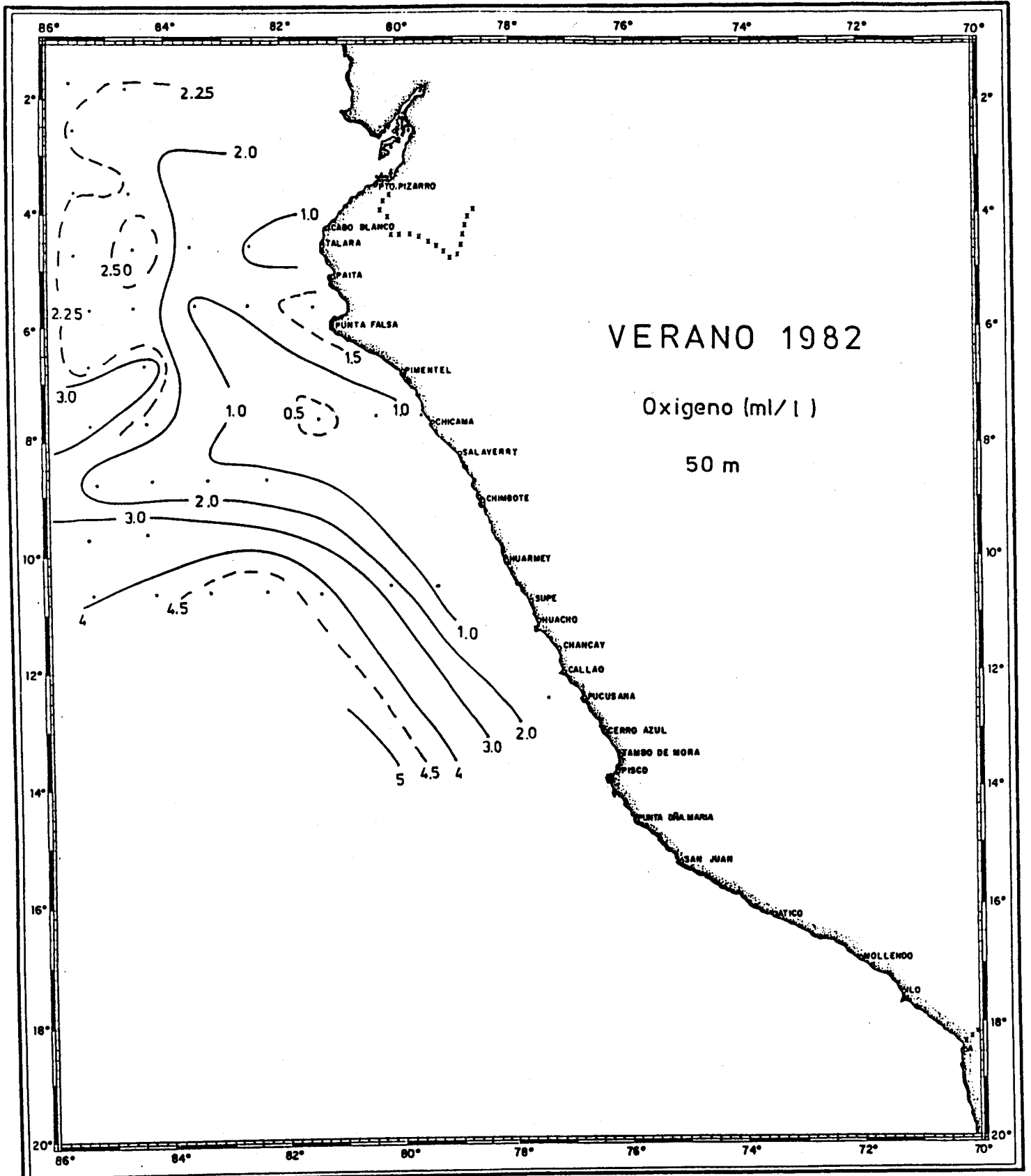


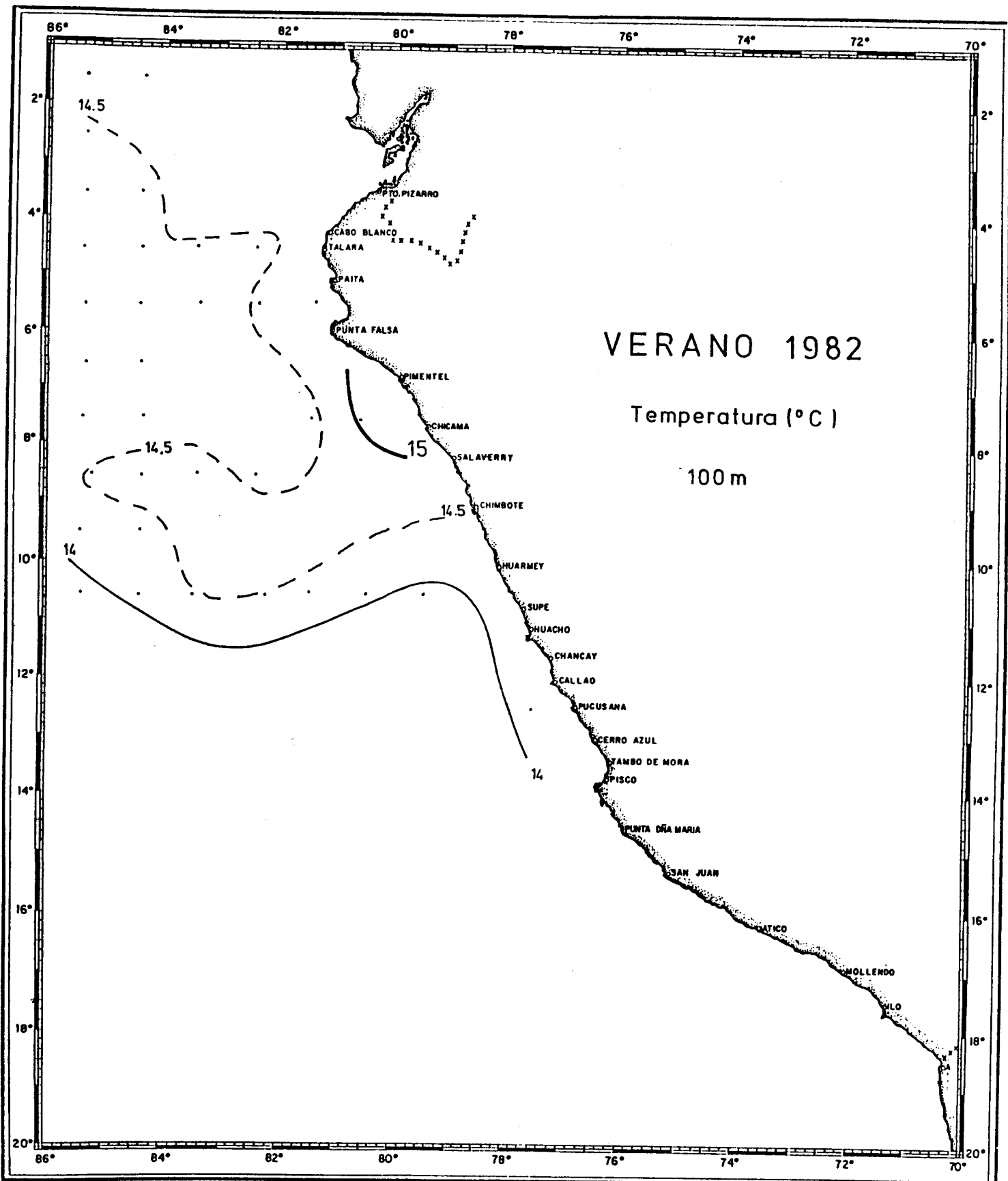


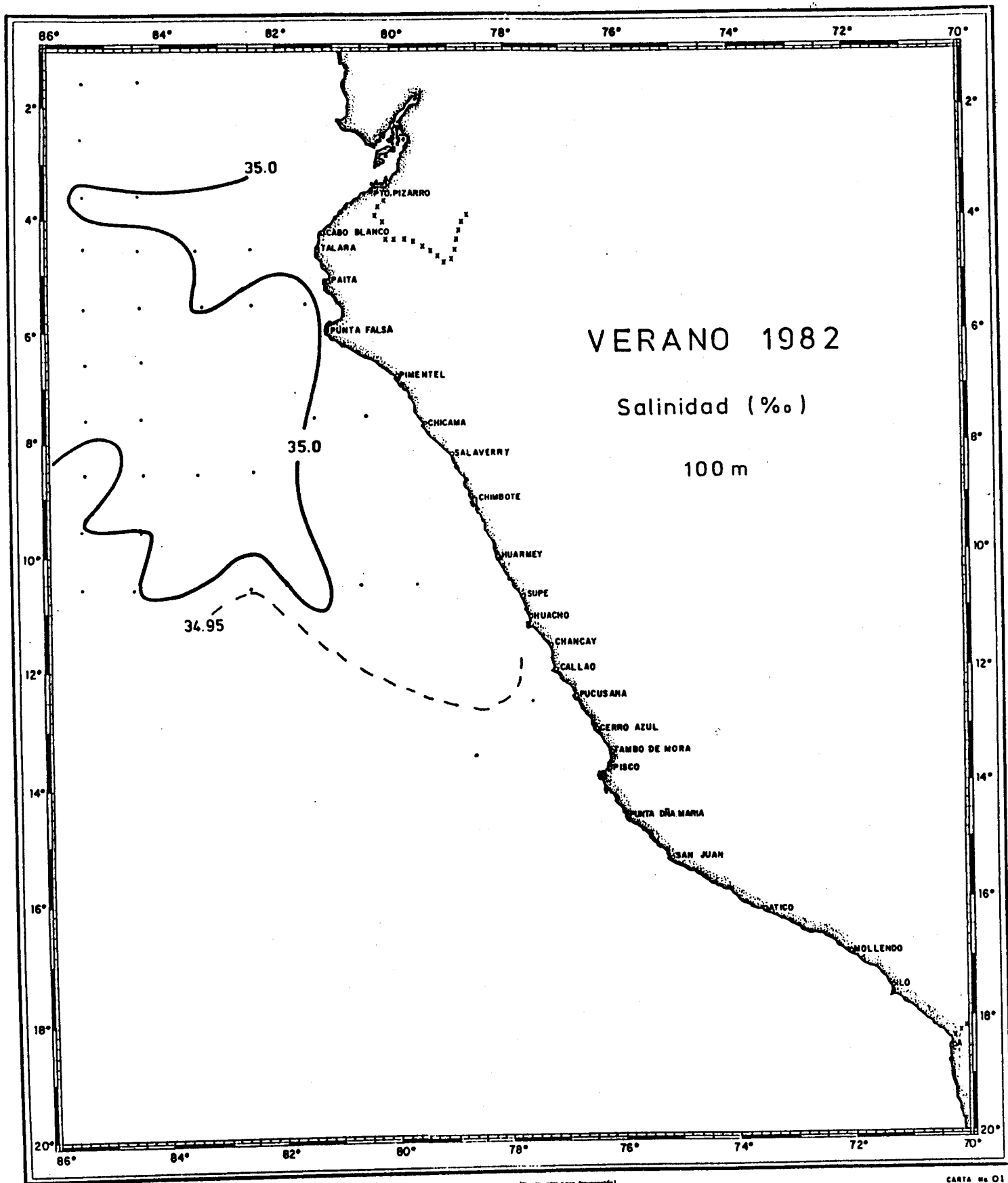


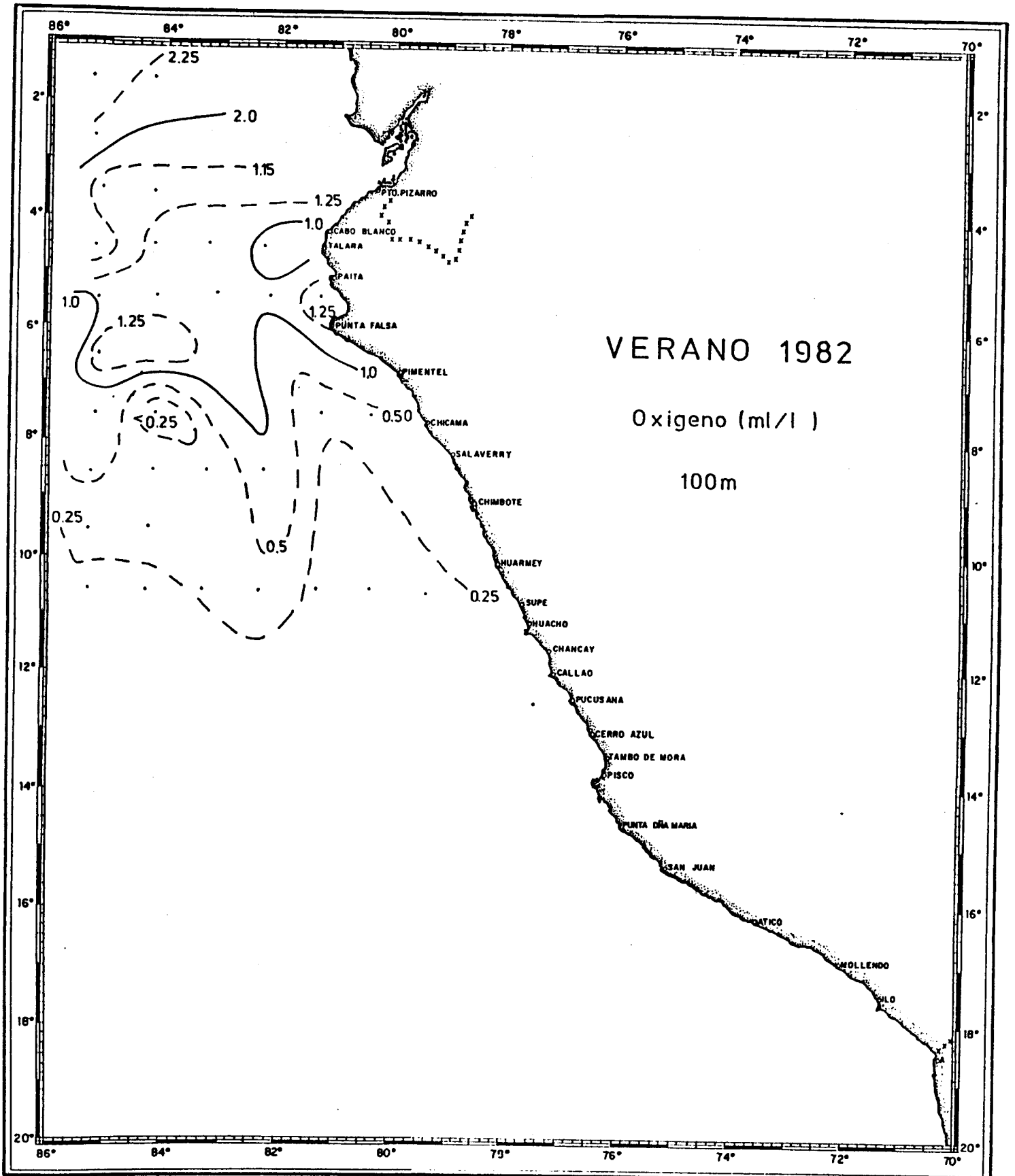


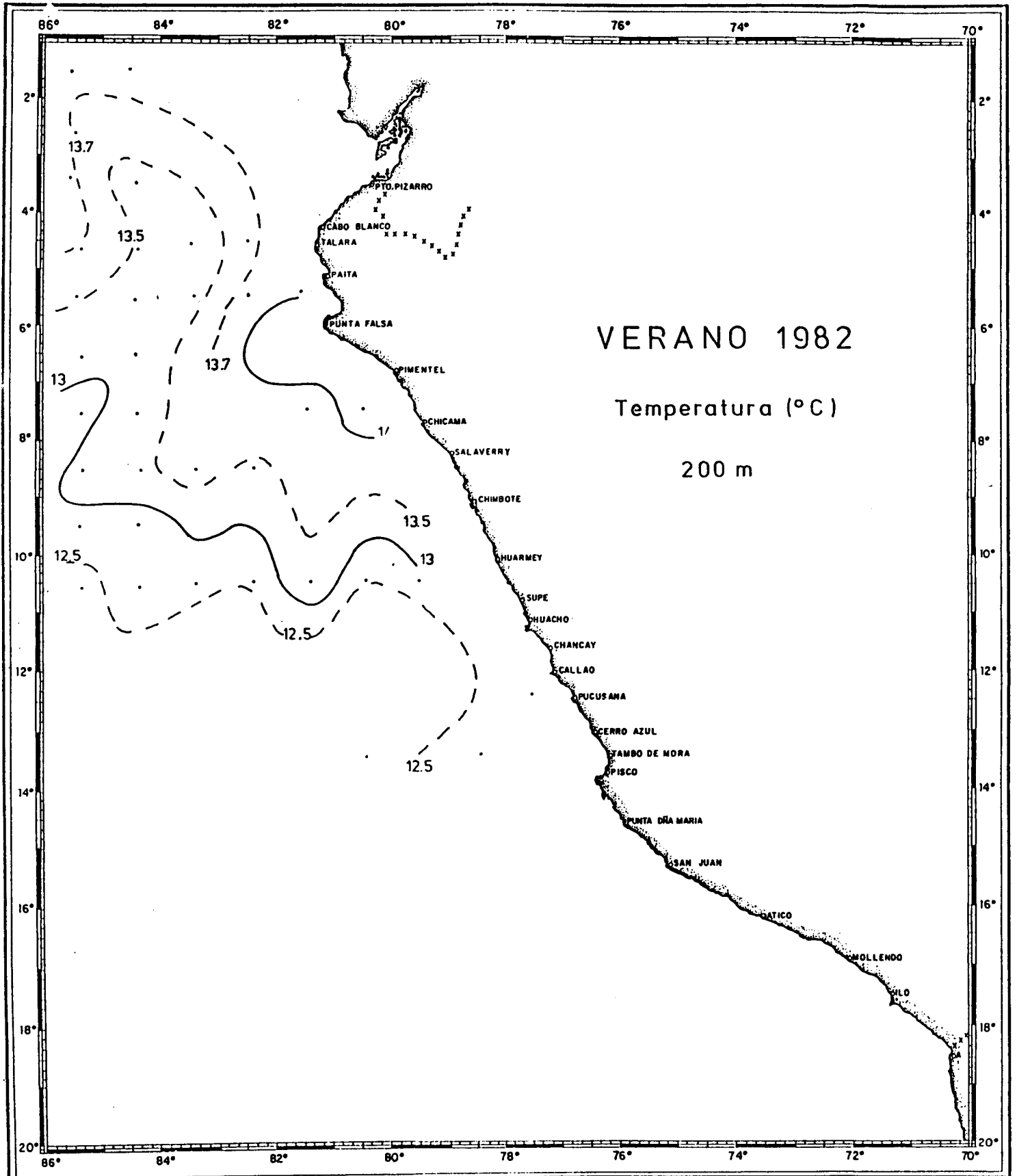








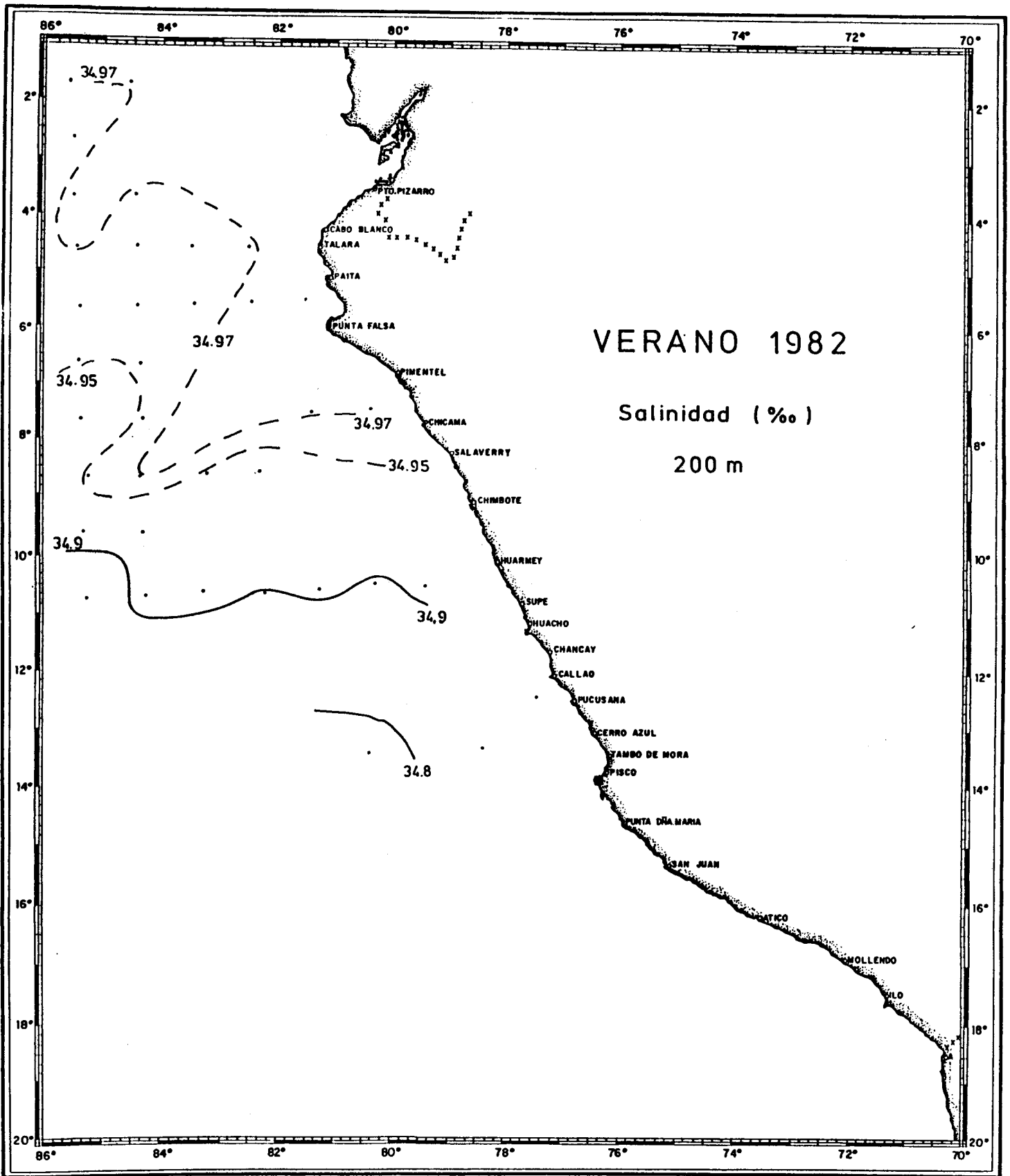


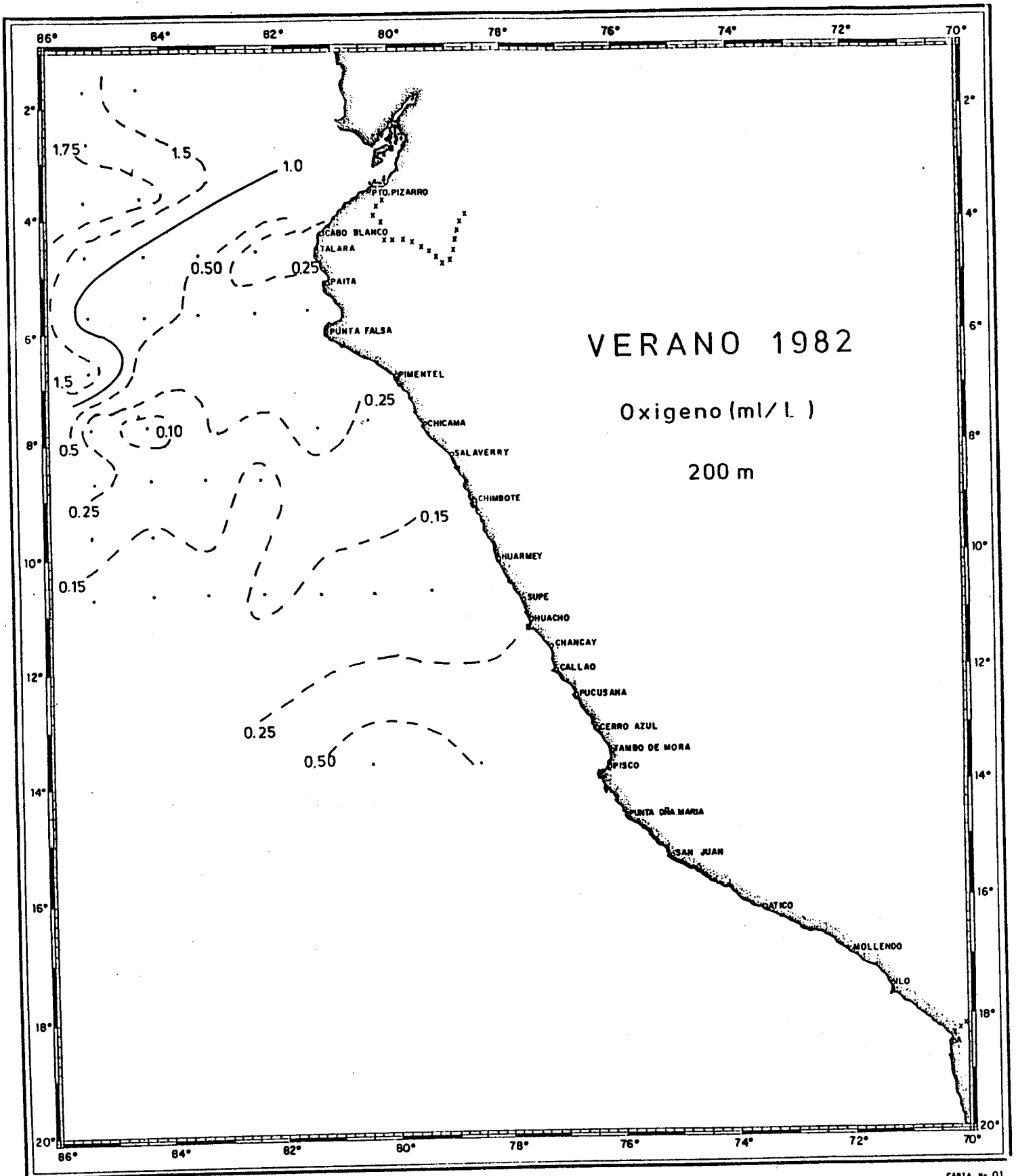


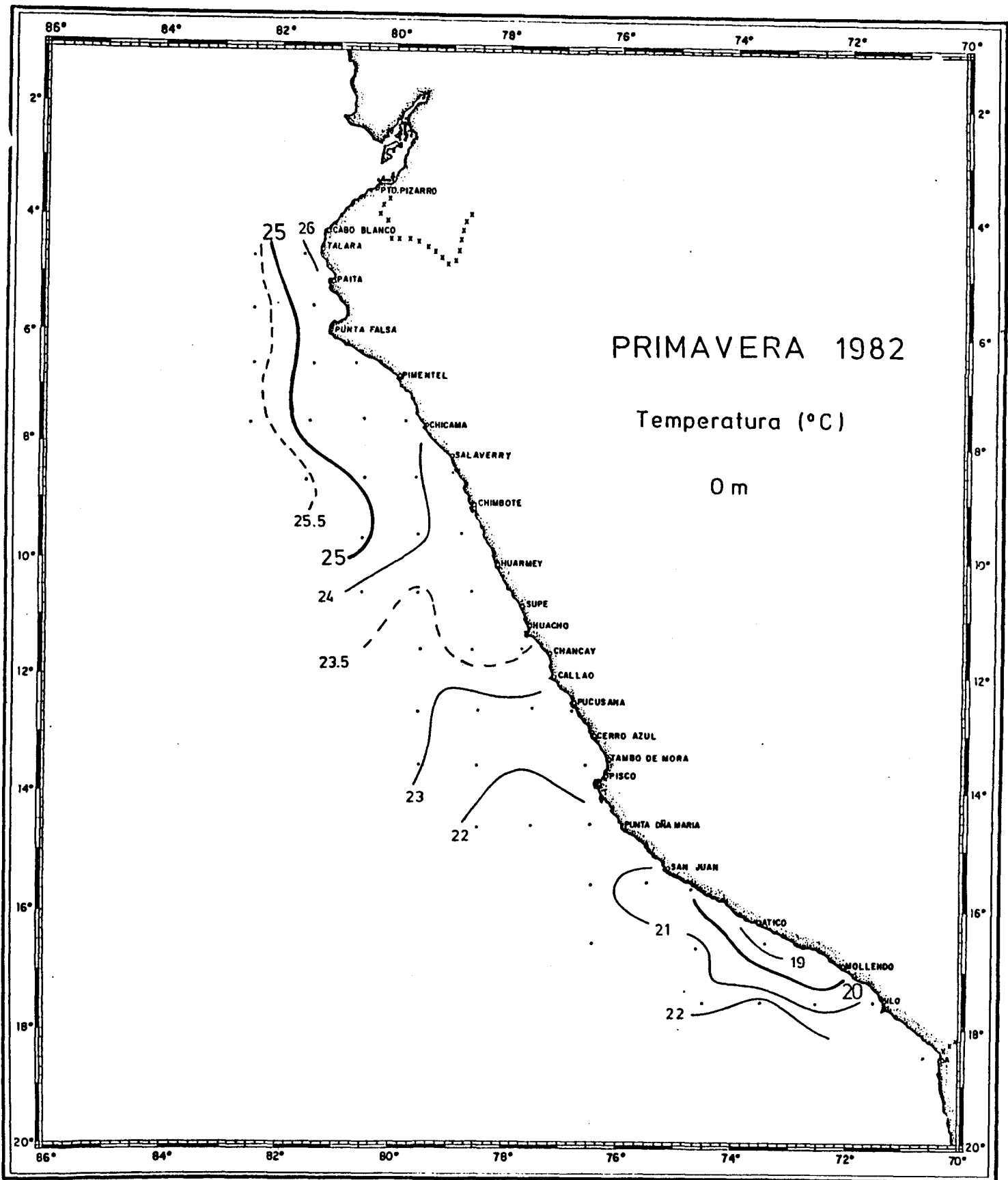
VERANO 1982

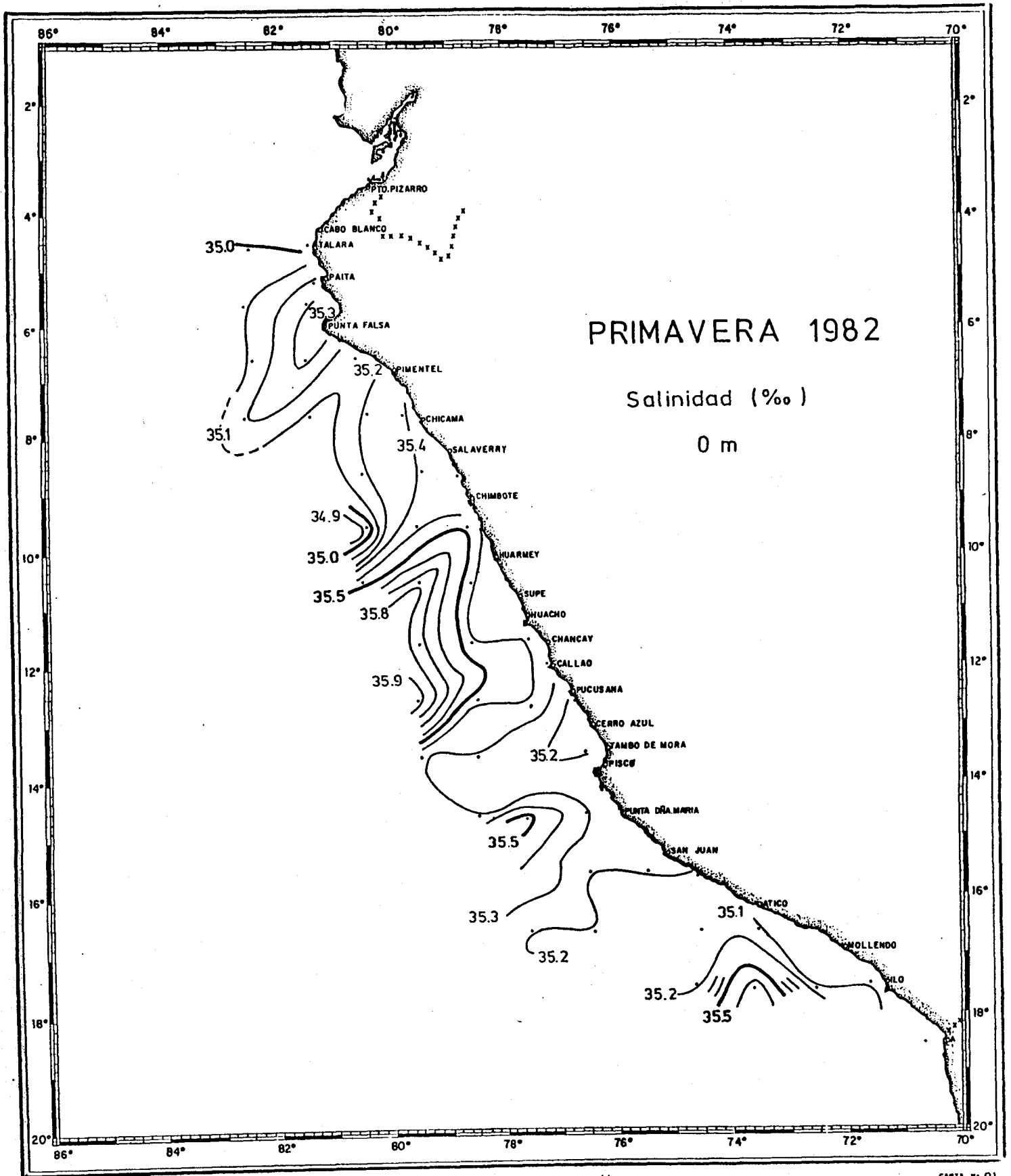
Temperatura (°C)

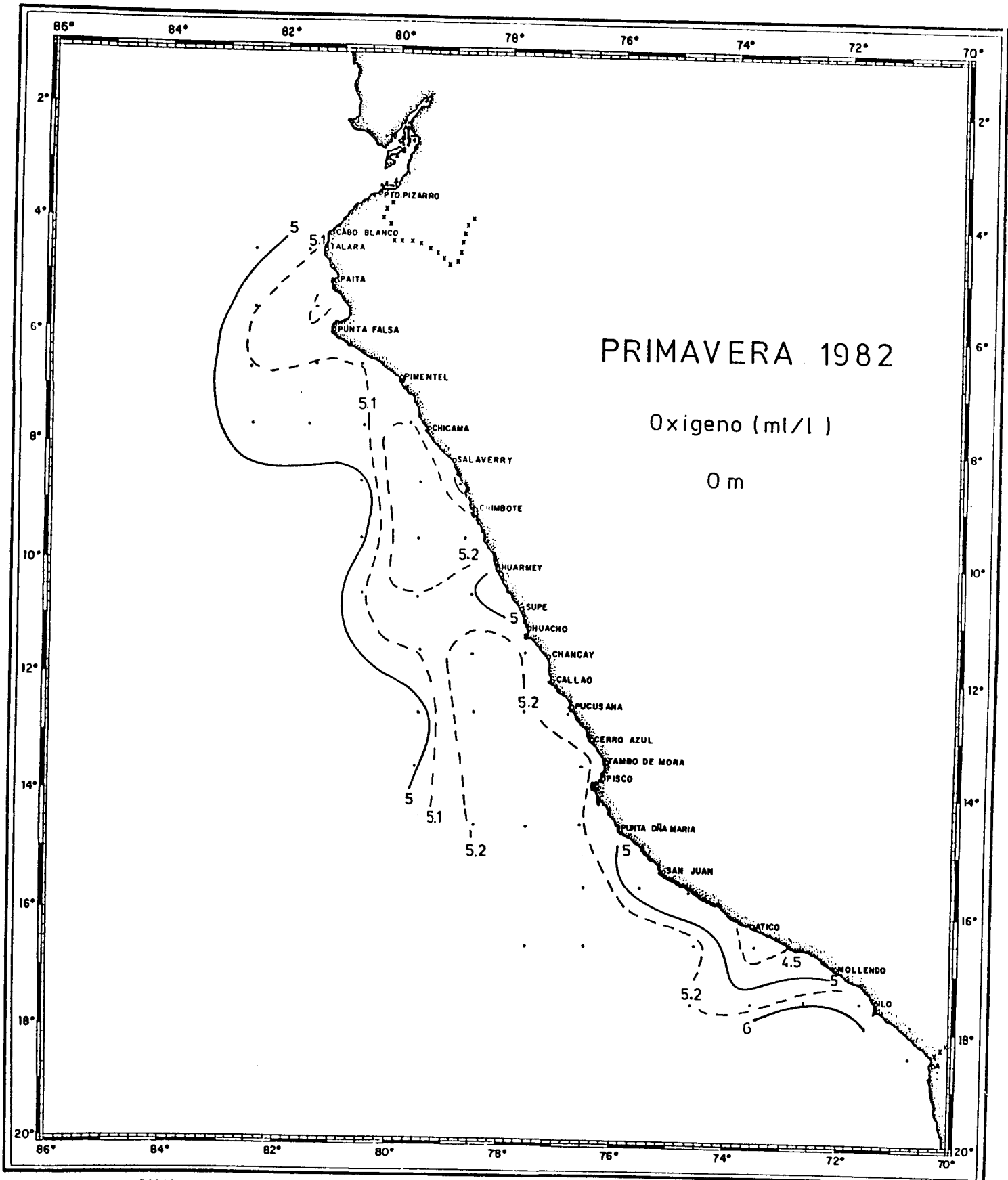
200 m

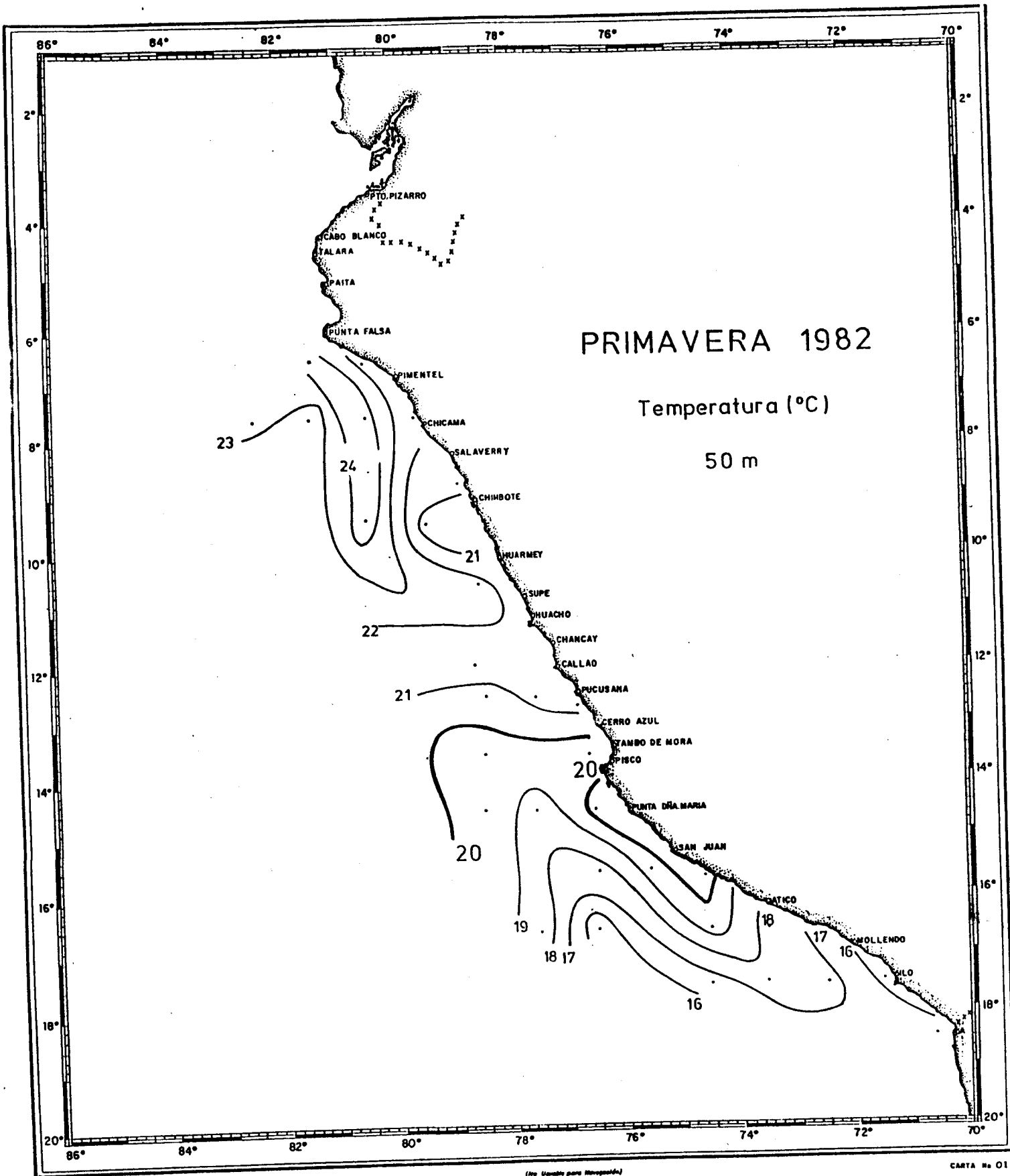


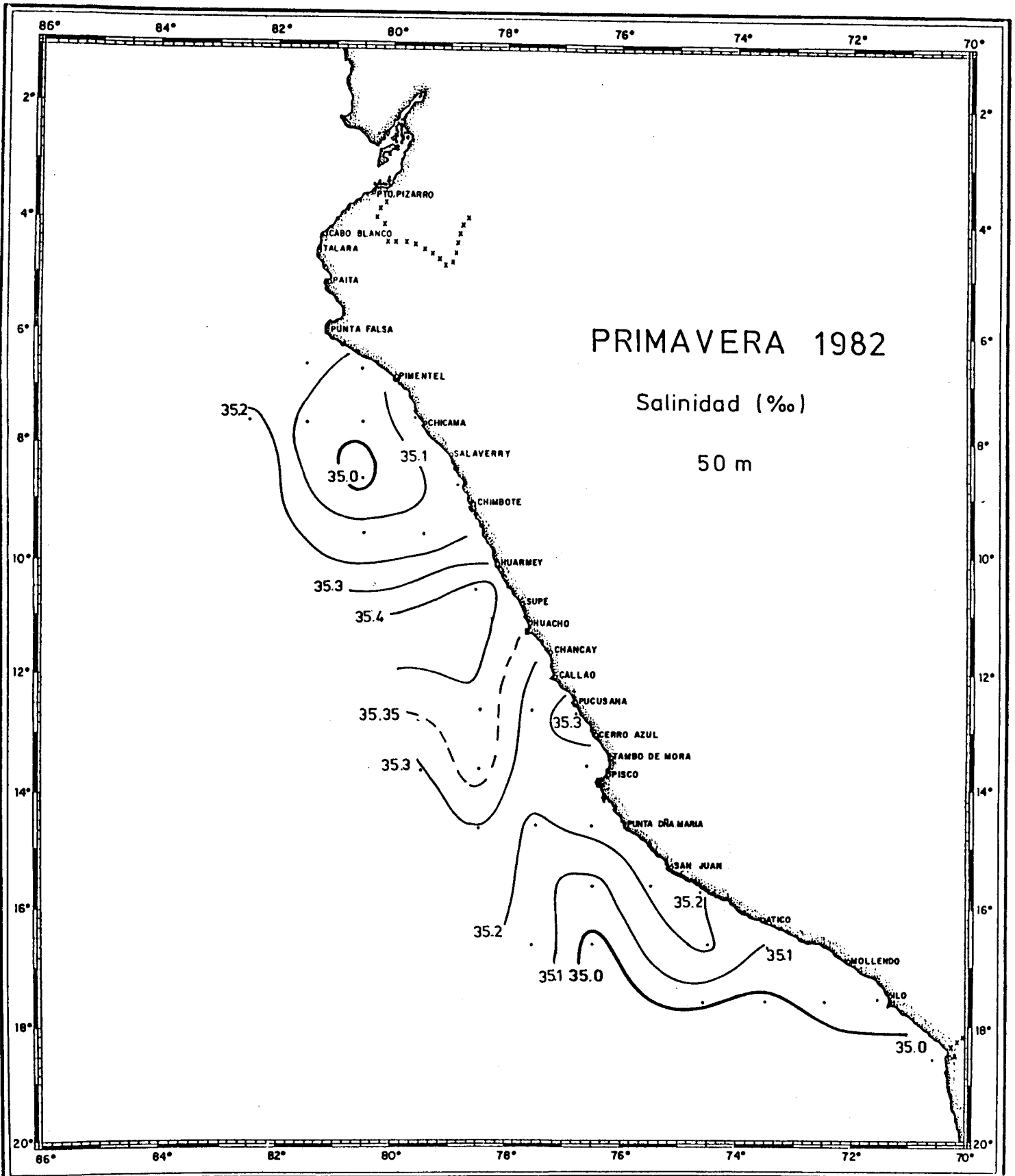


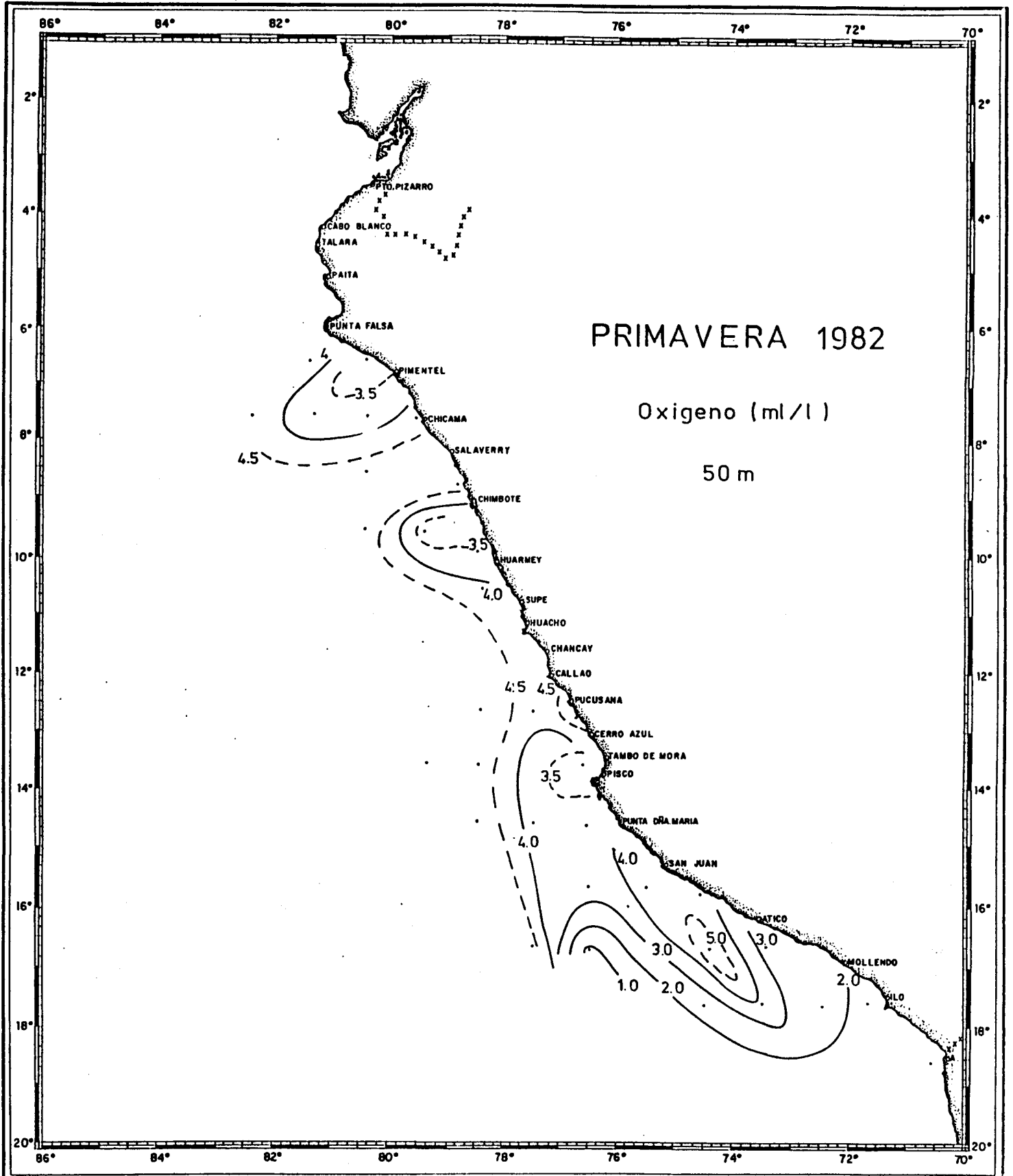


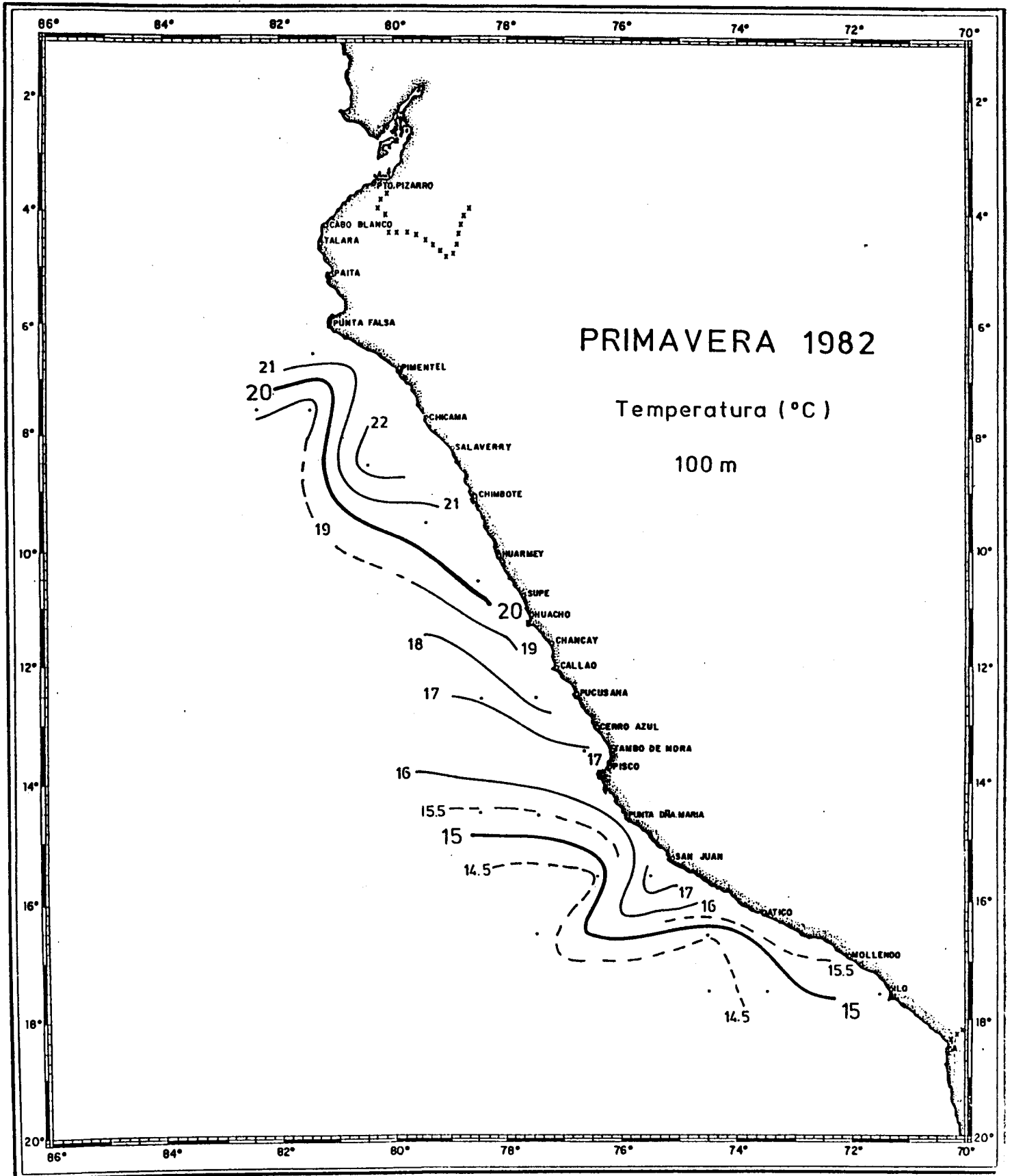


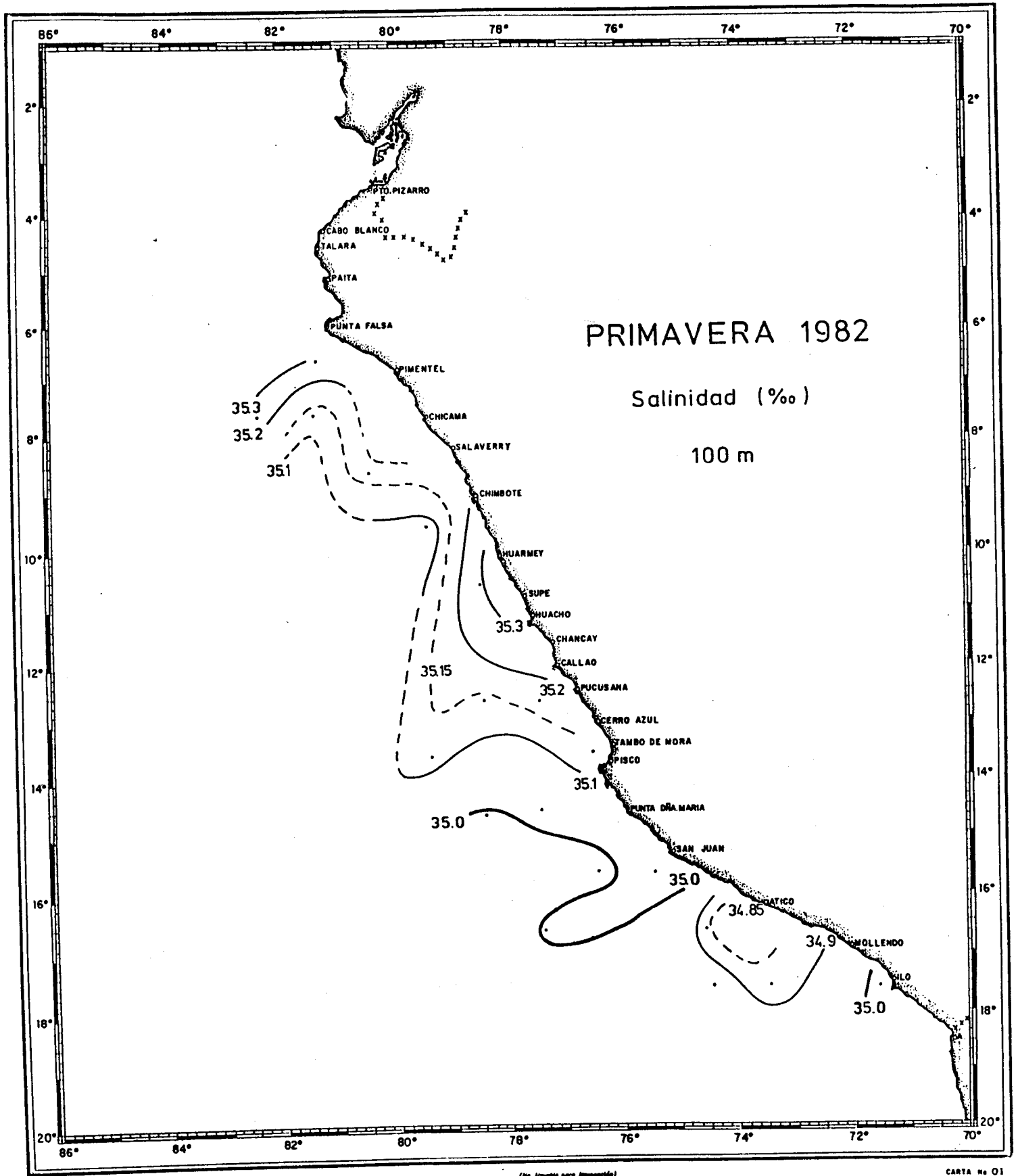


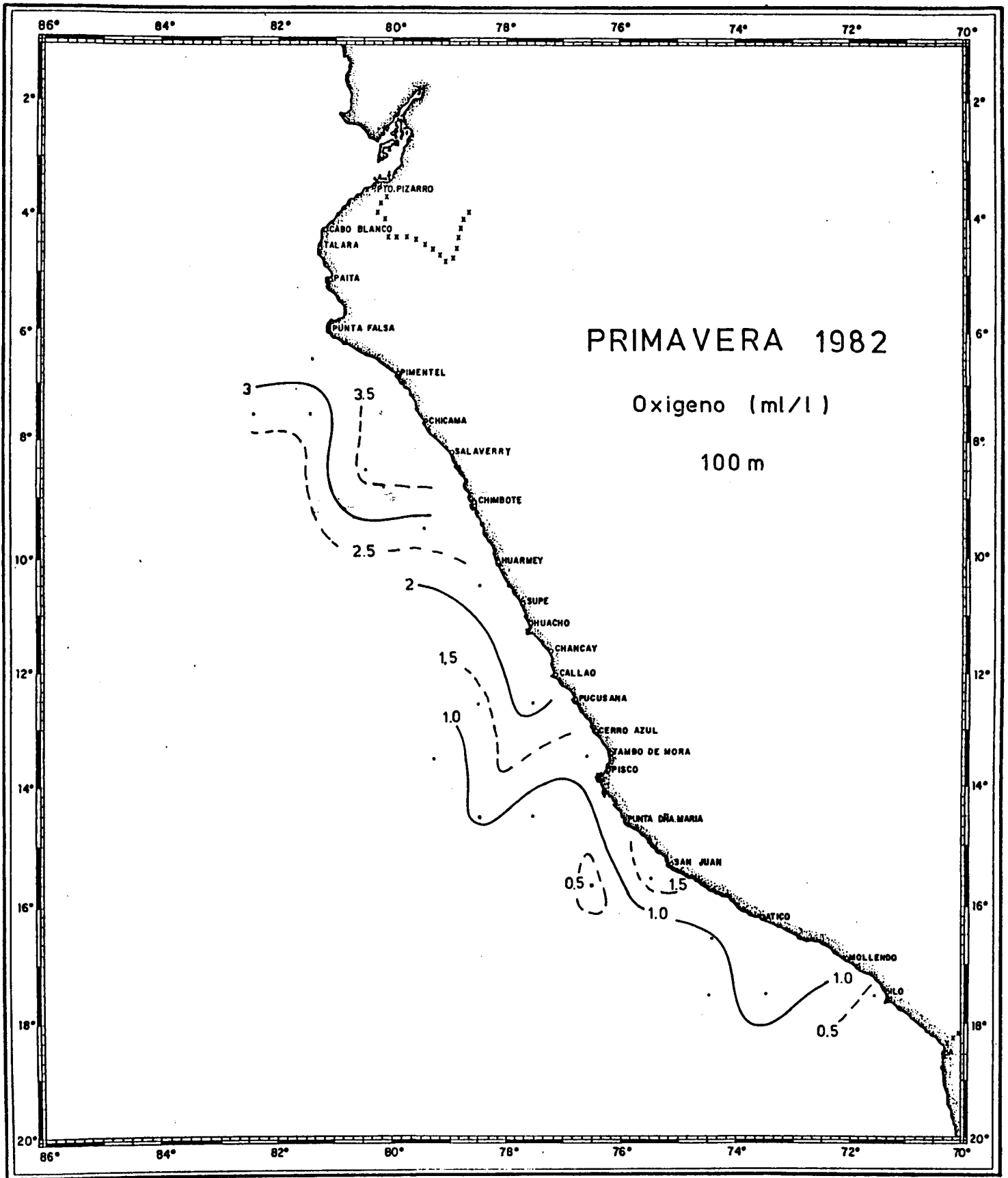


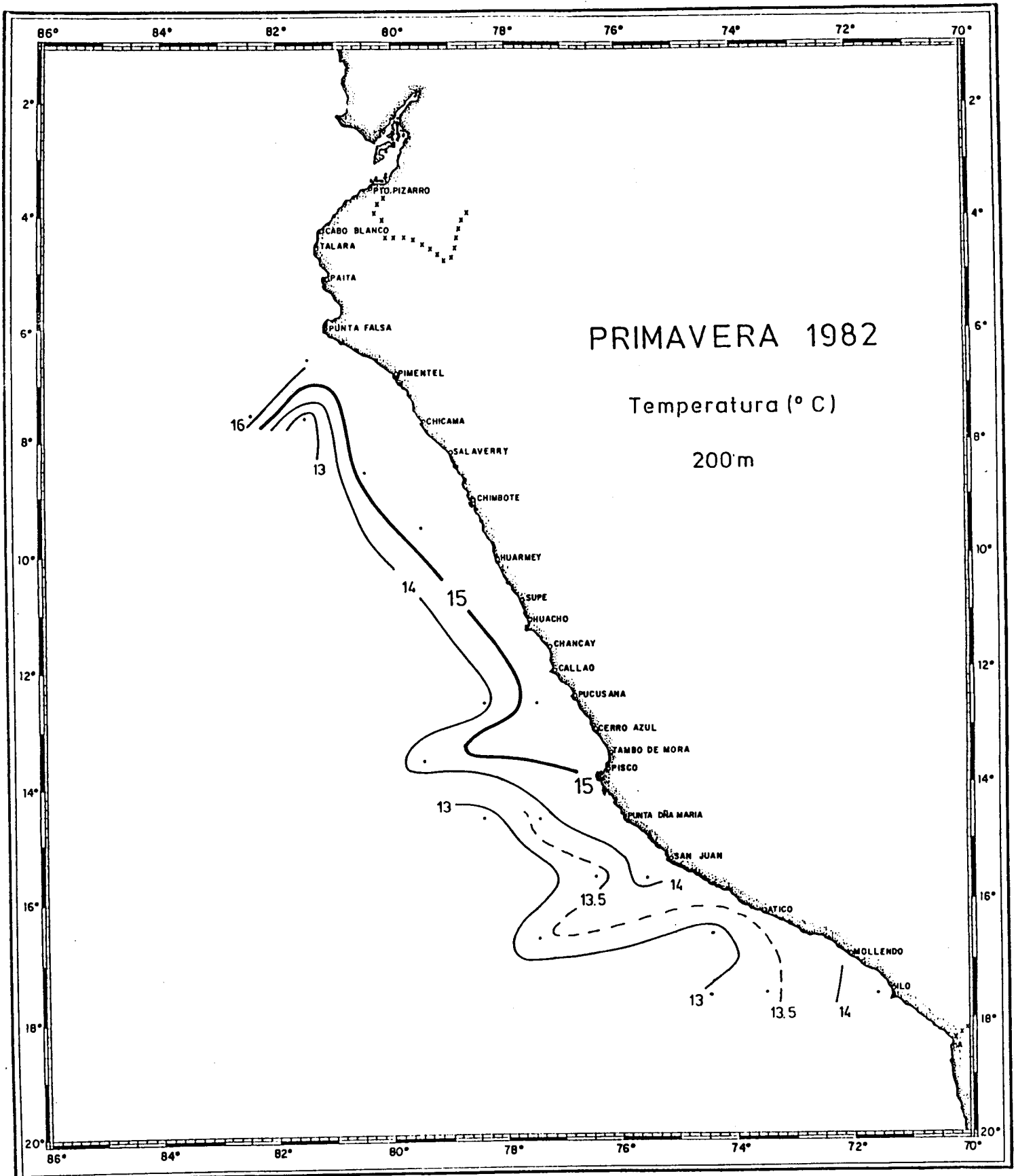


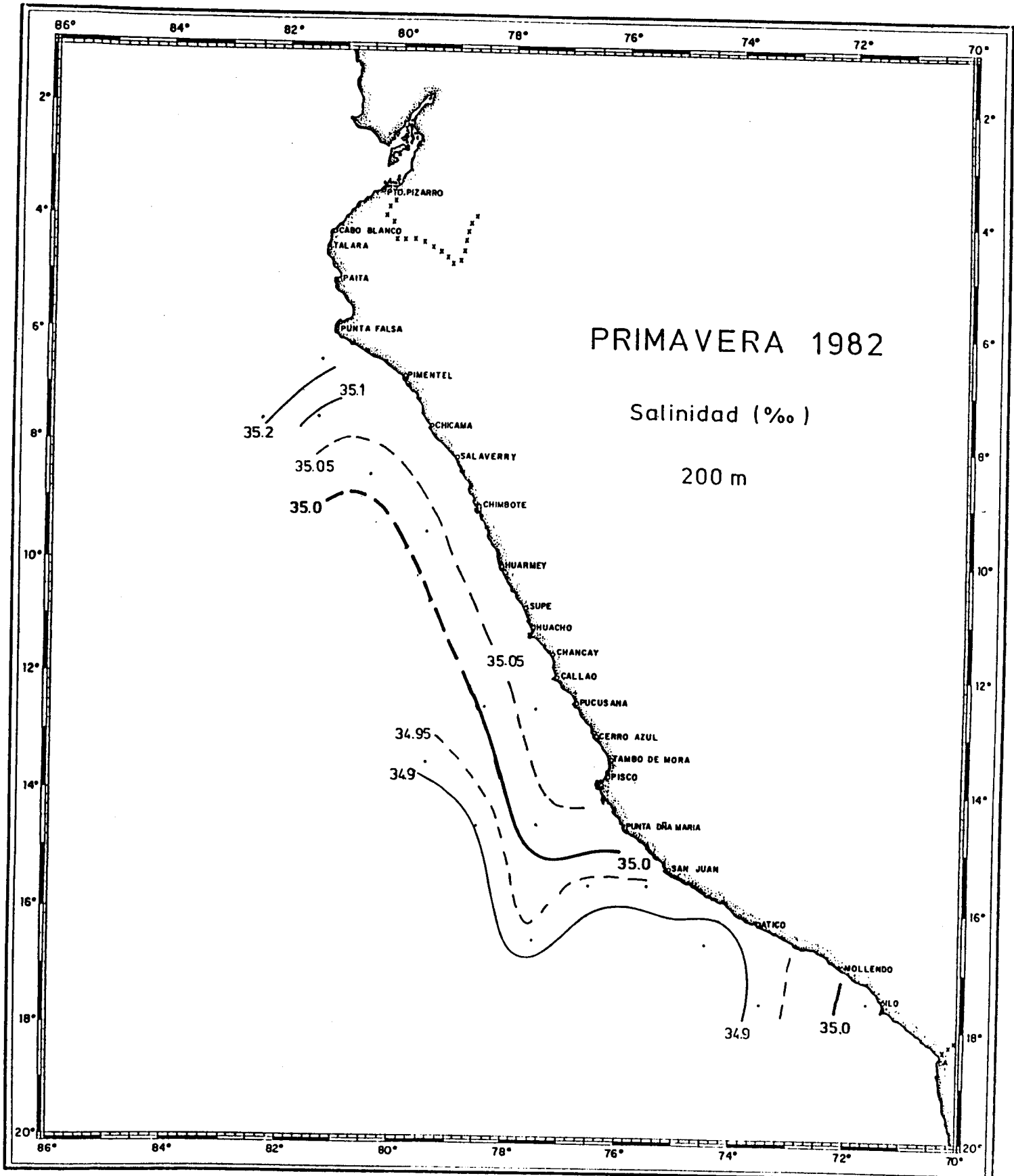










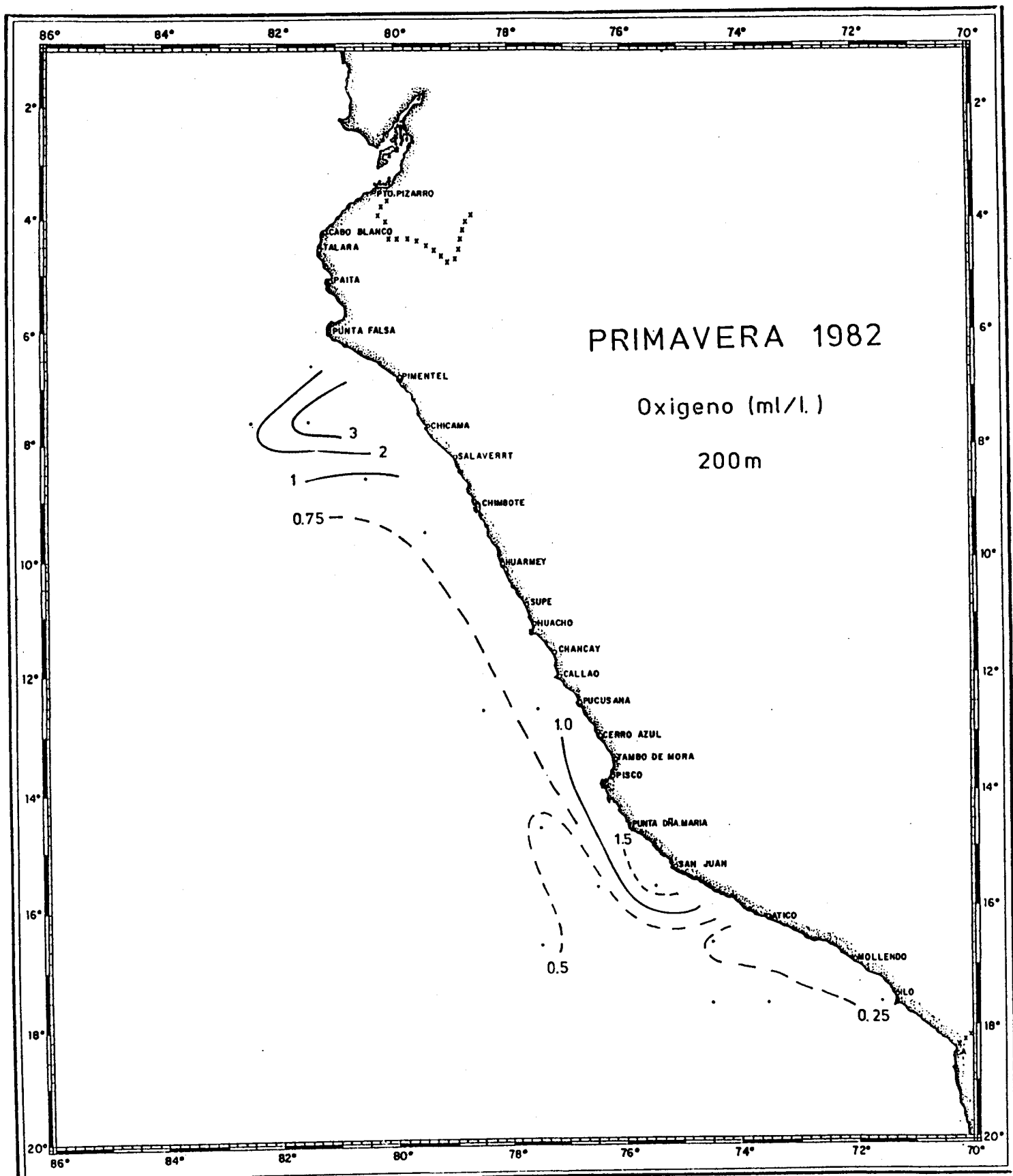


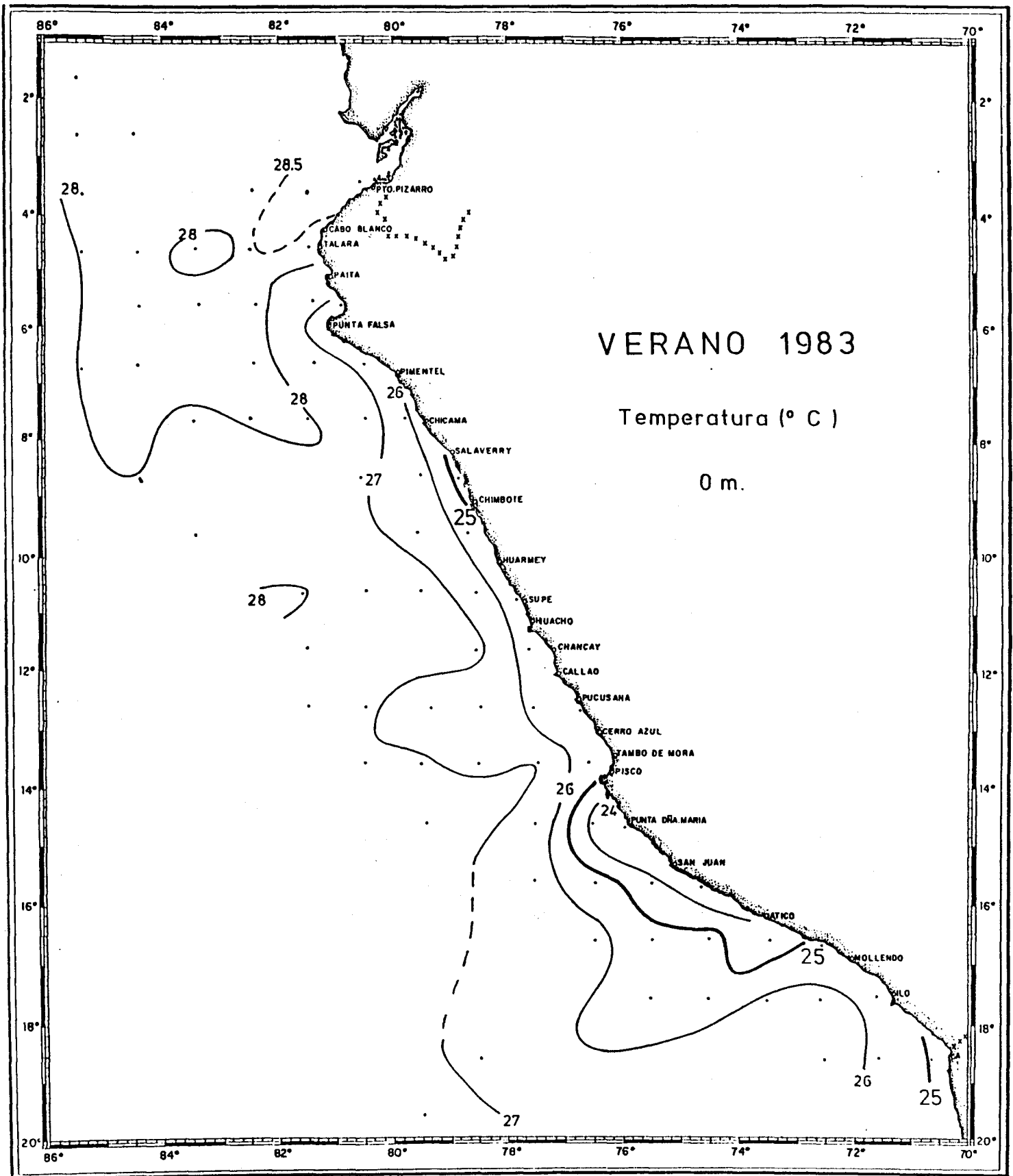
INSTITUTO DEL MAR

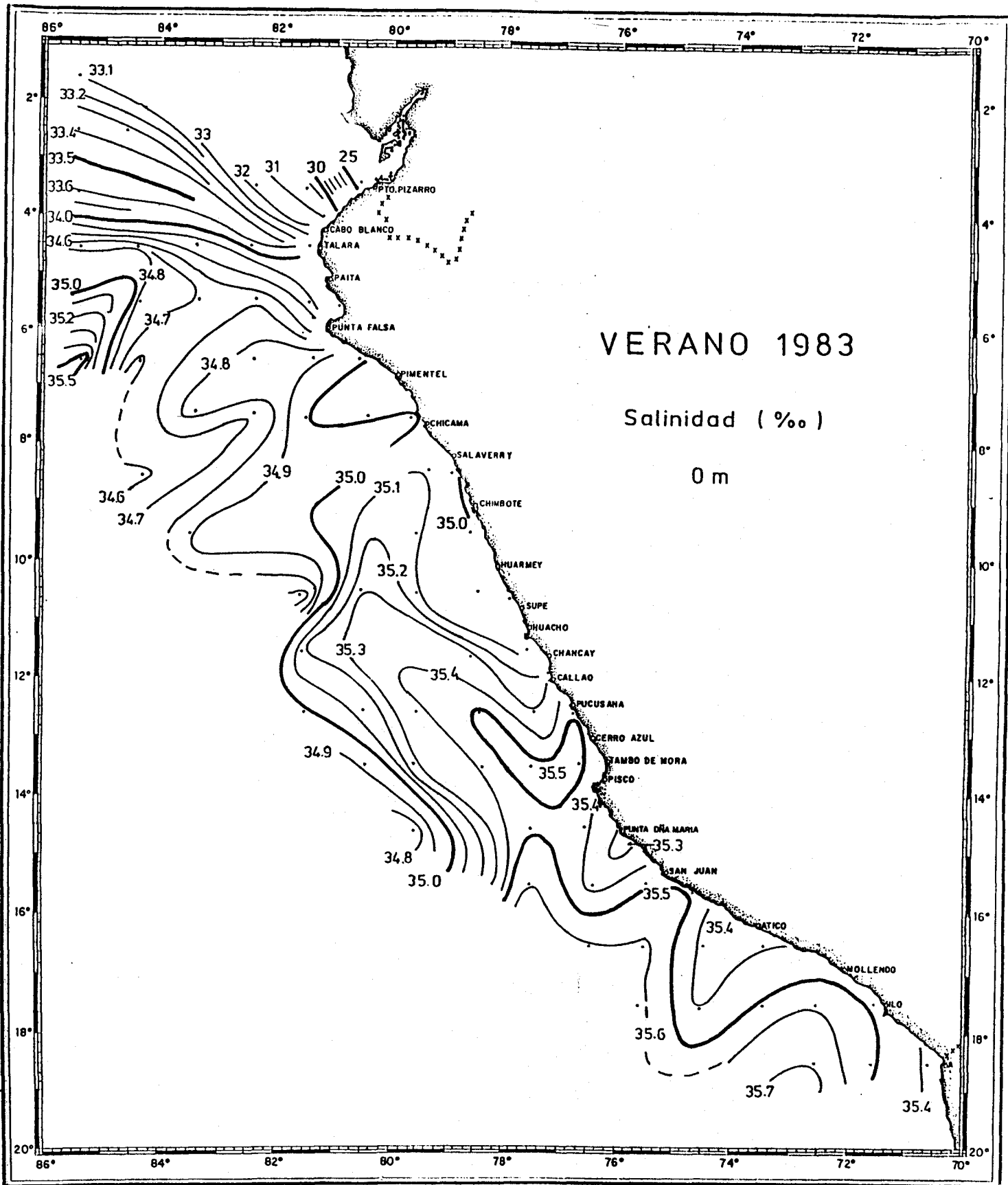
DAPSO

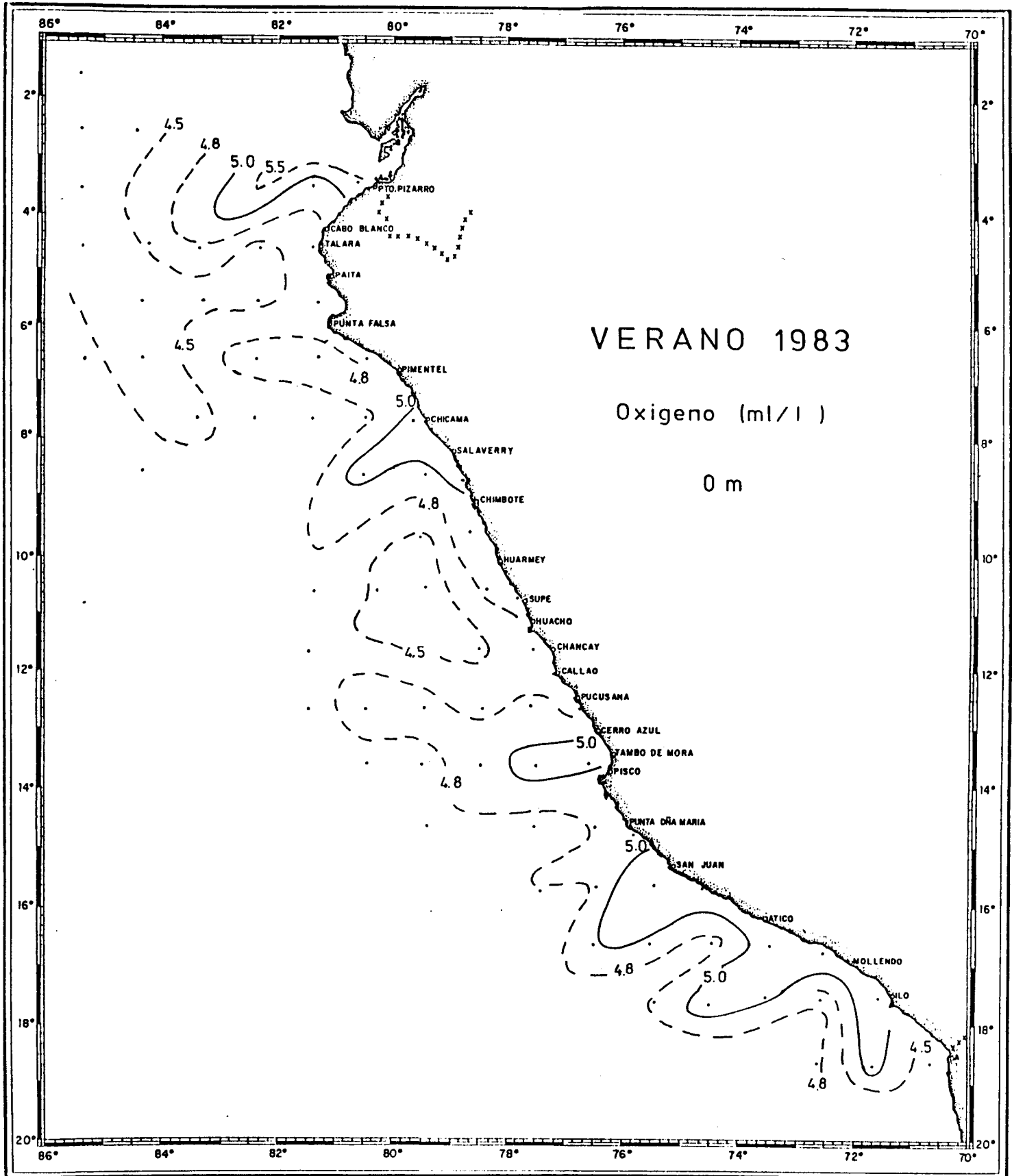
(No Usado para Navegación)

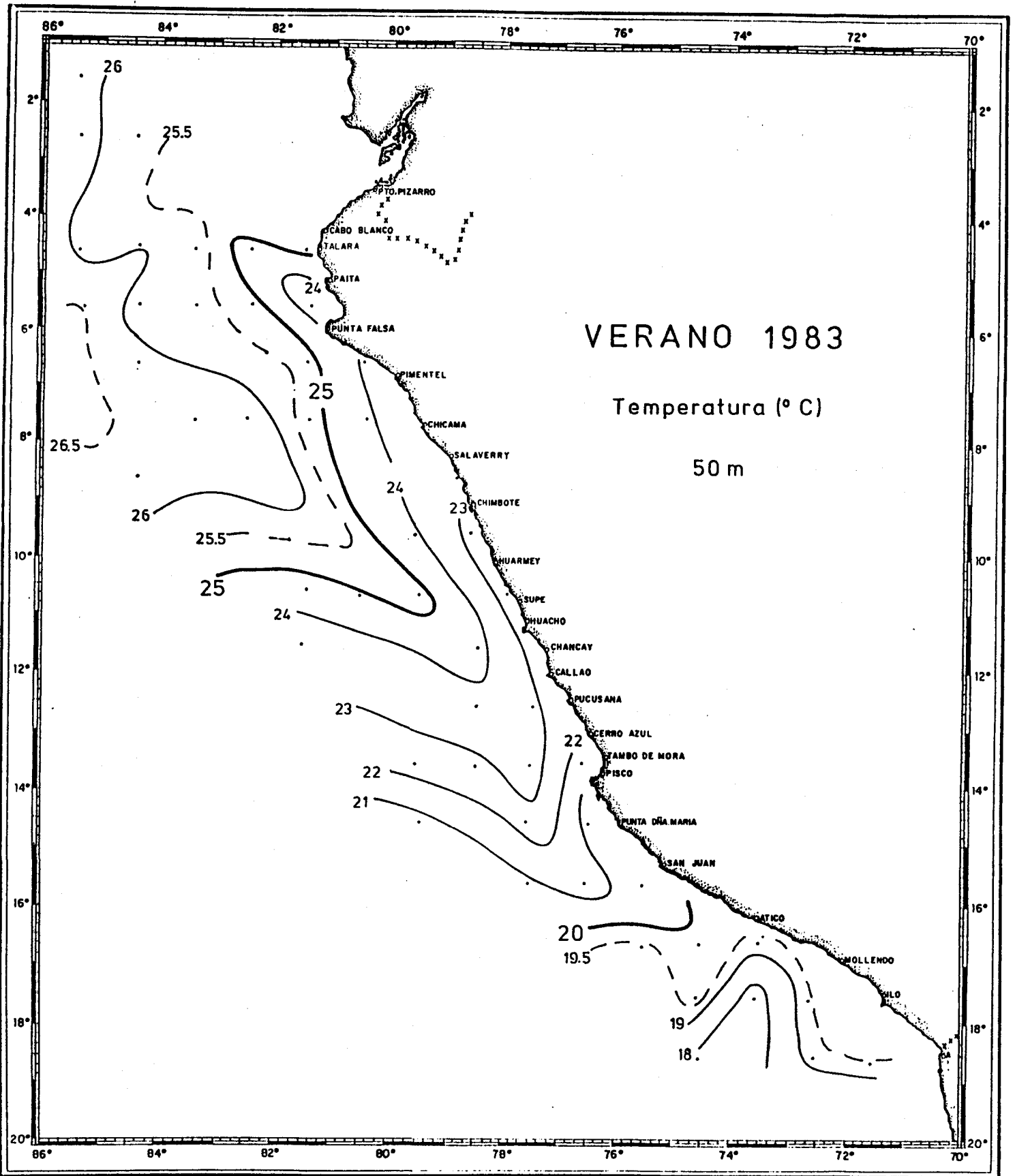
CARTA No. 01

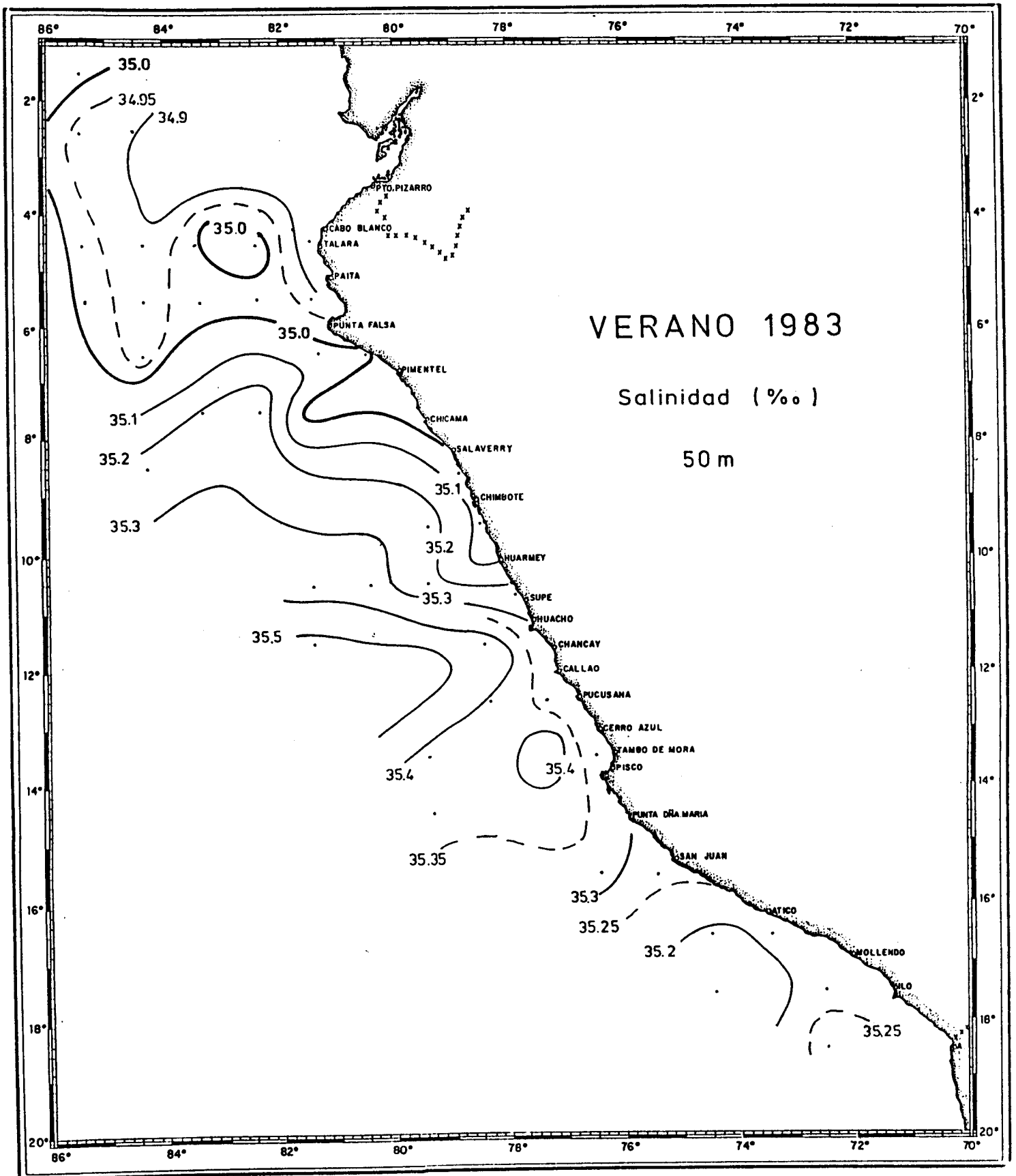


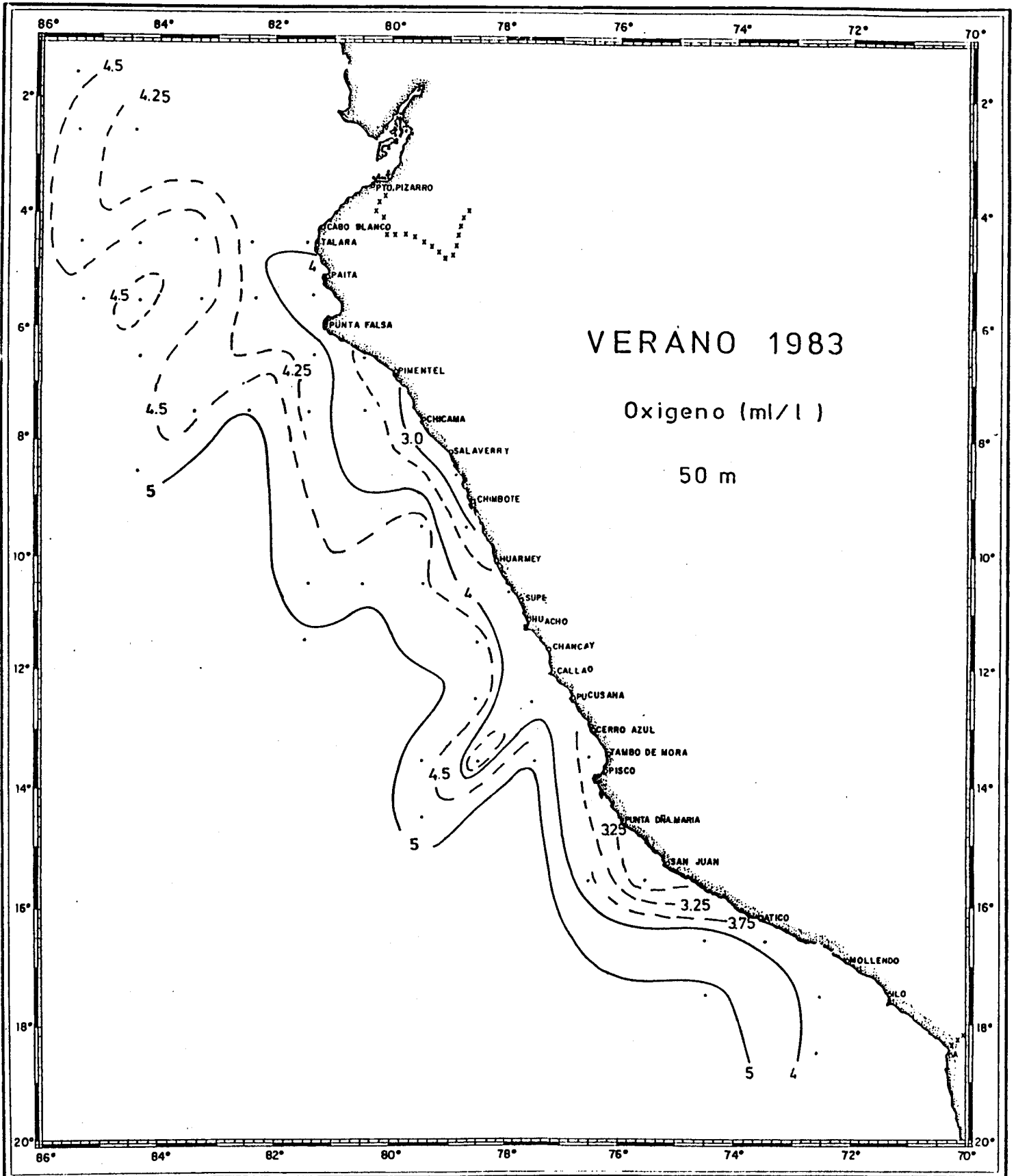


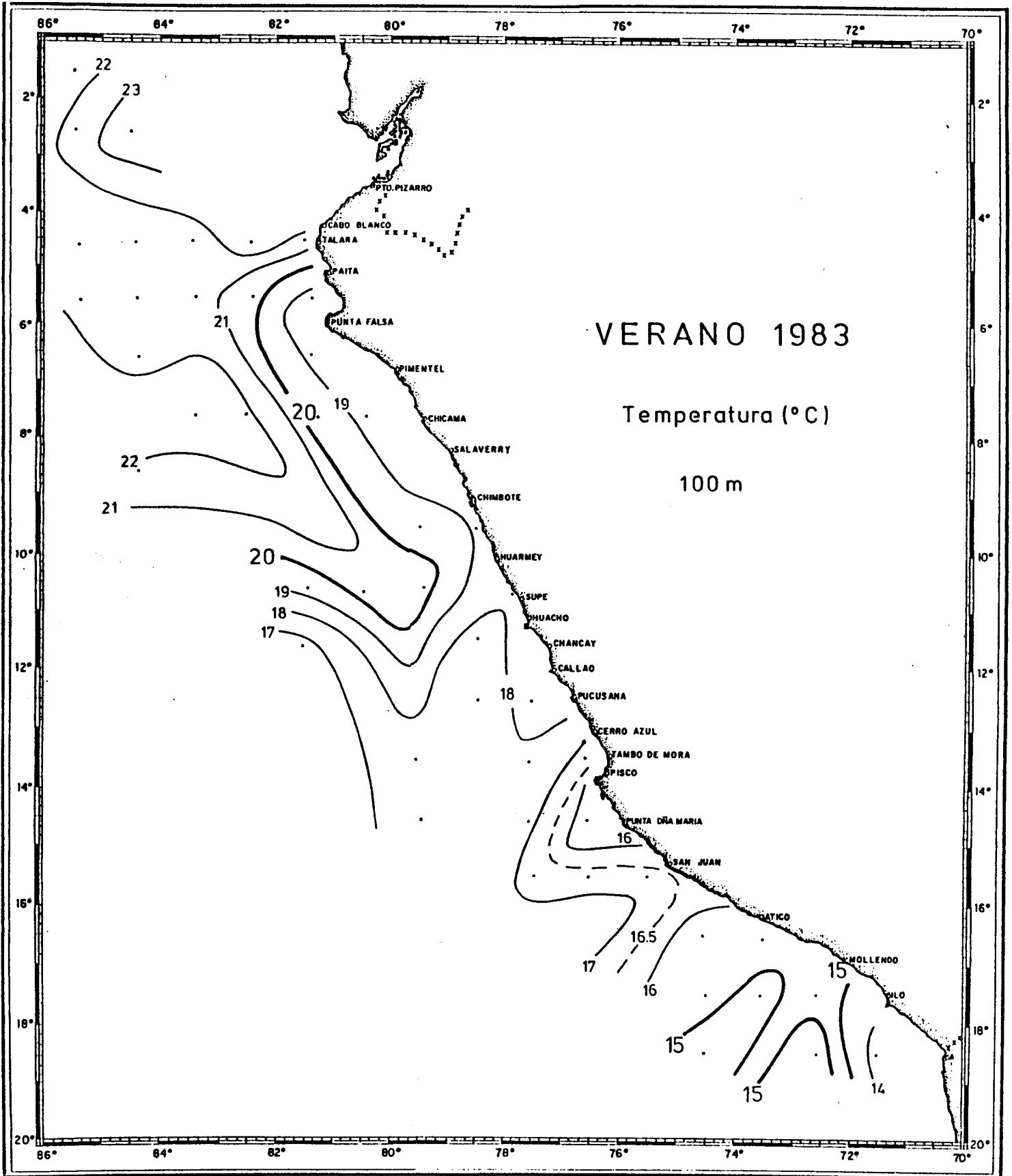


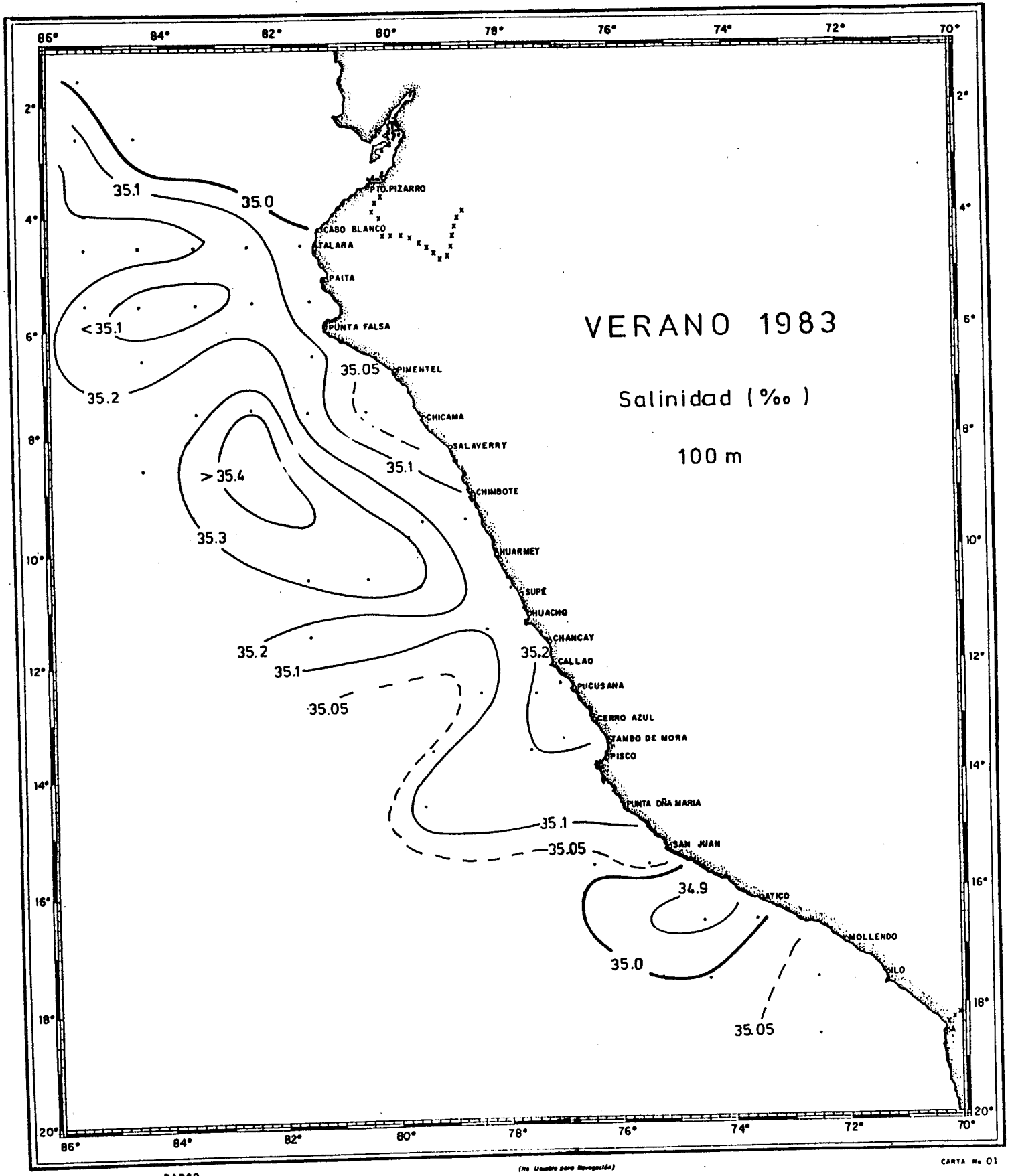


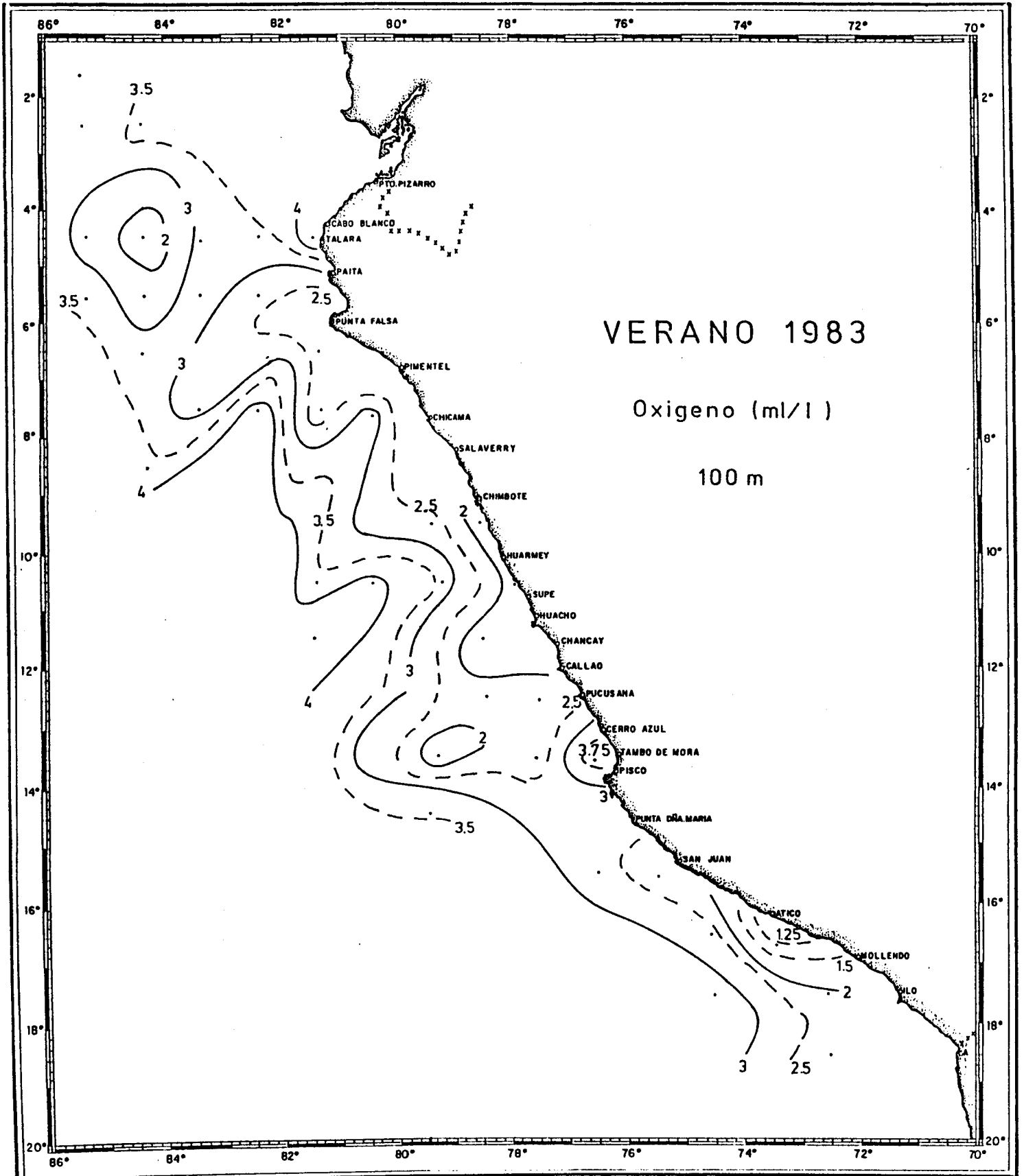


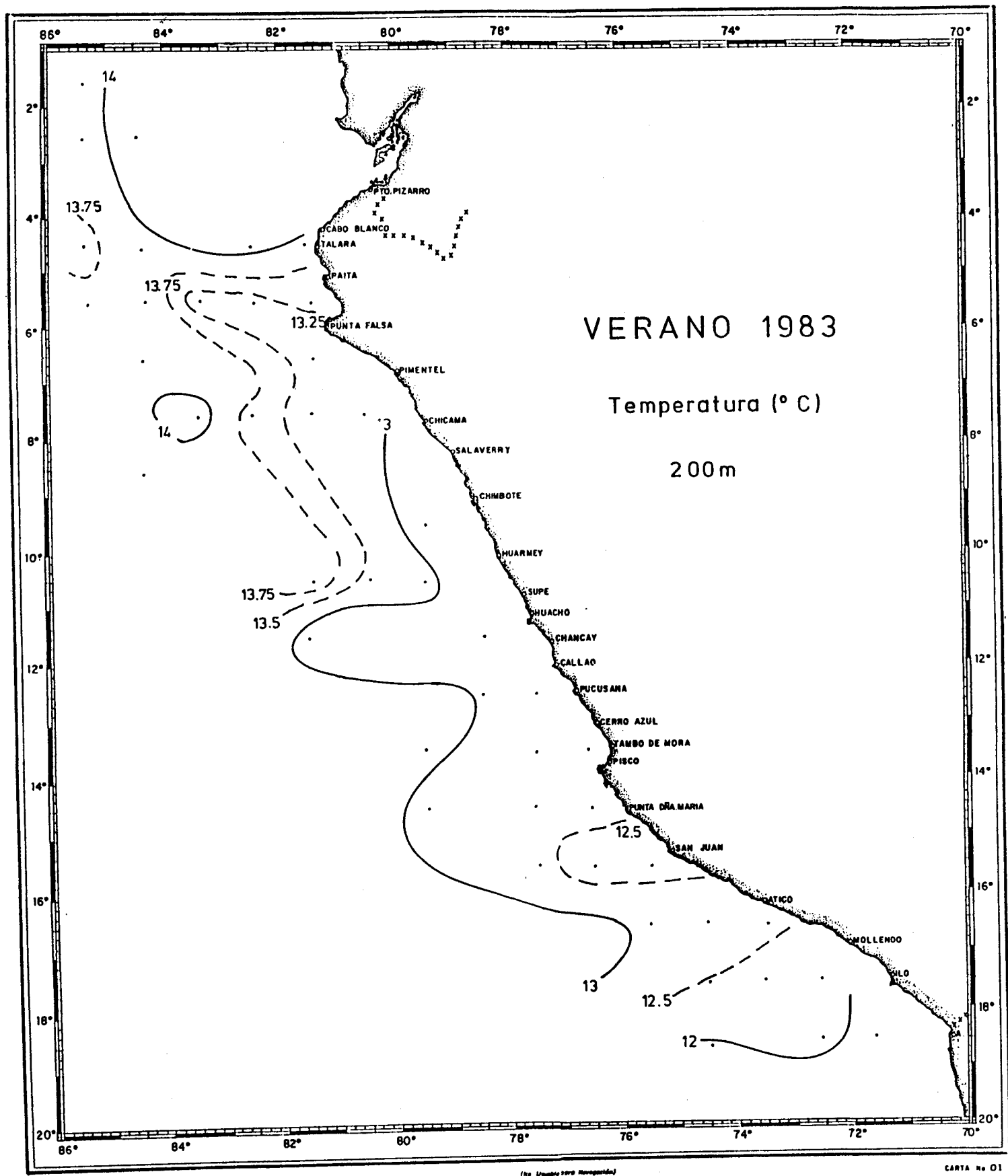


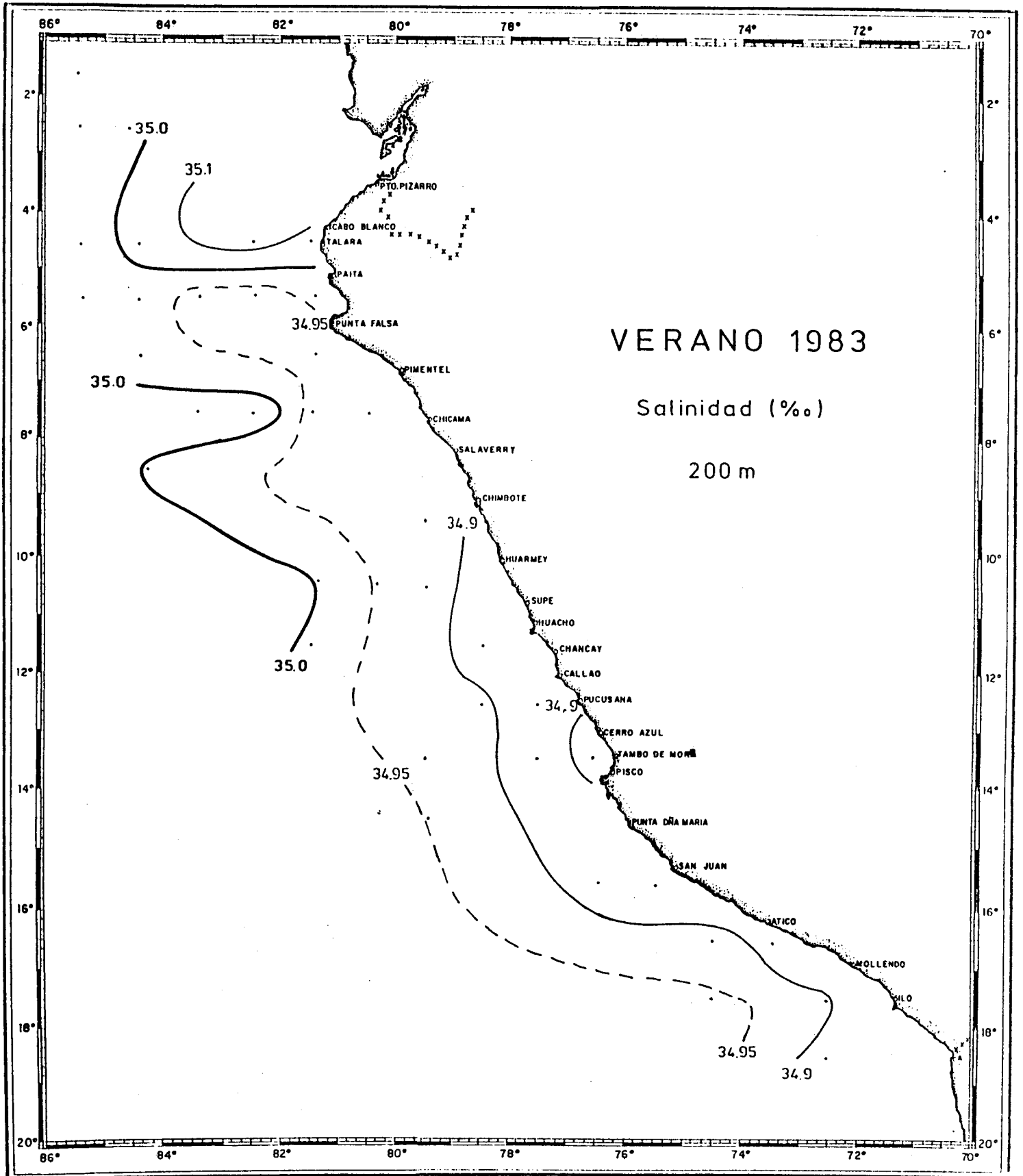


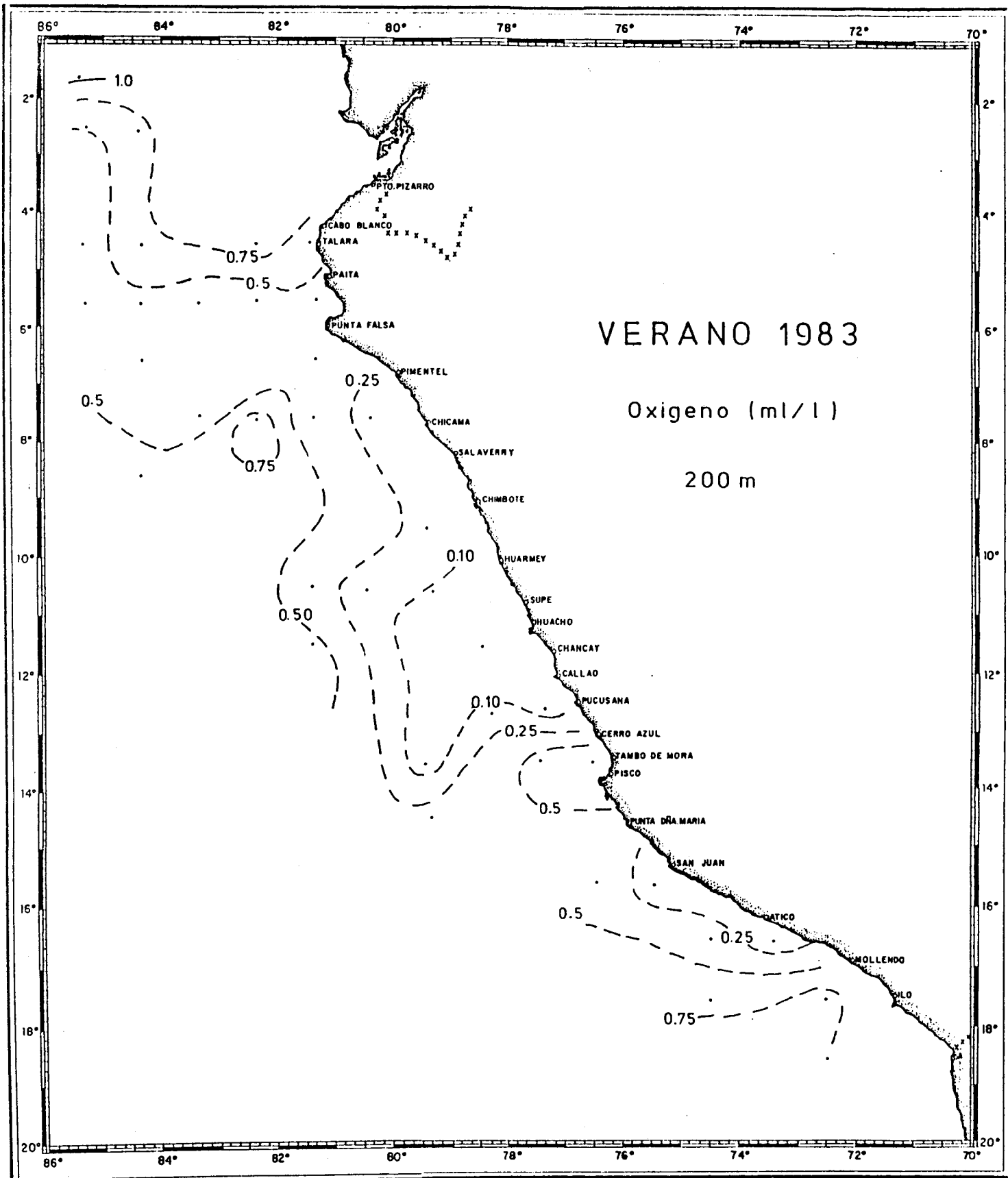


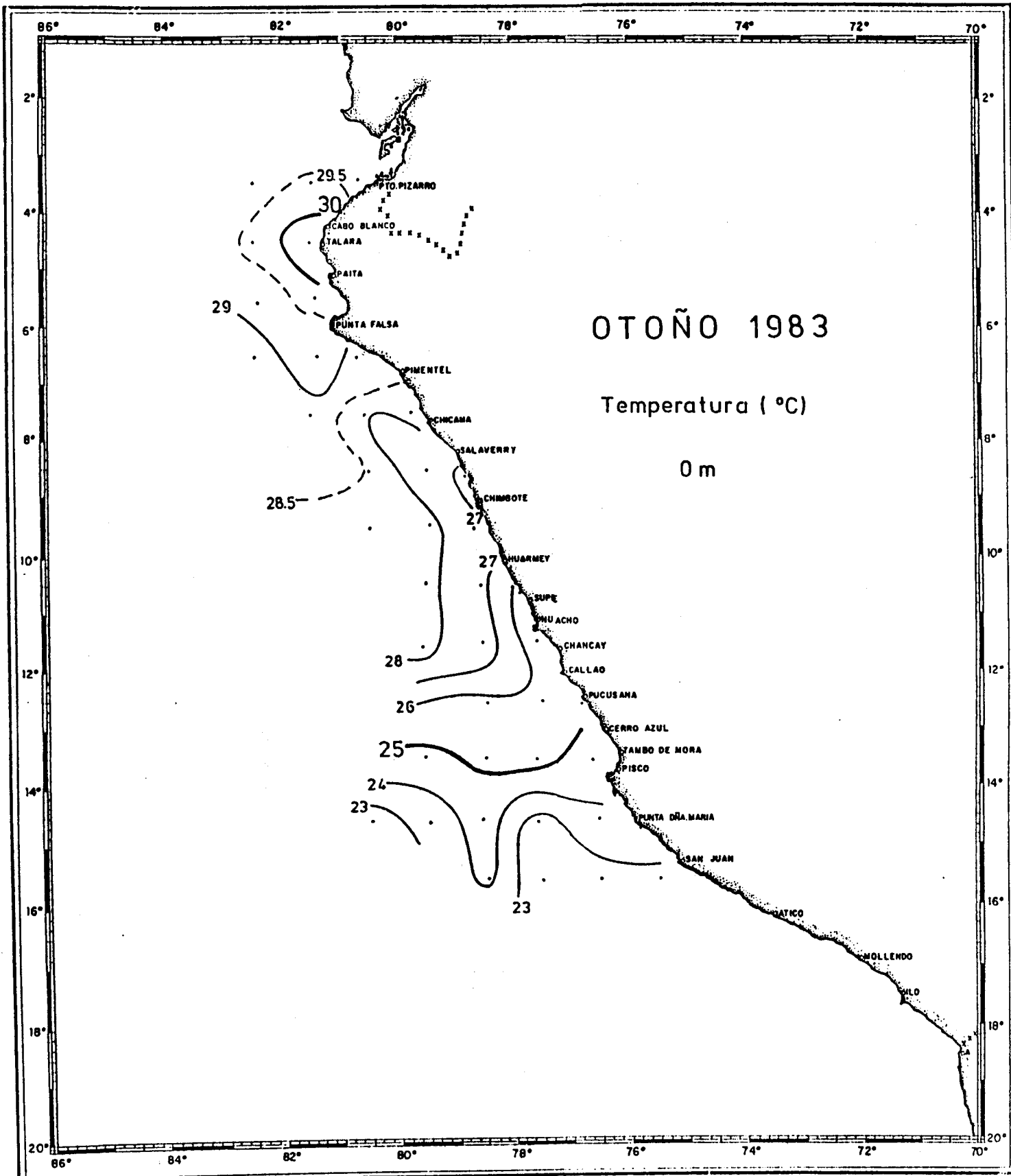


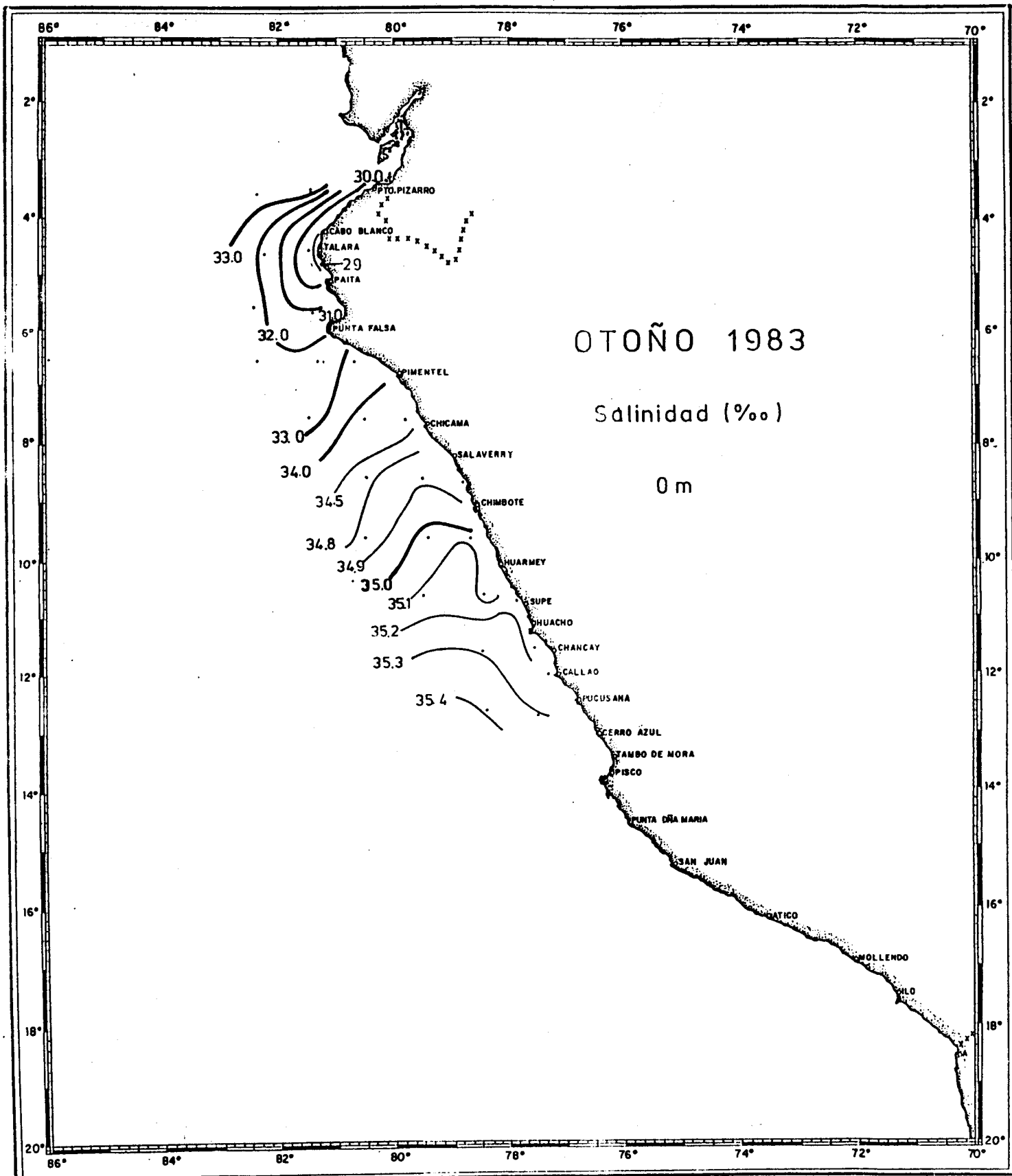


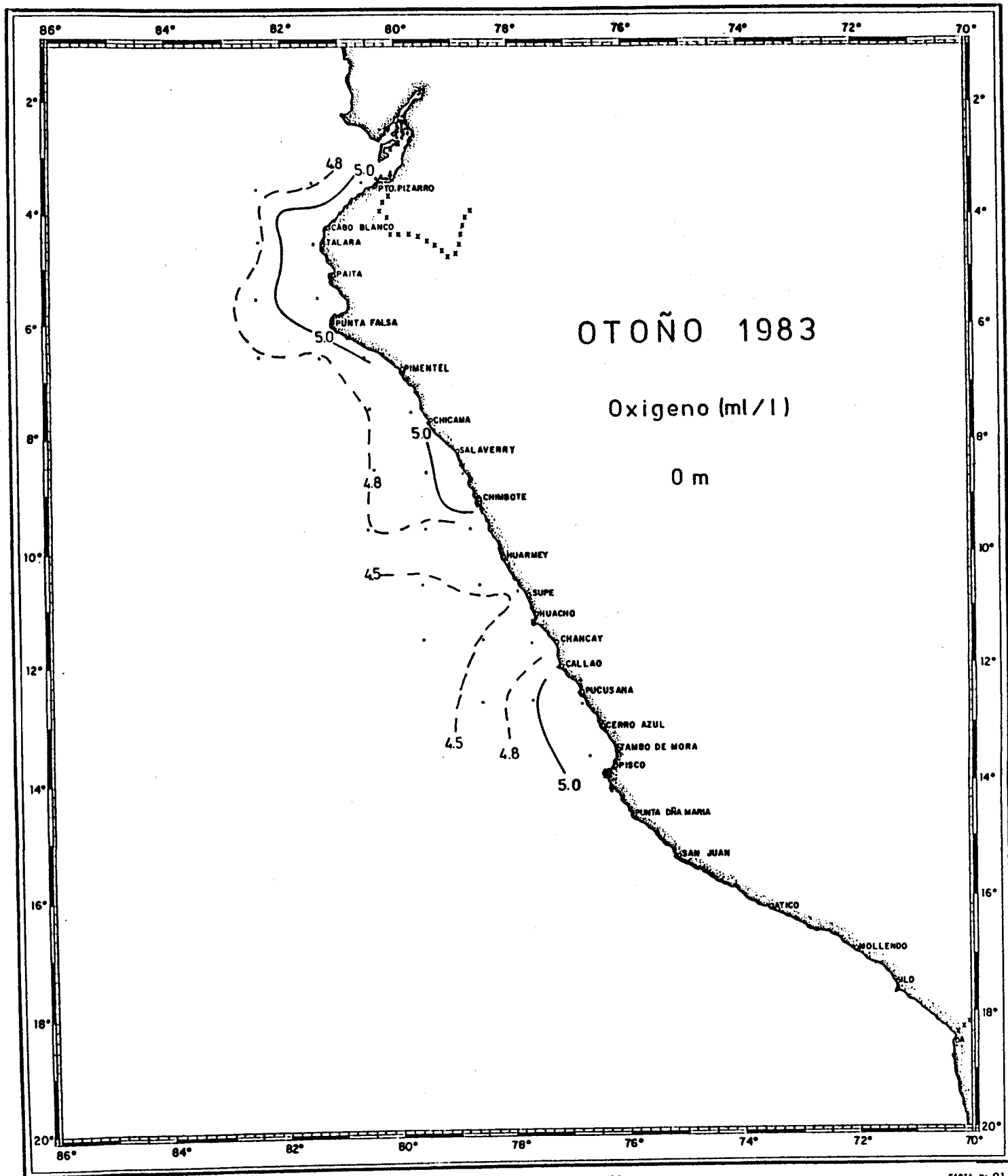


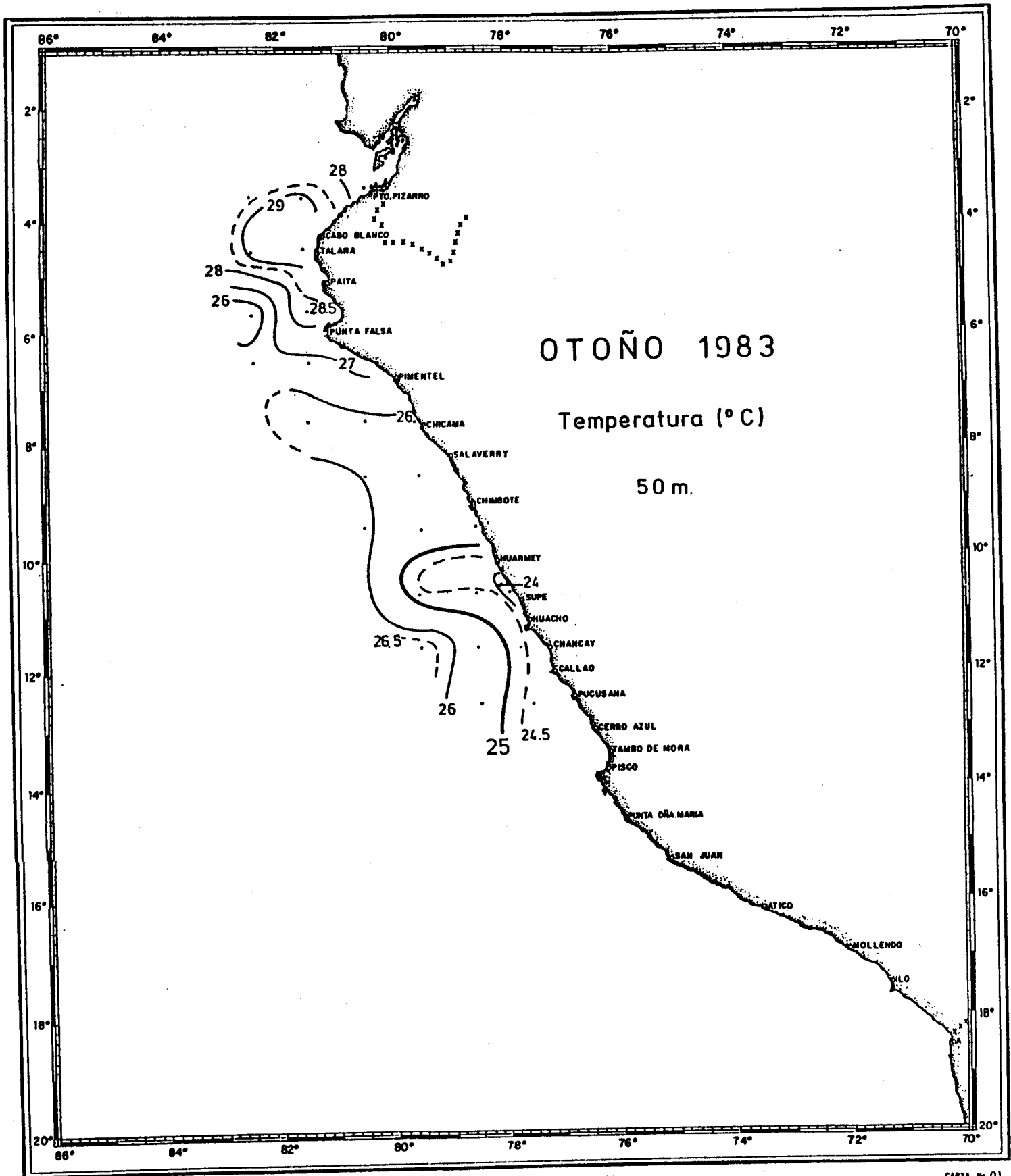


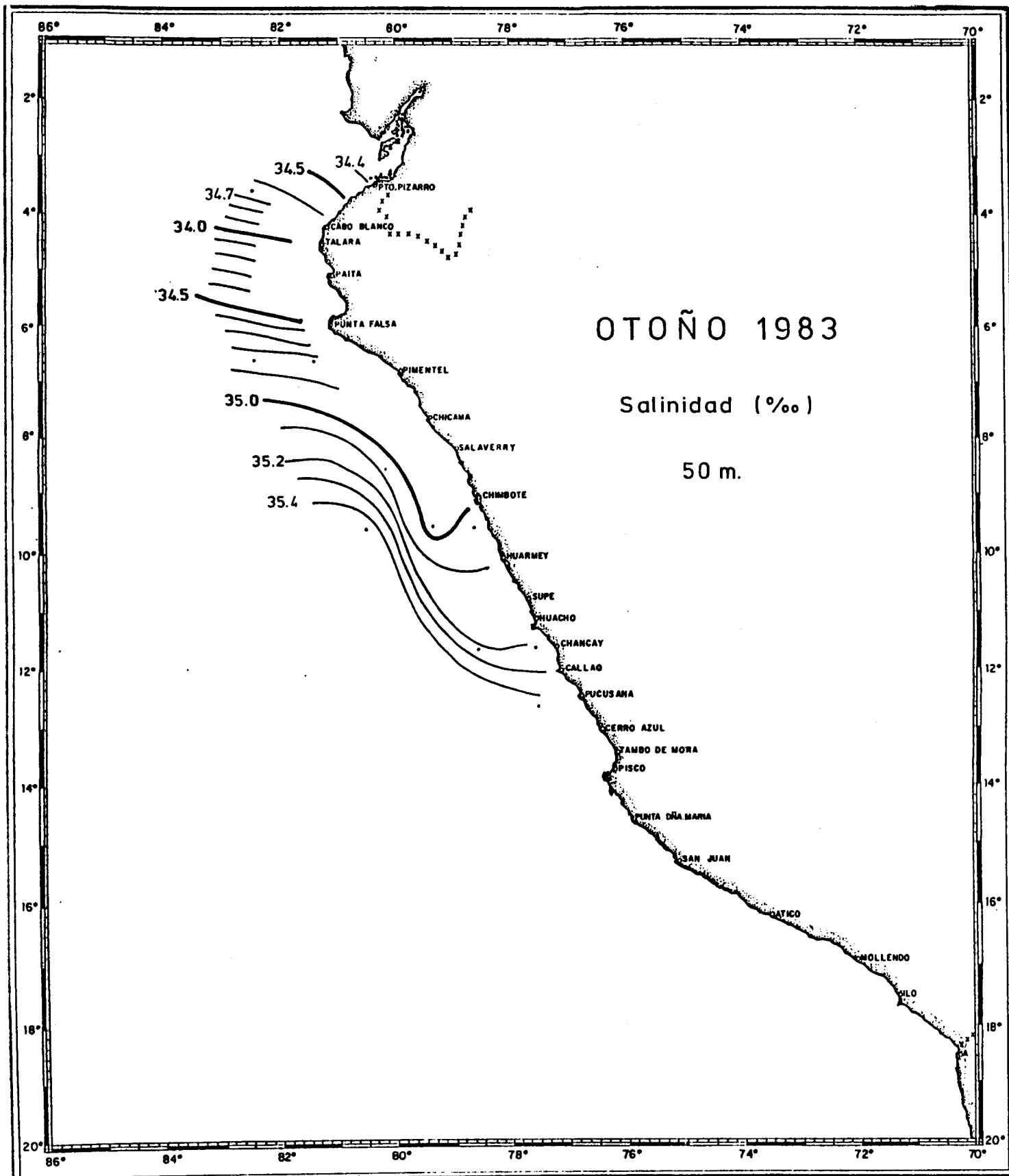


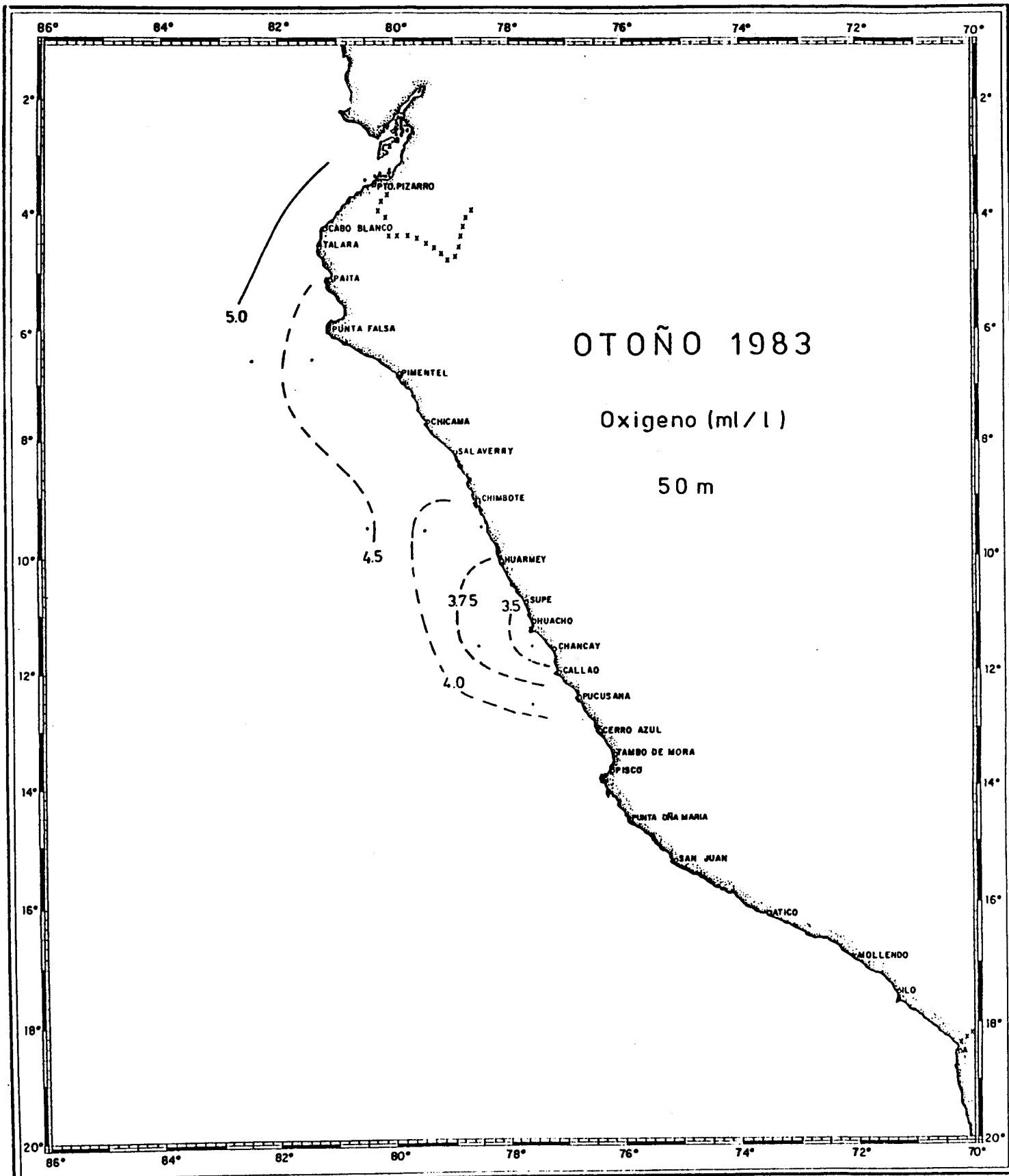


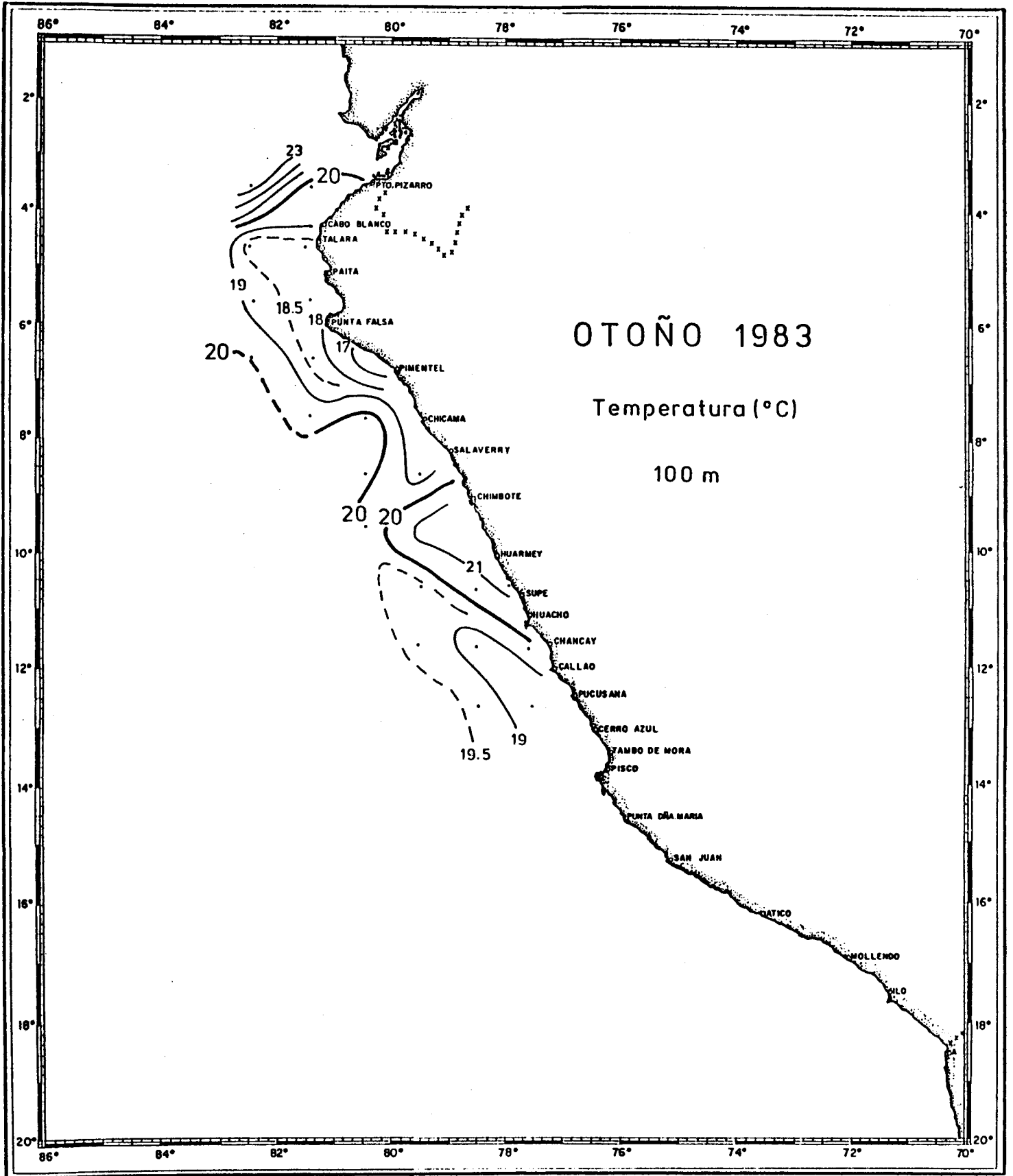


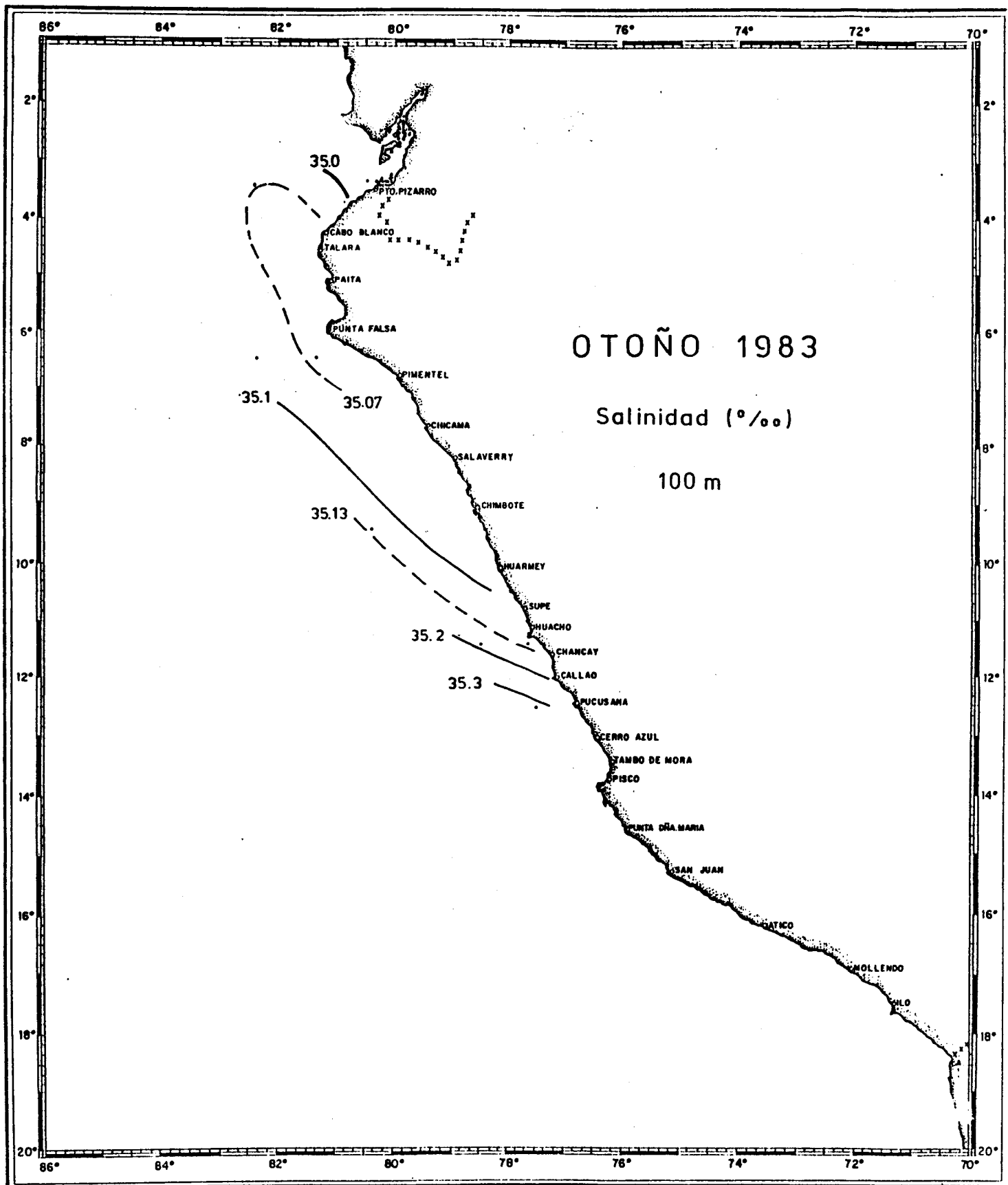


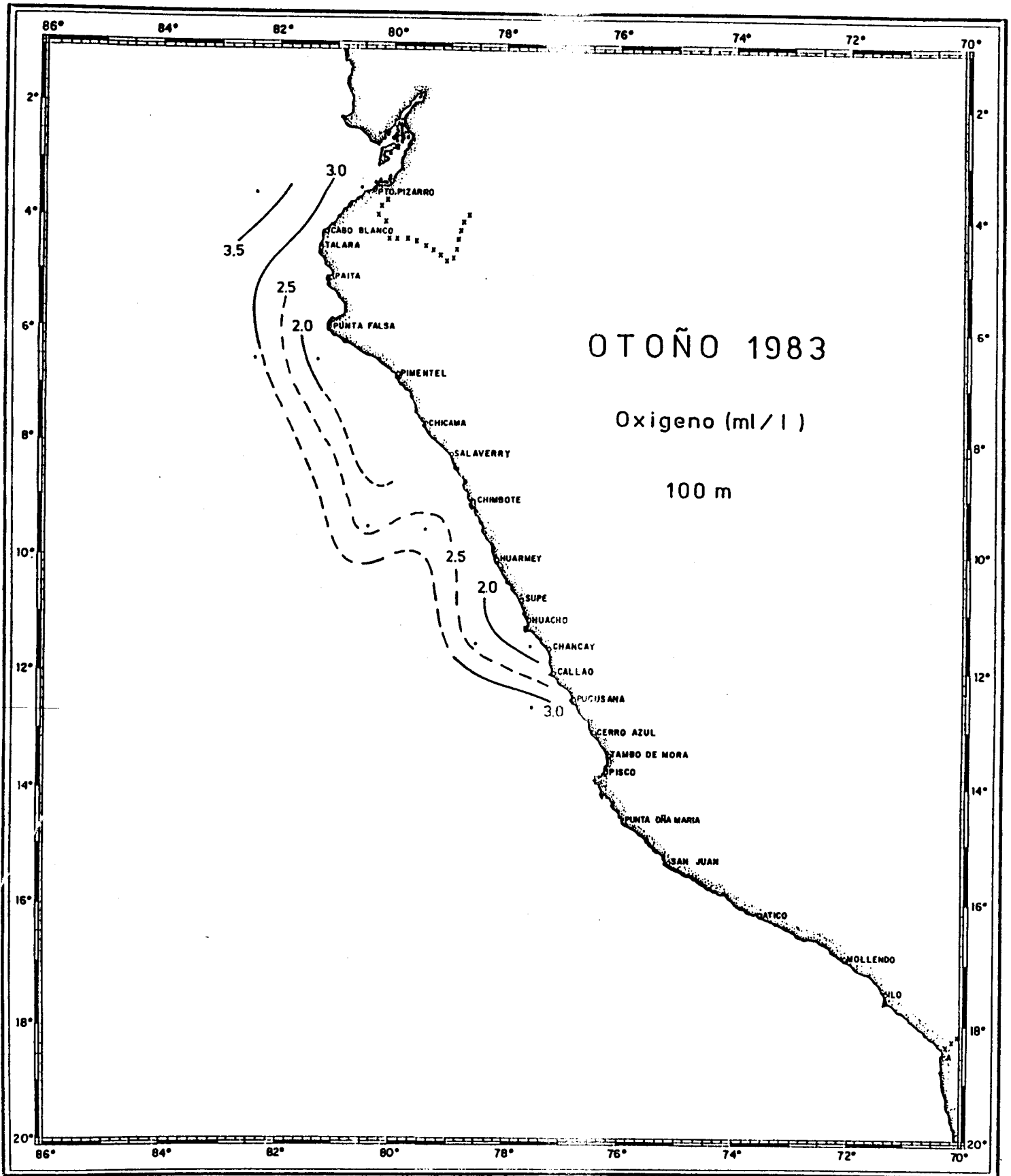


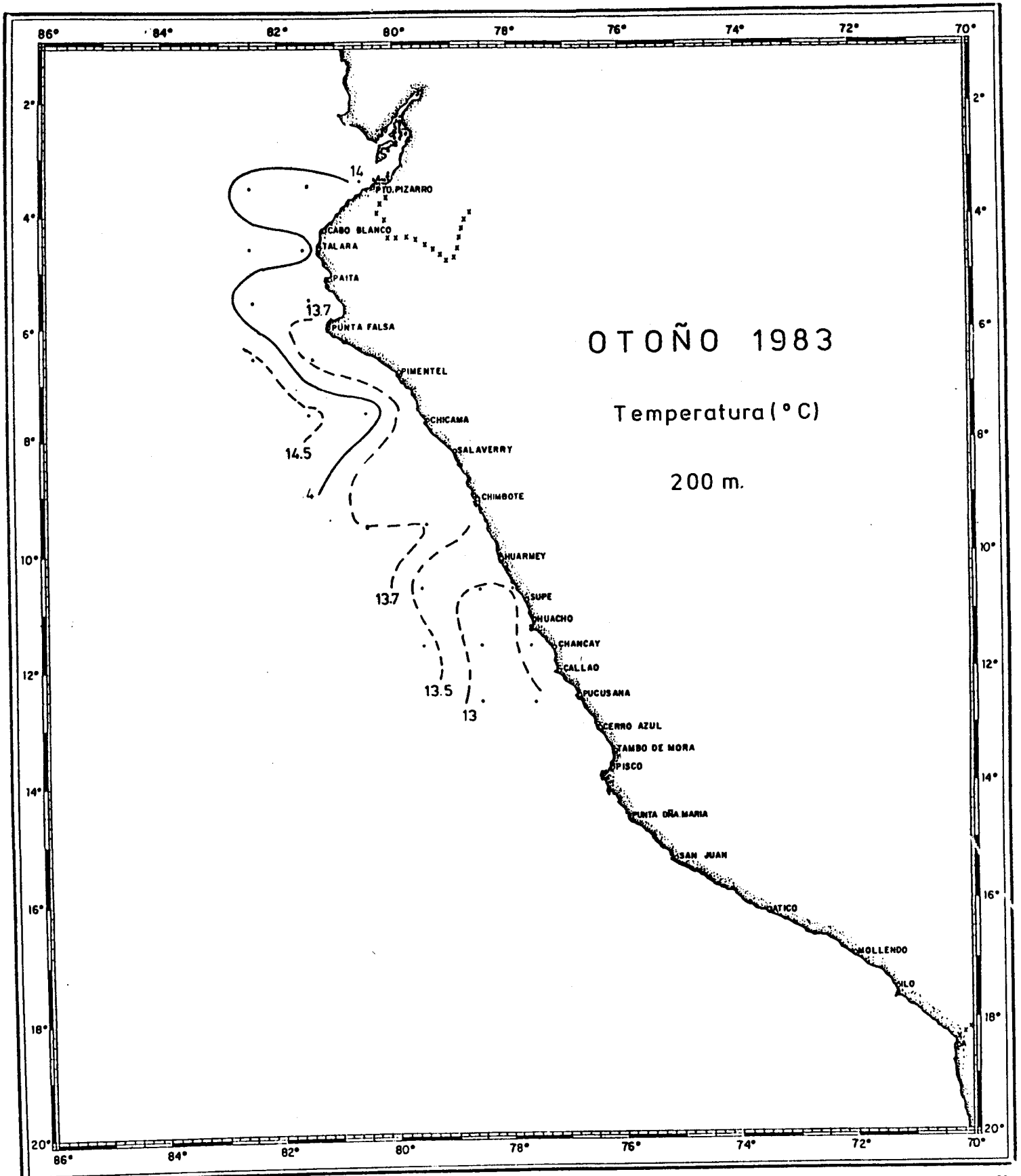


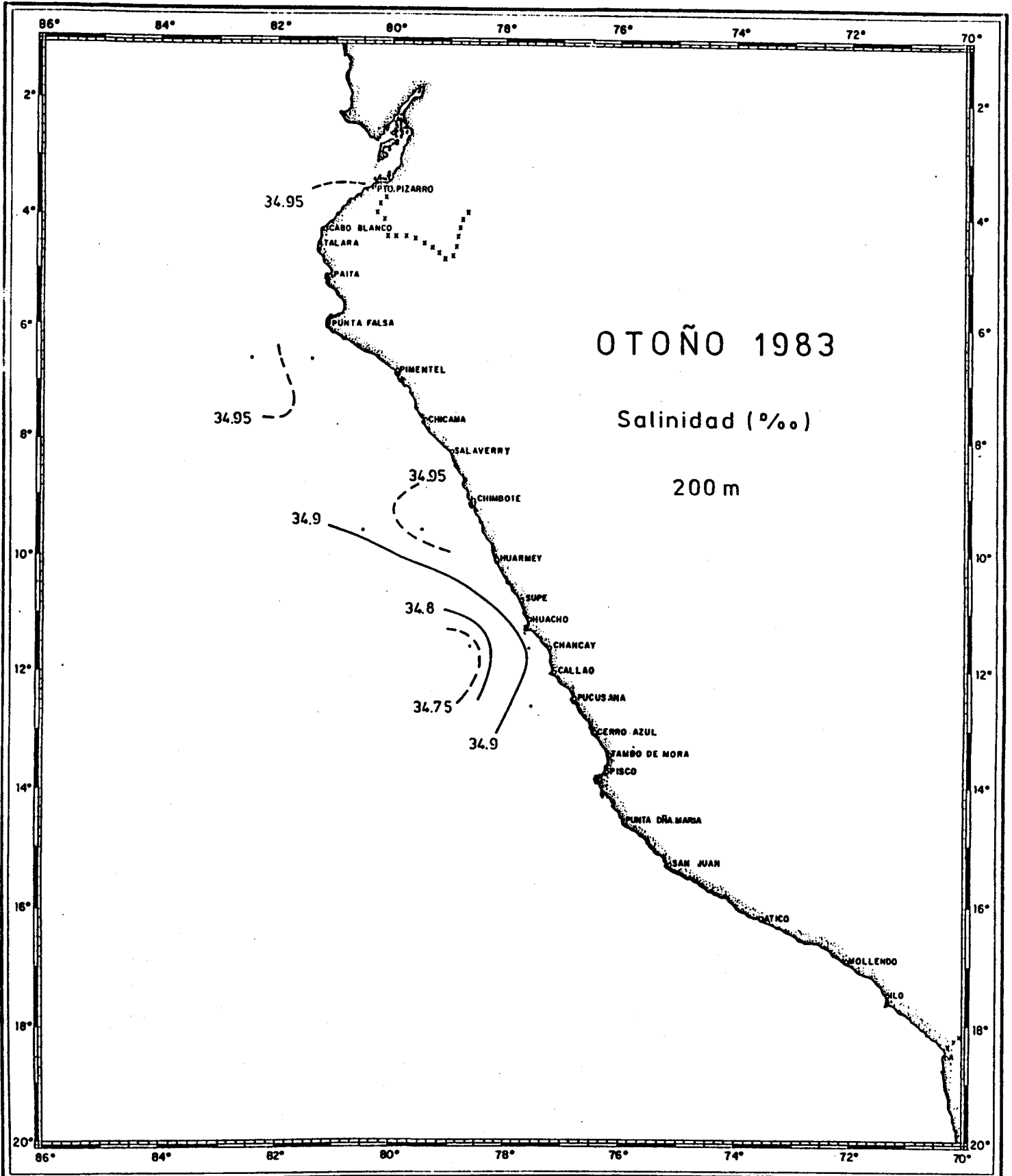


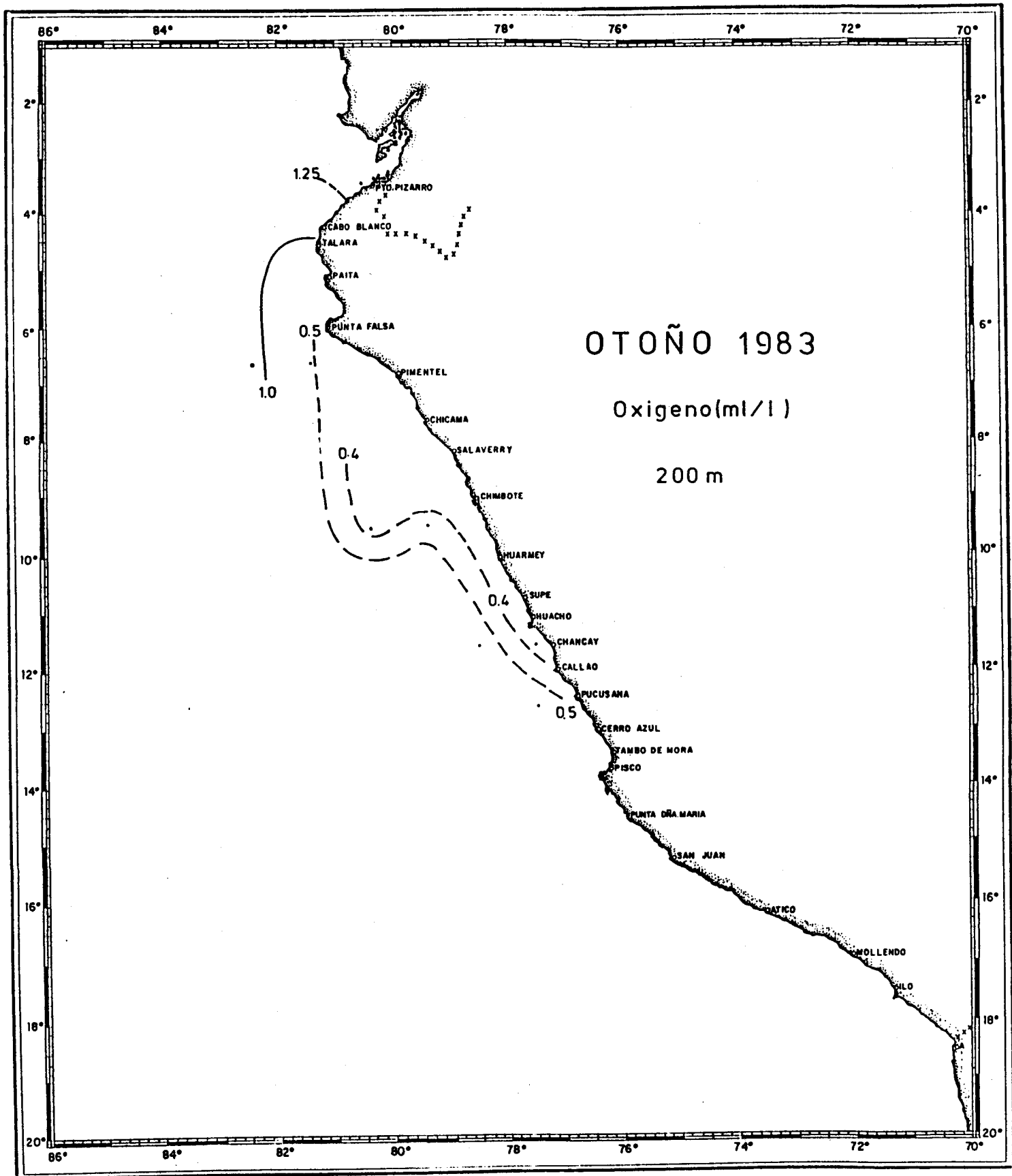






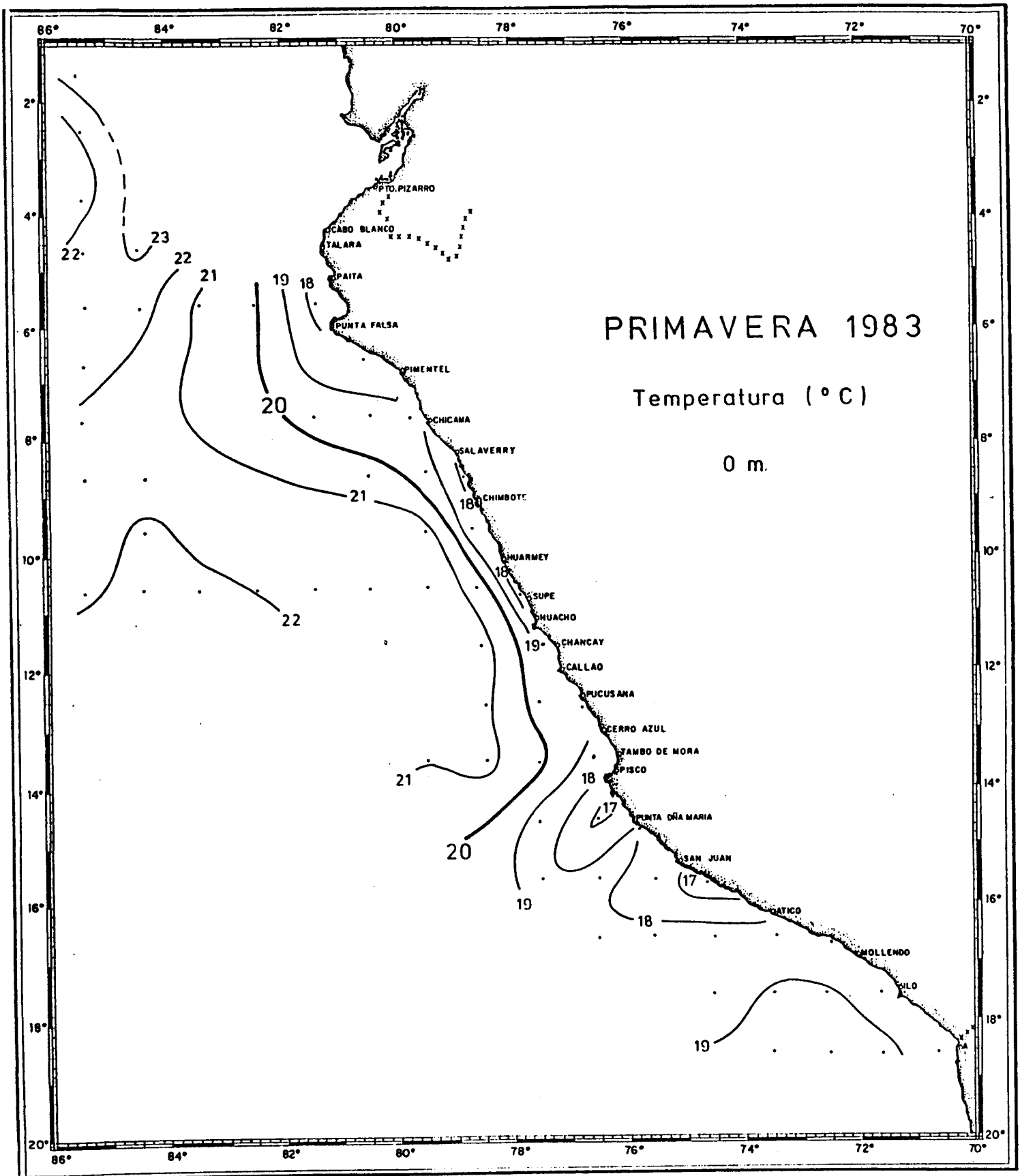


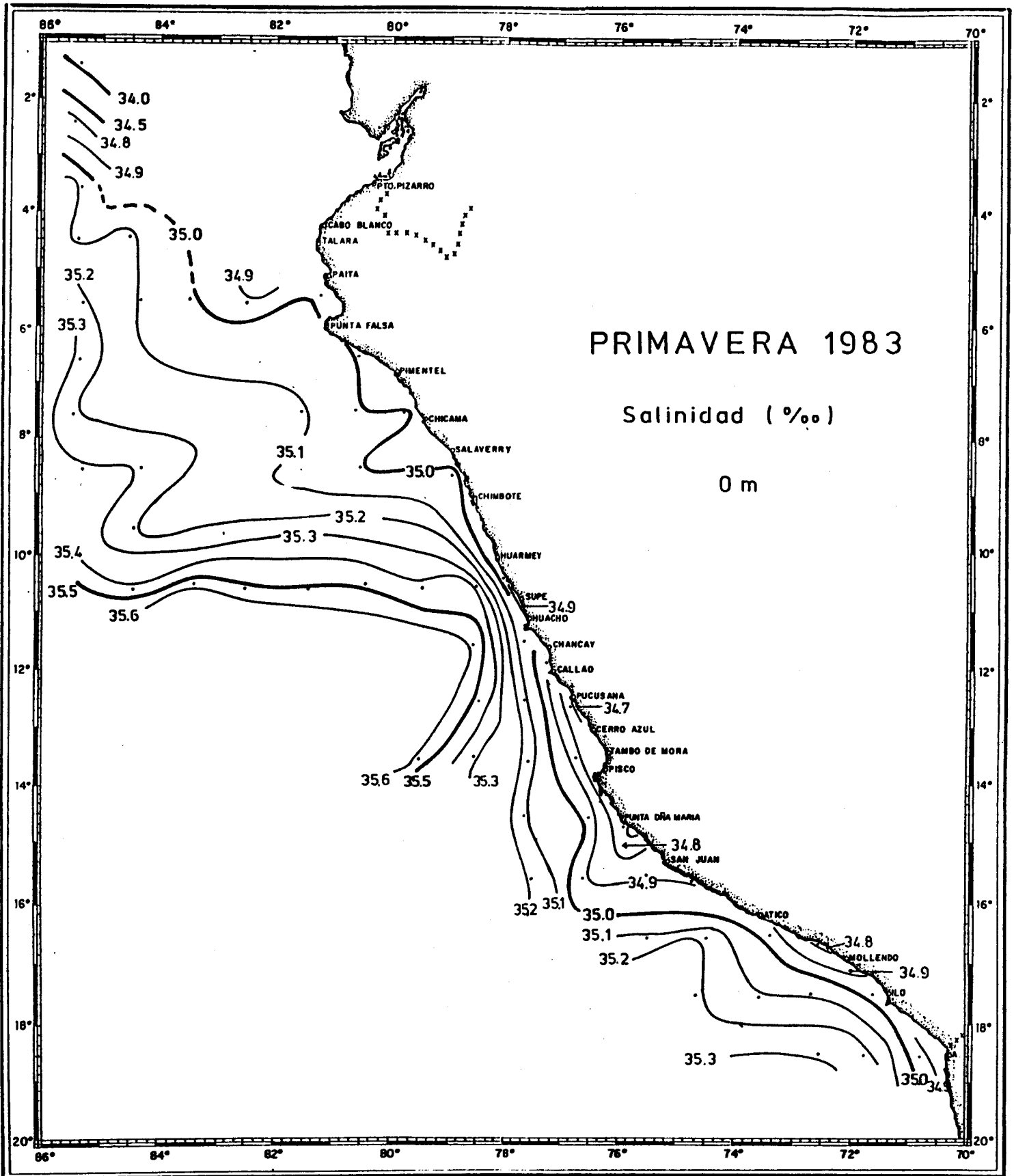


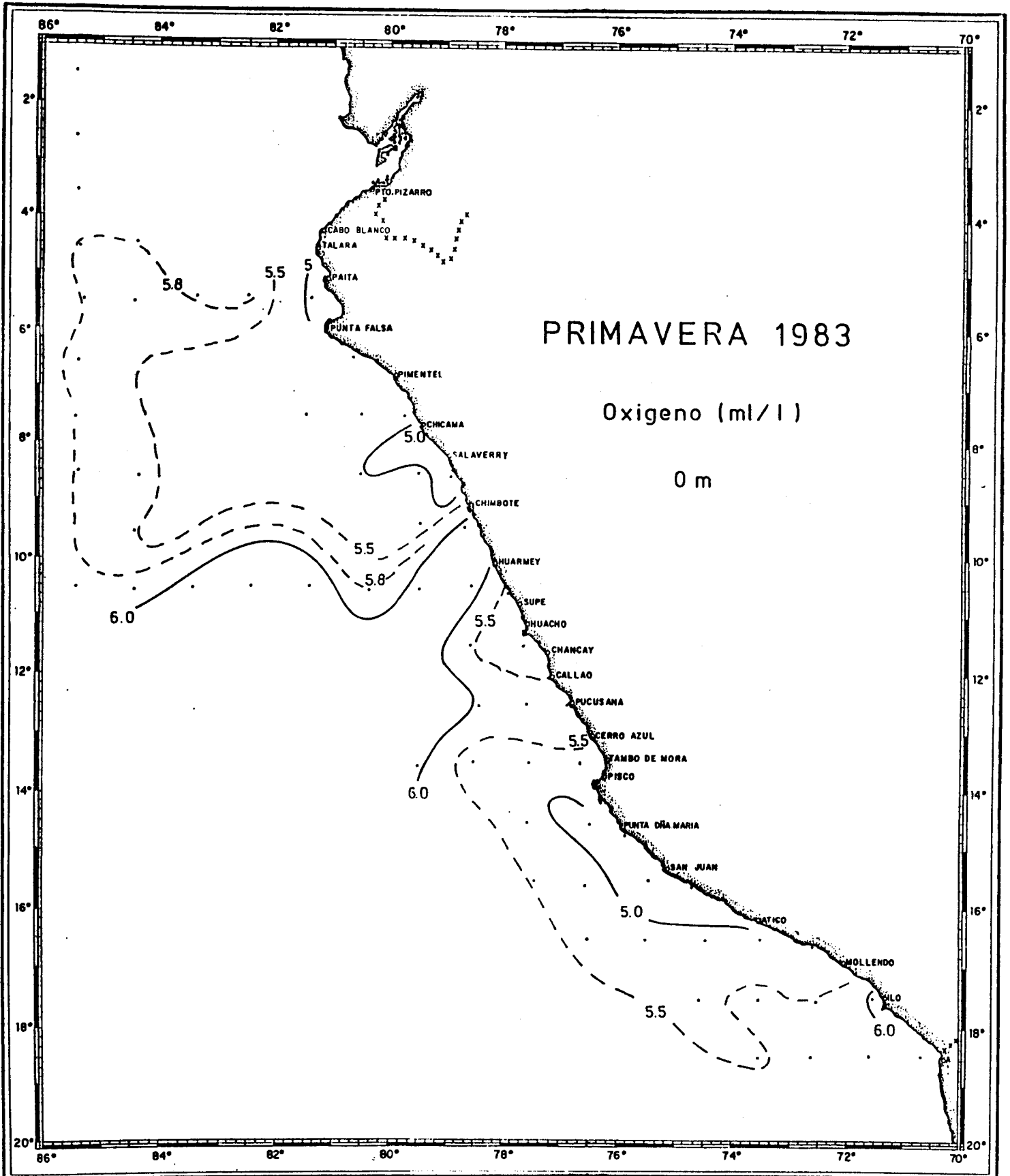


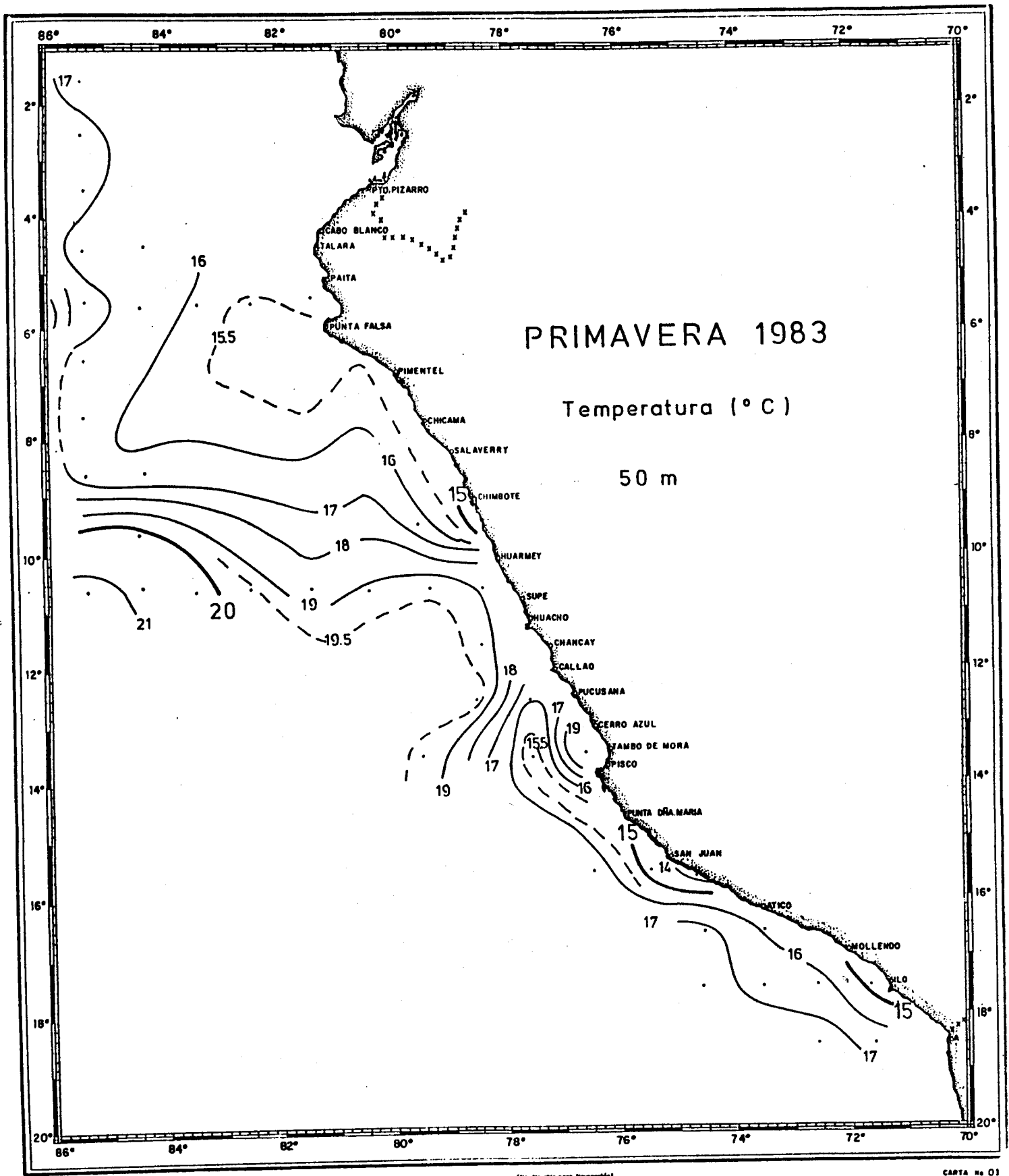
(No Usado para Navegación)

CARTA No 01





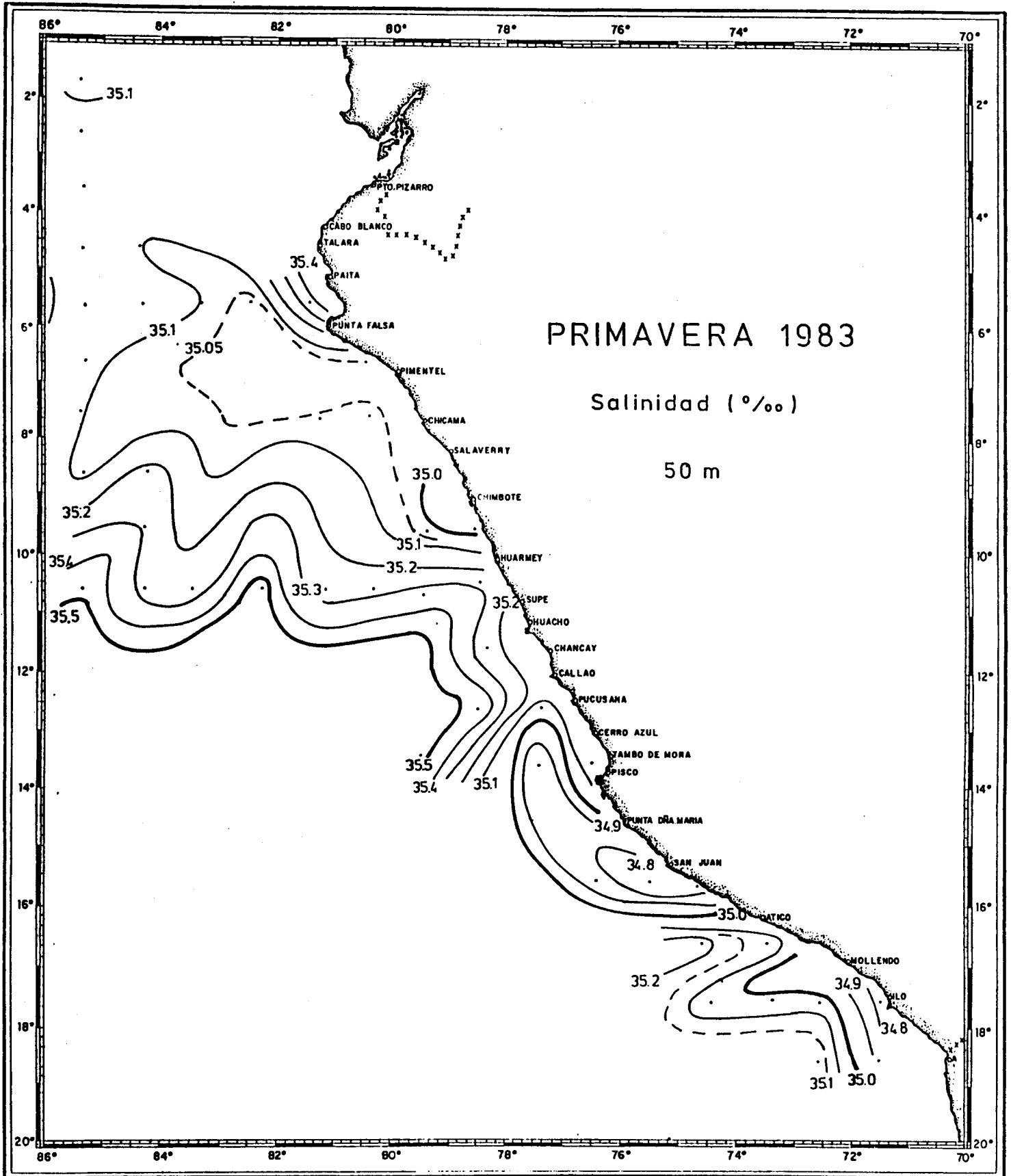


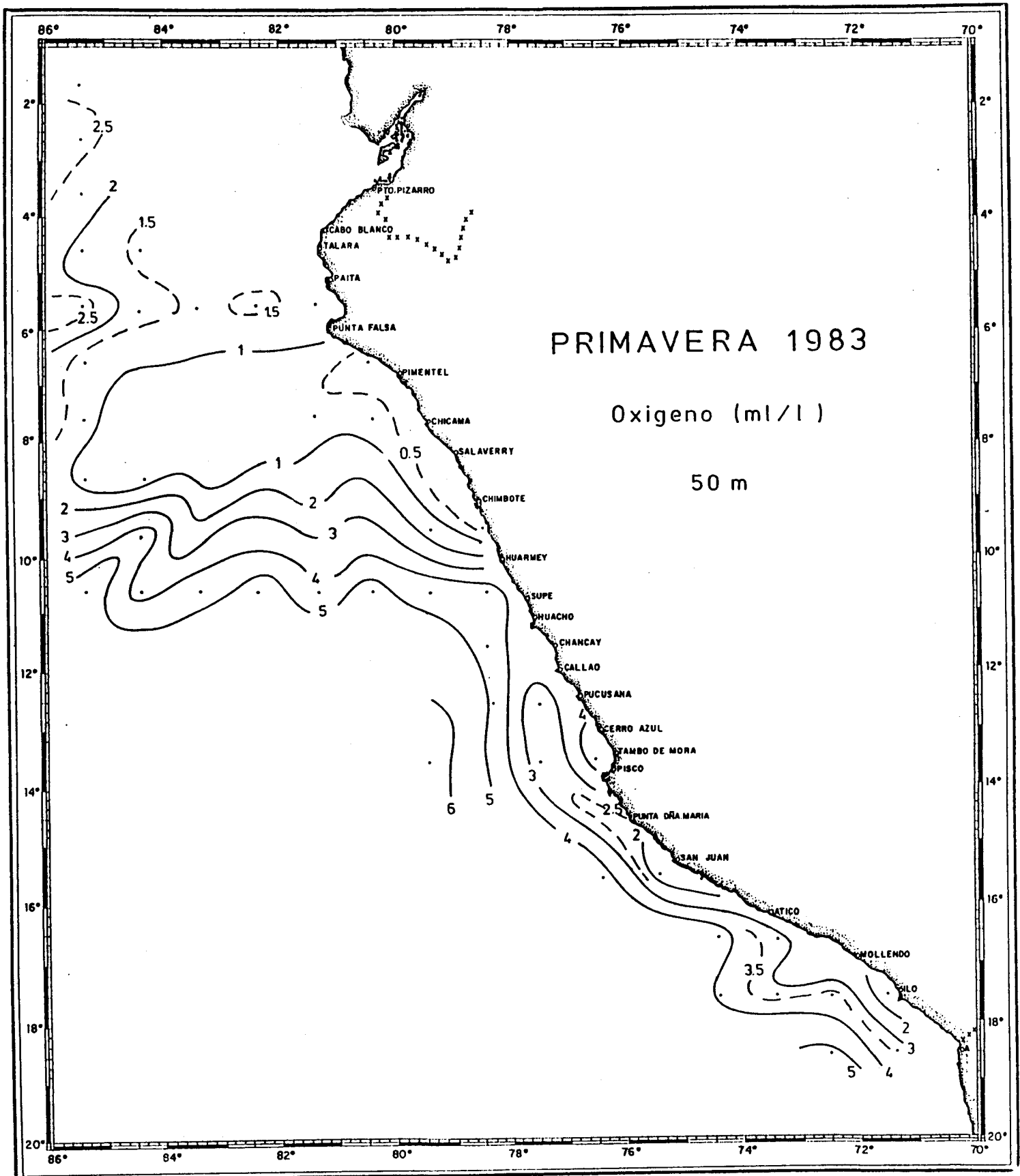


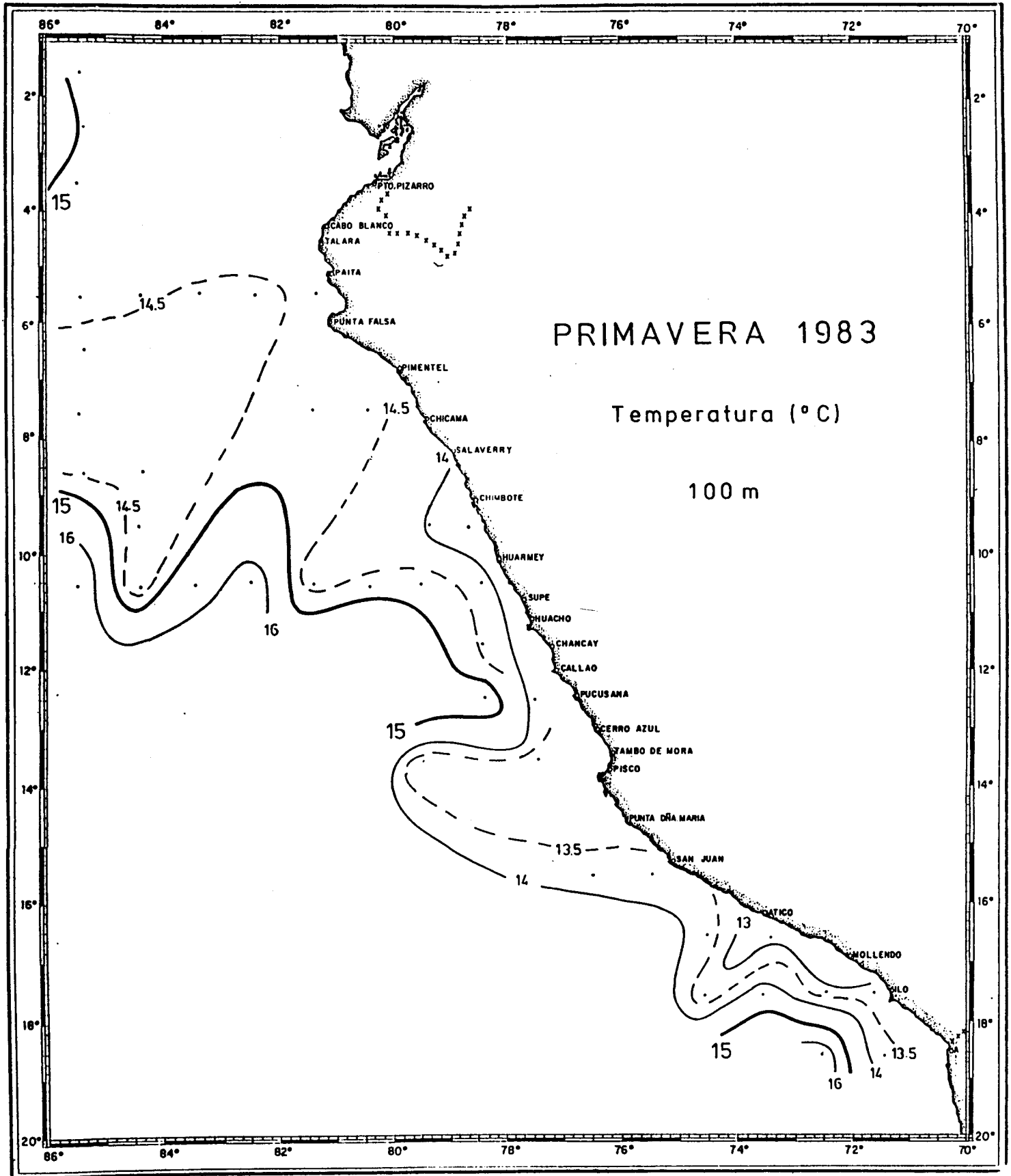
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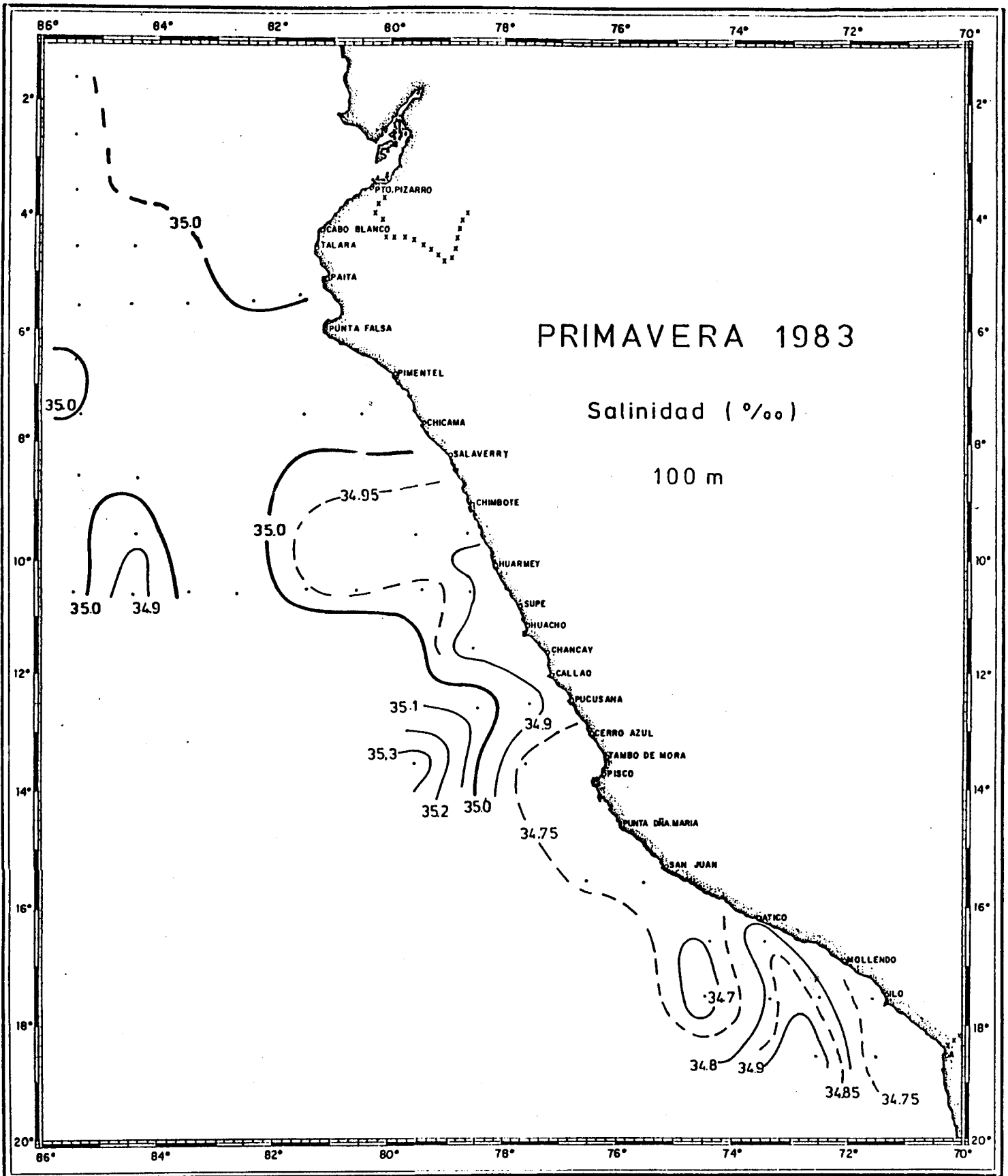
CARTA No 01

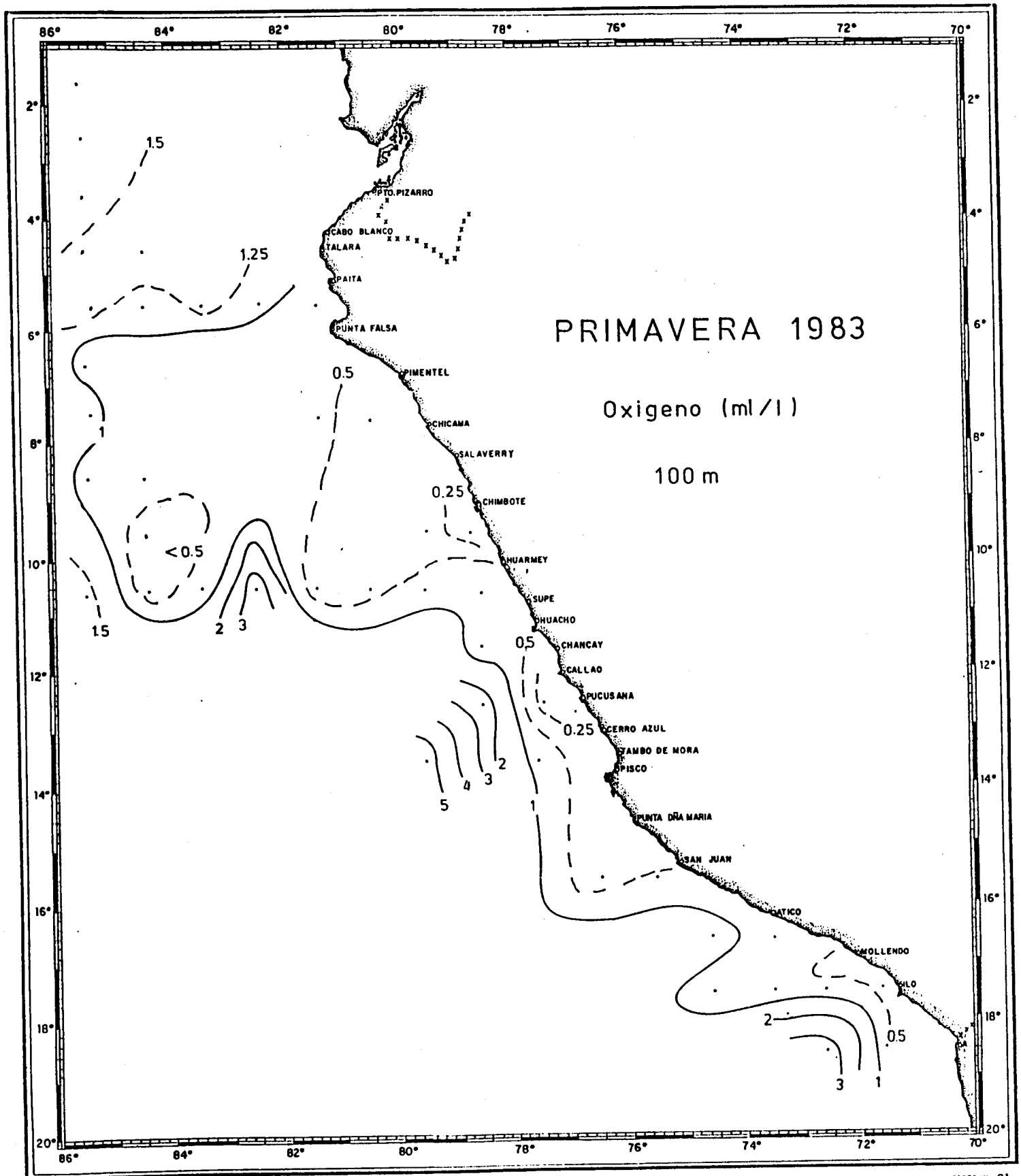
INSTITUTO DEL MAR DAPSA

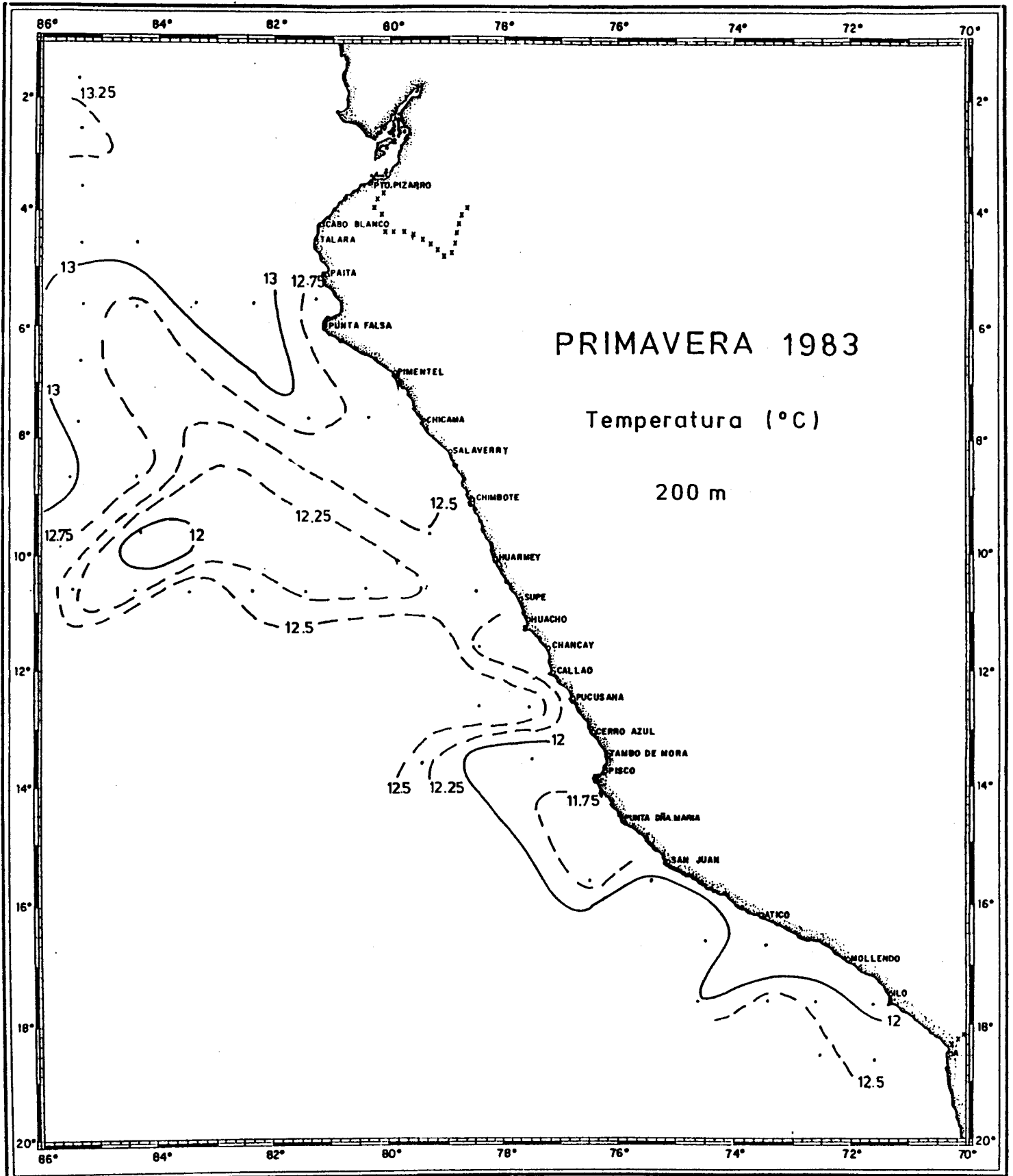


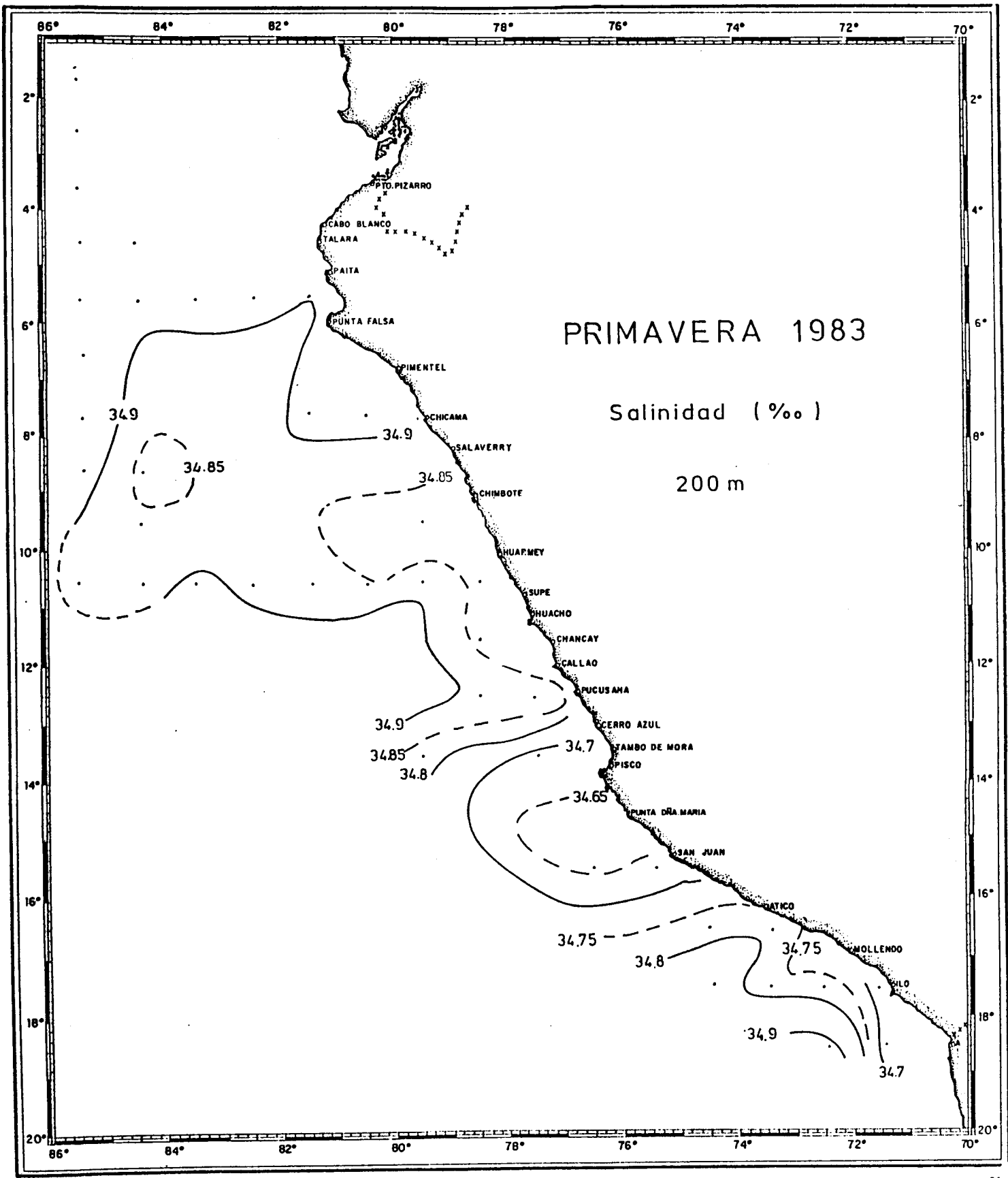


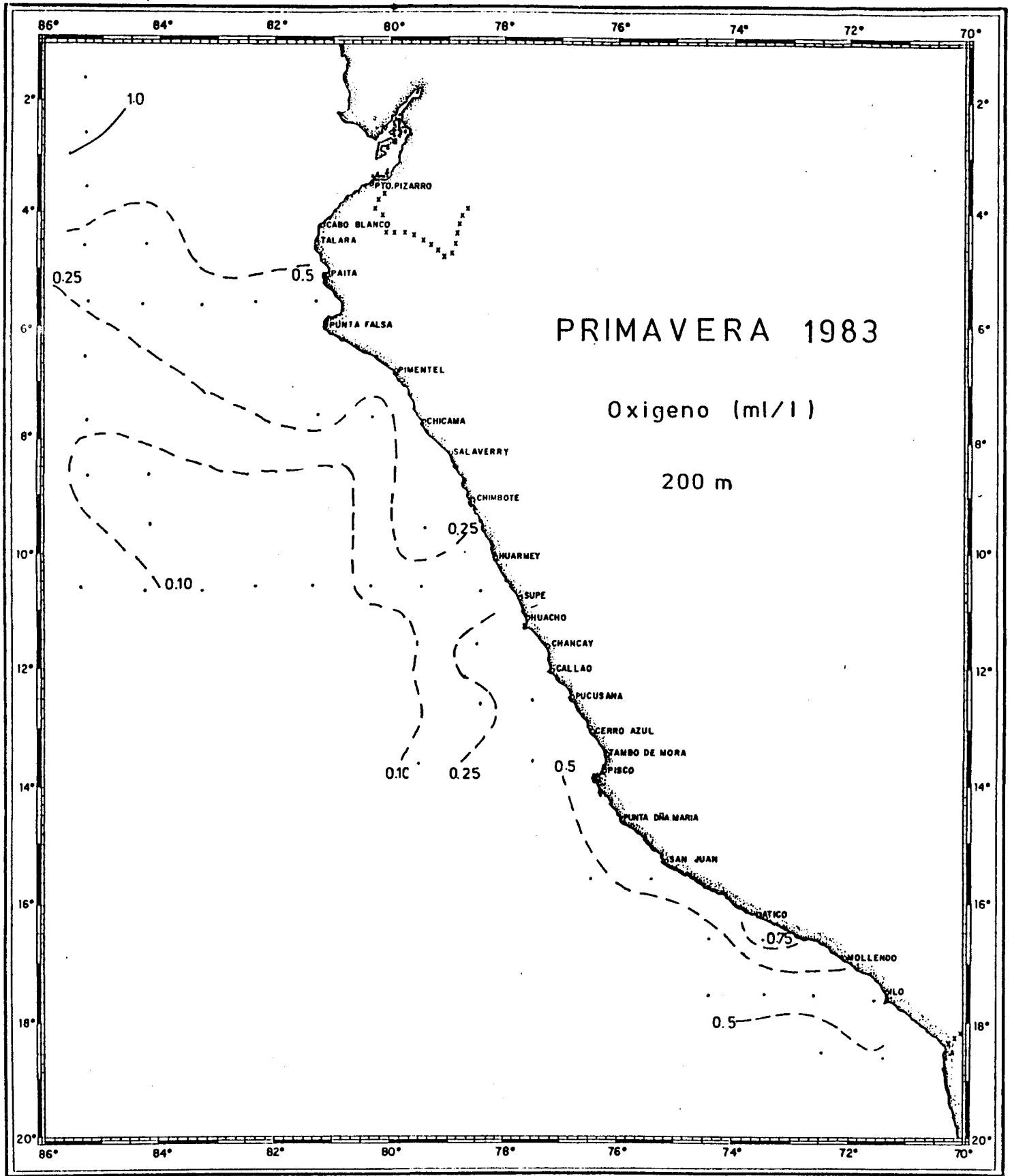


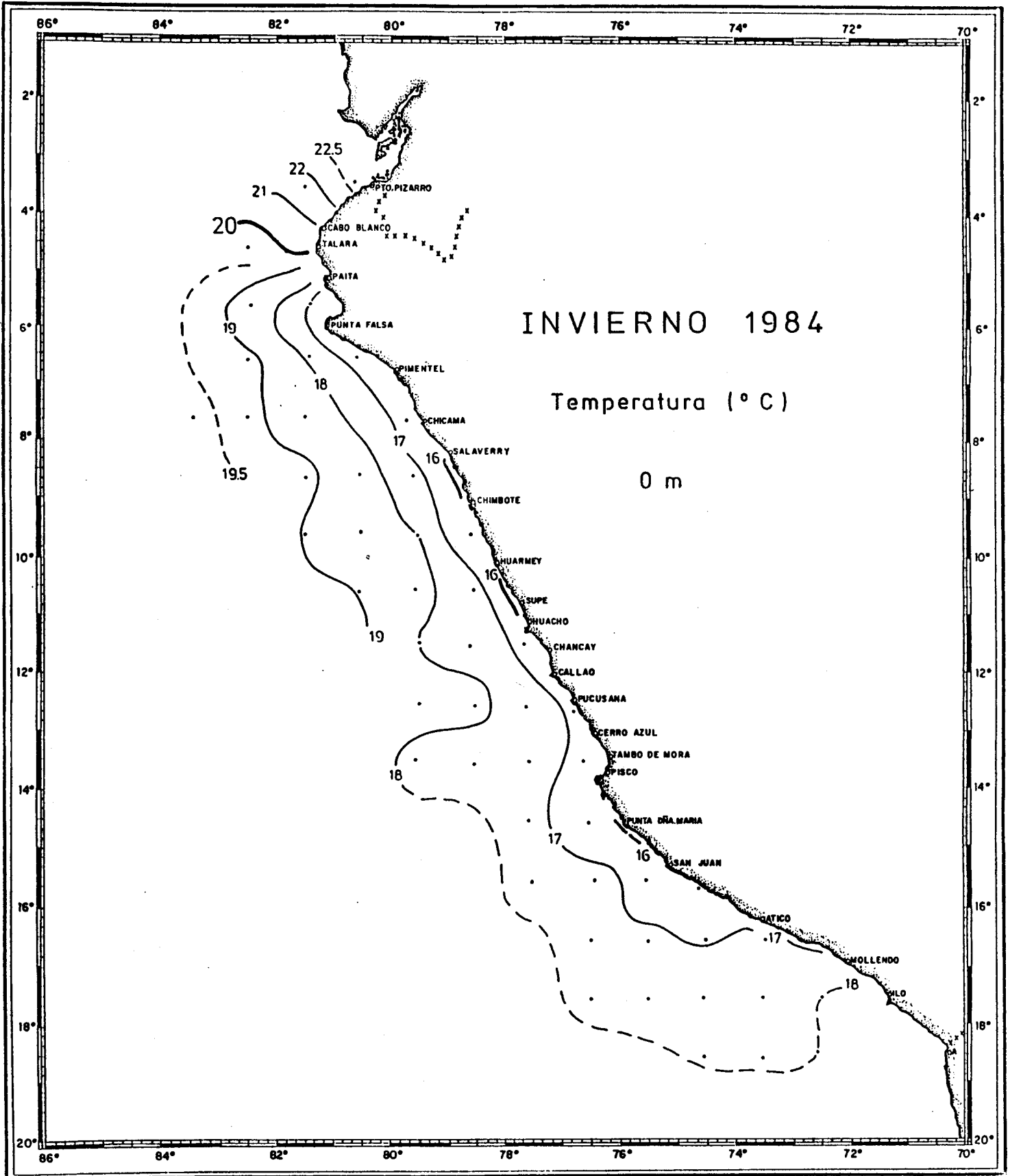


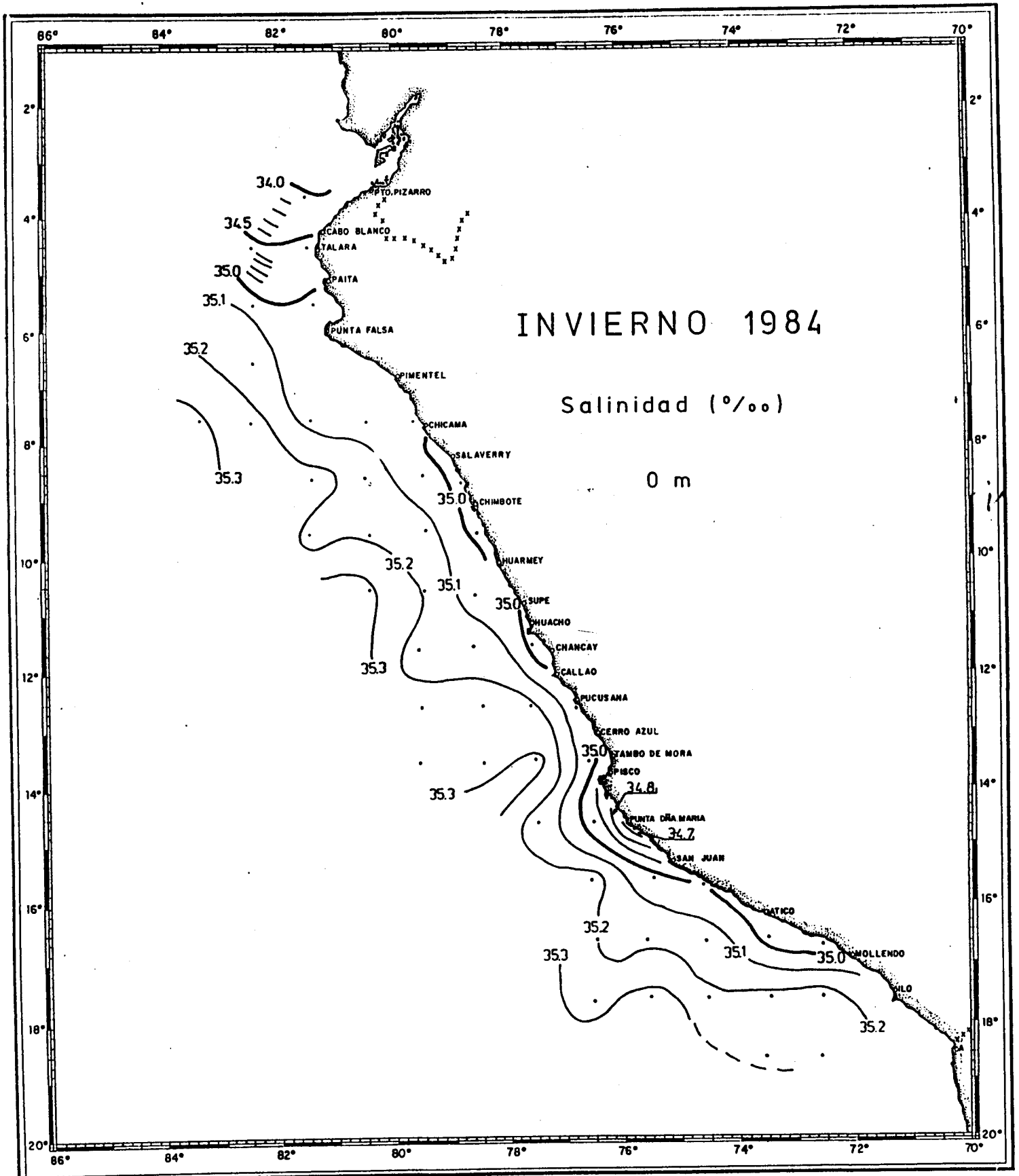


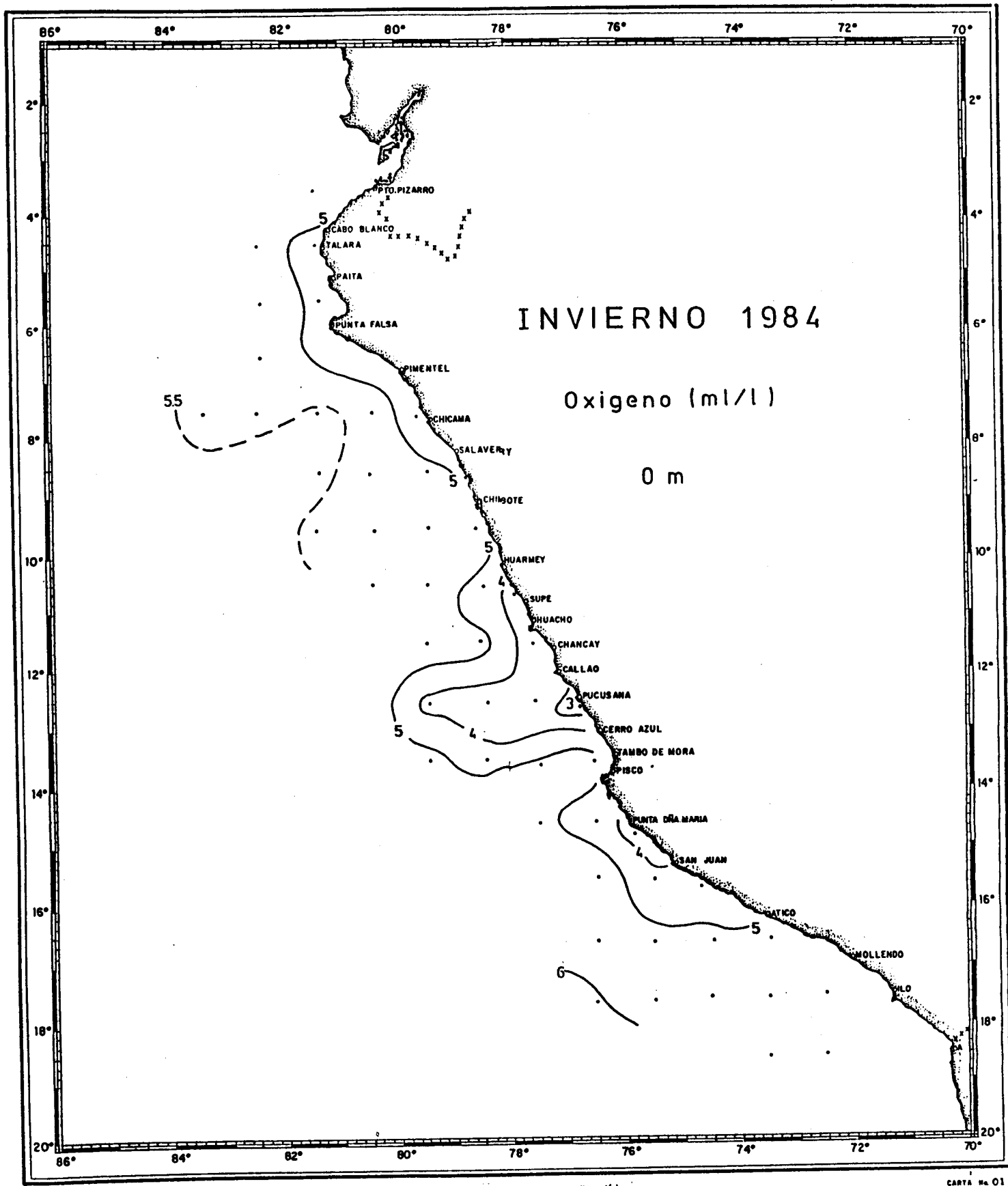


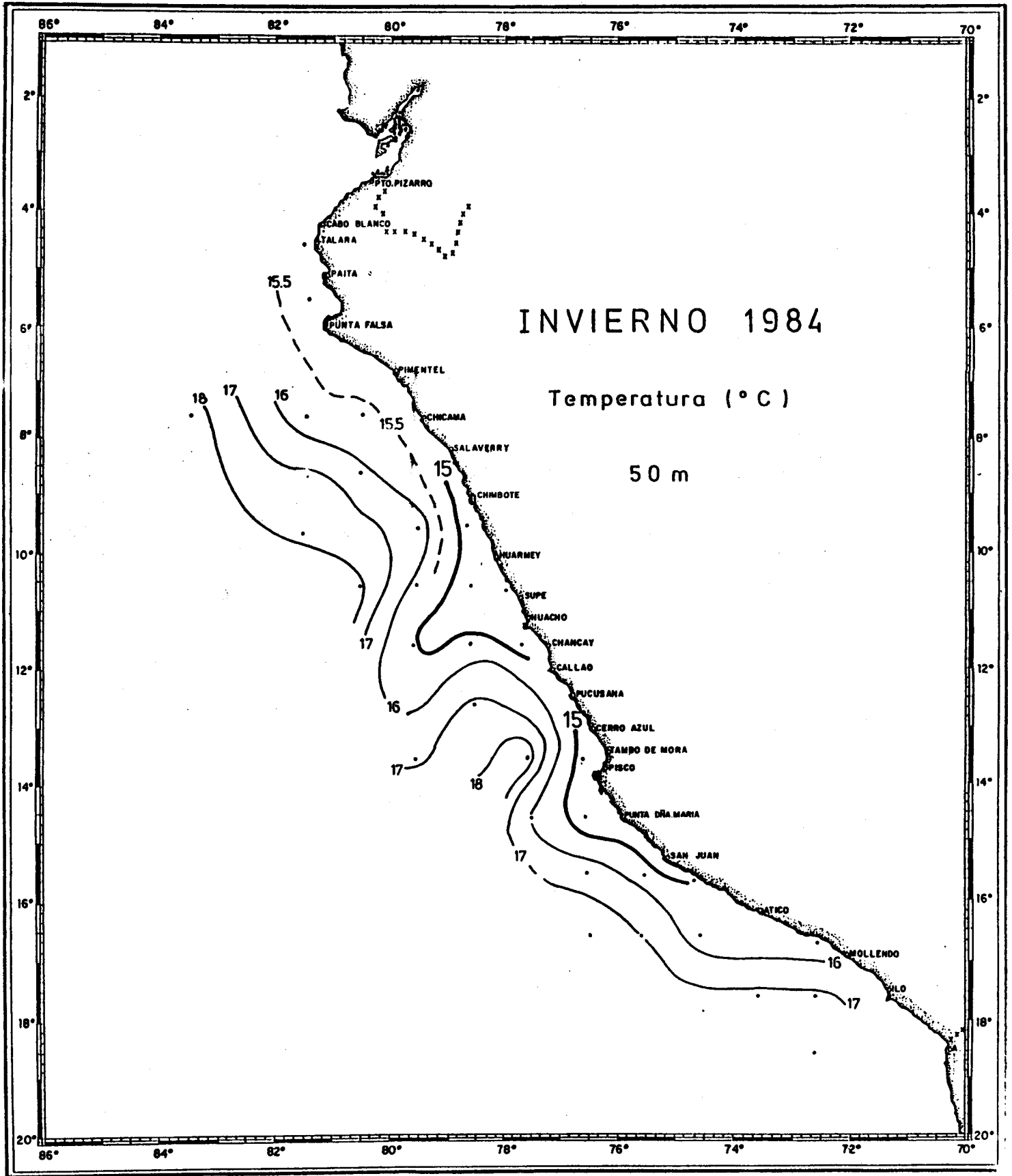


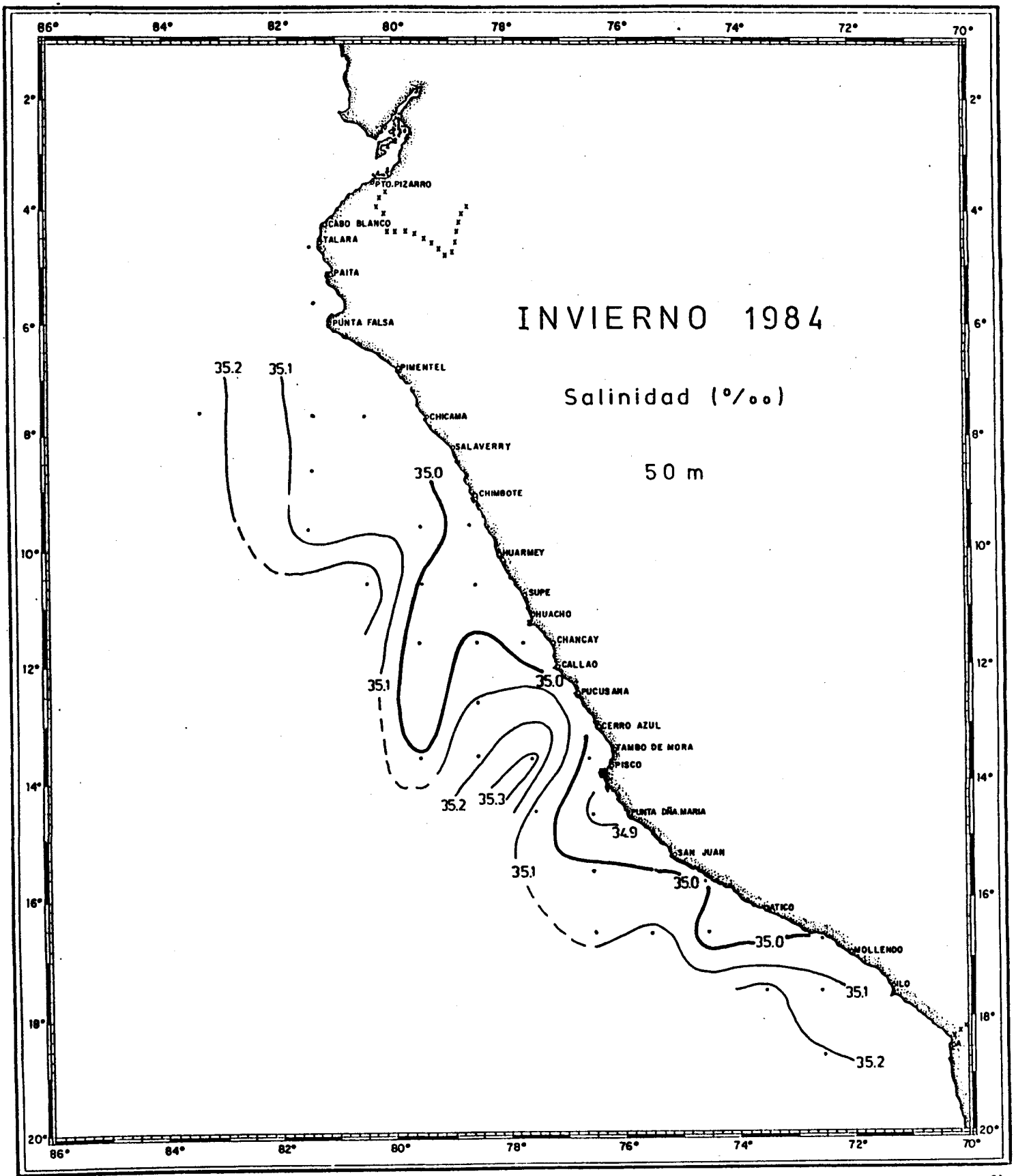


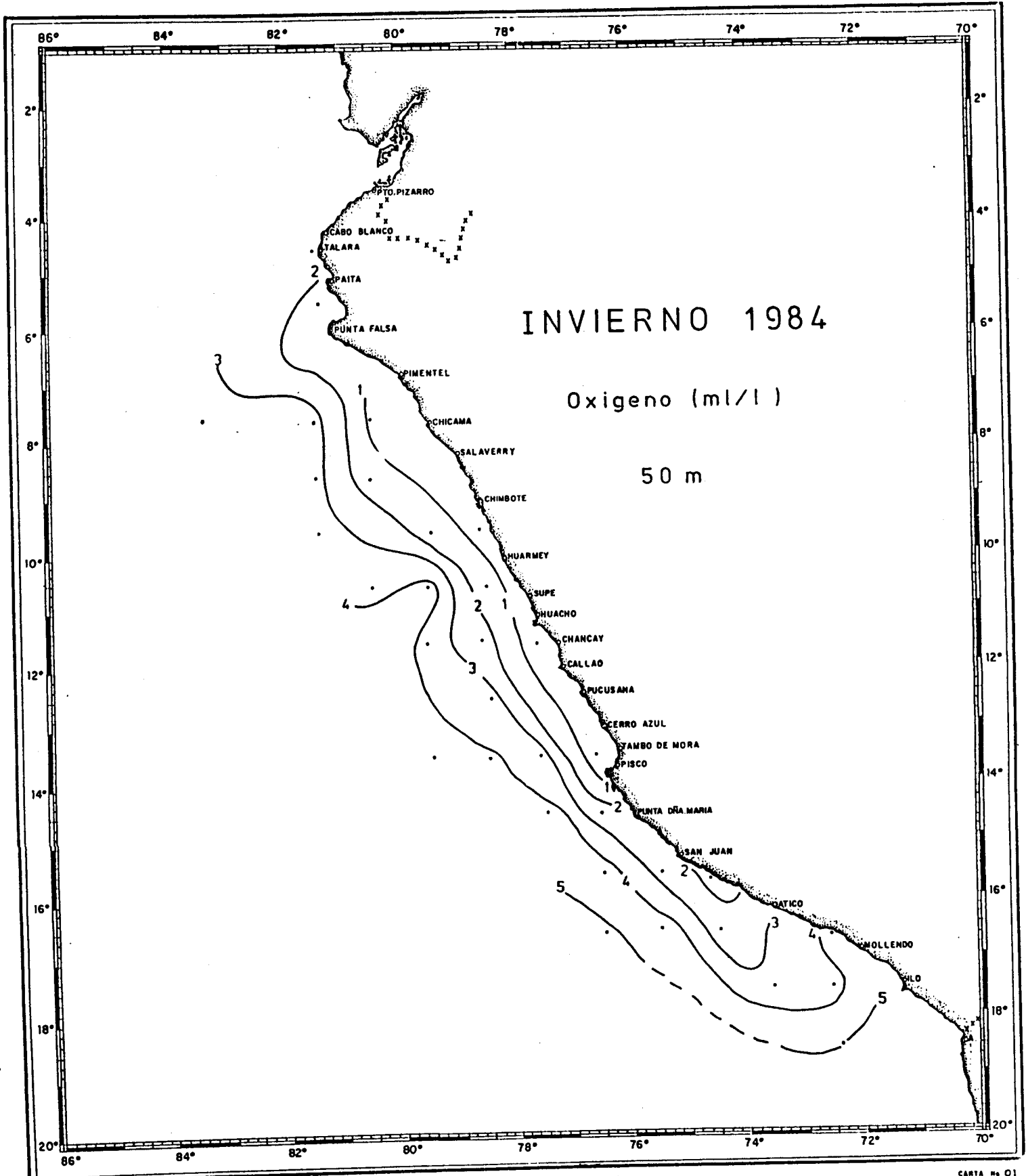


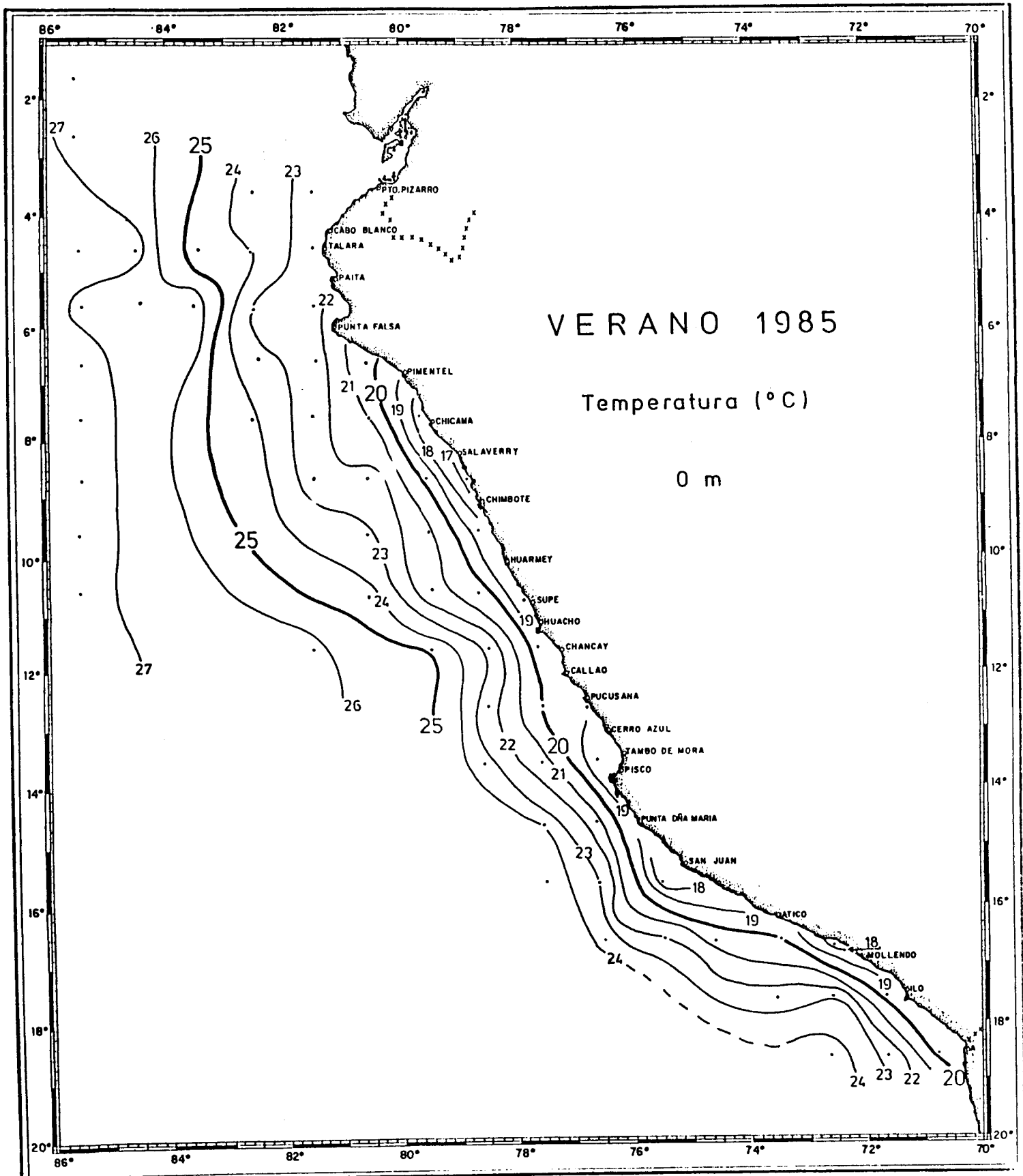


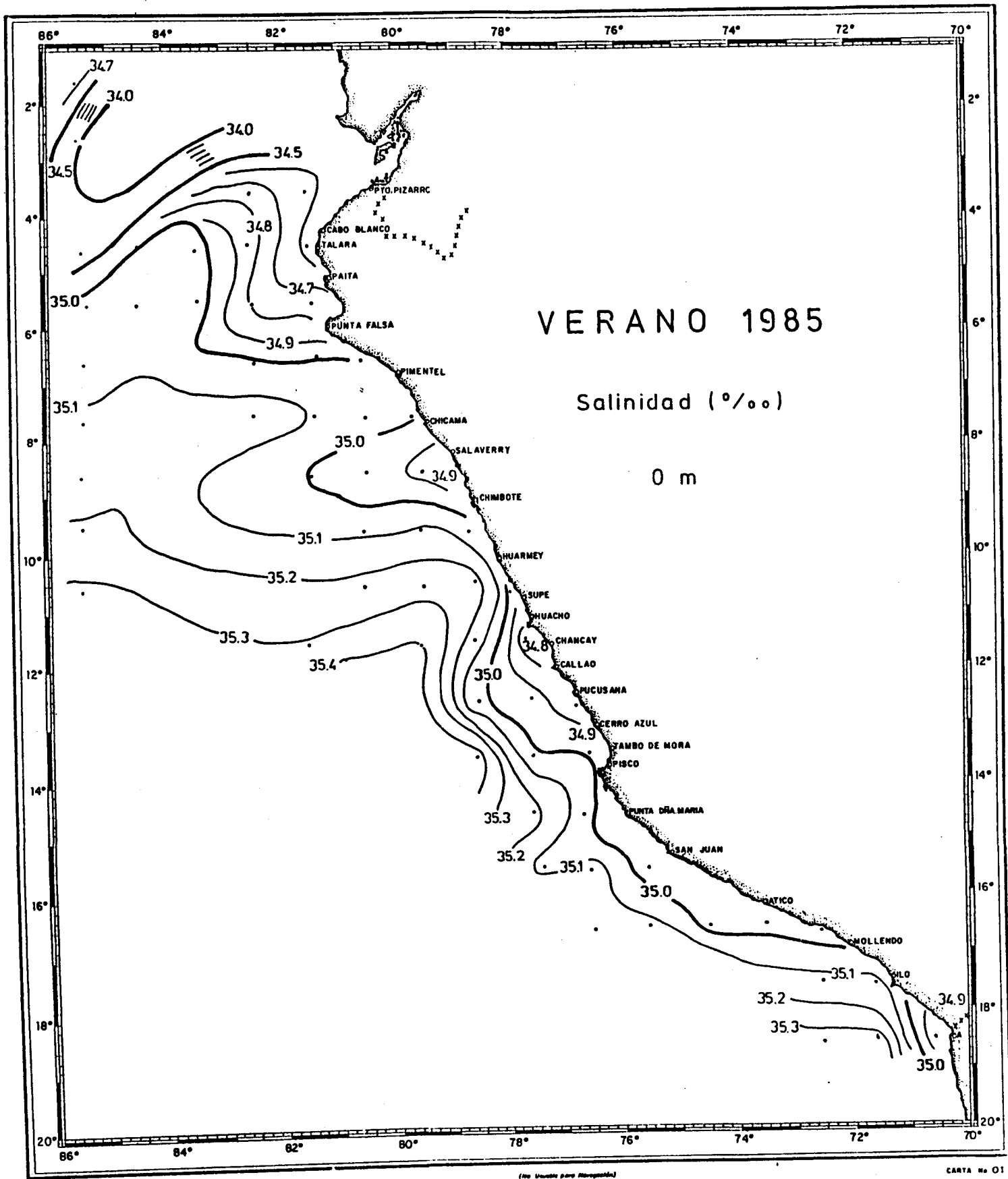


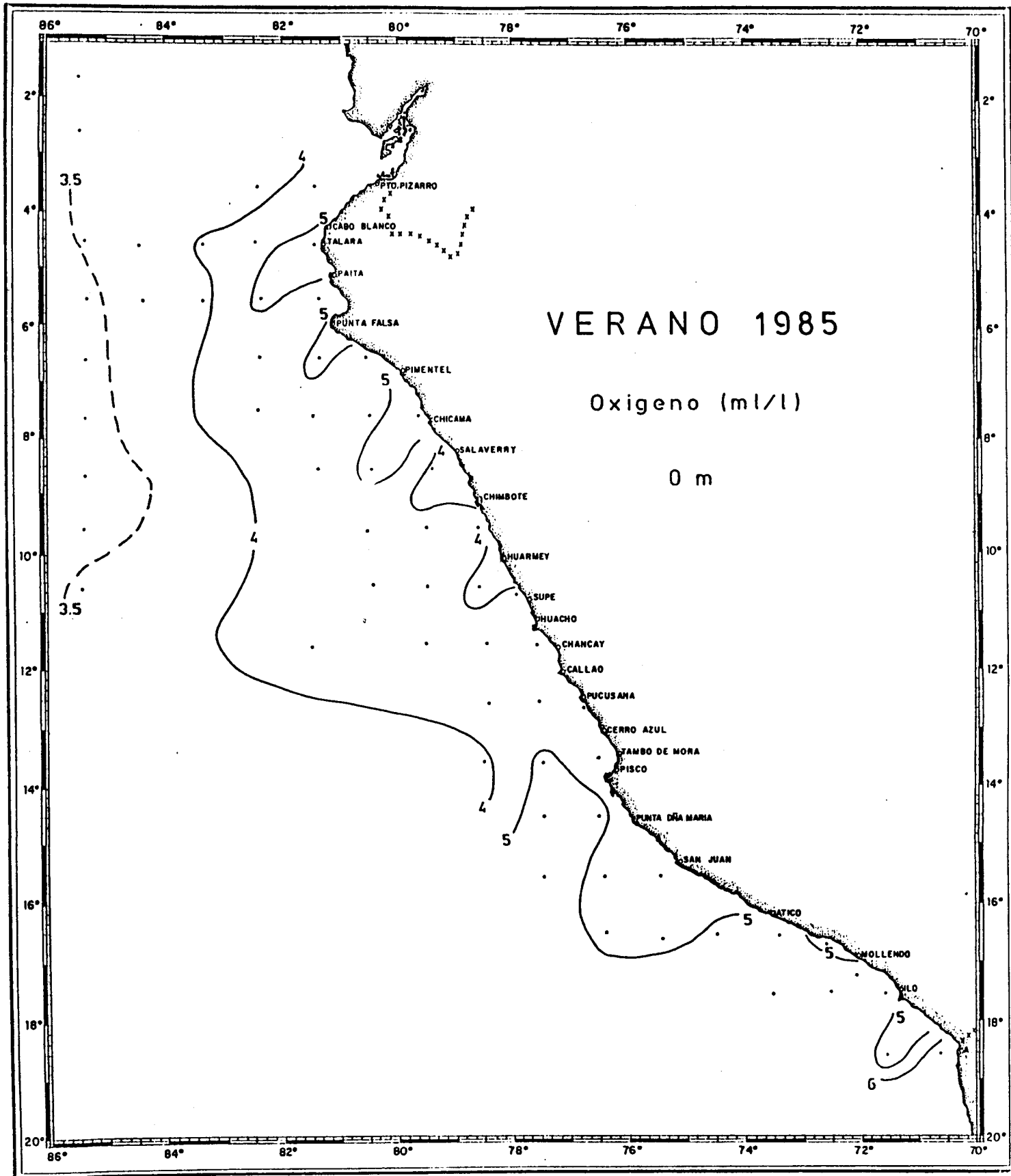


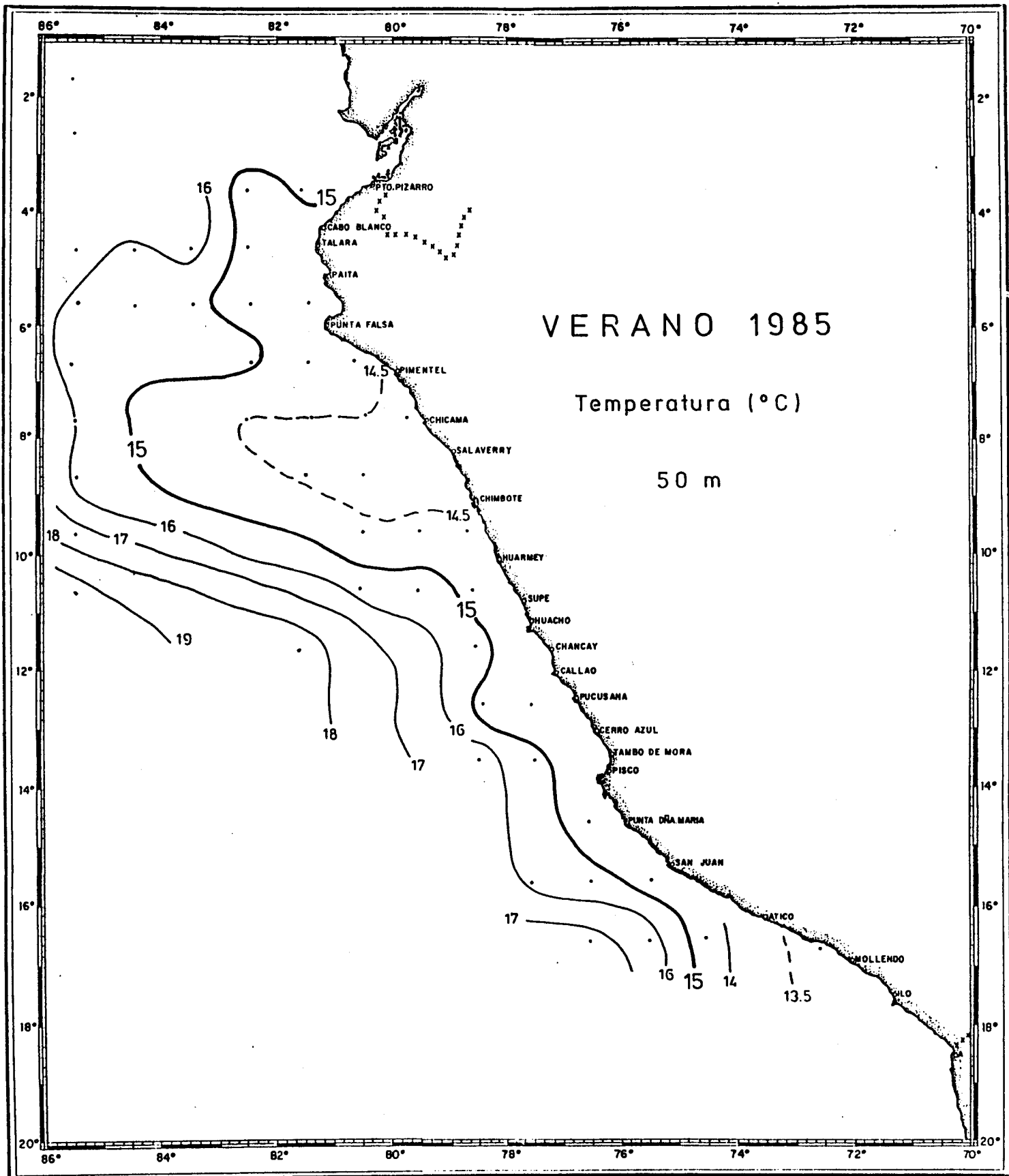








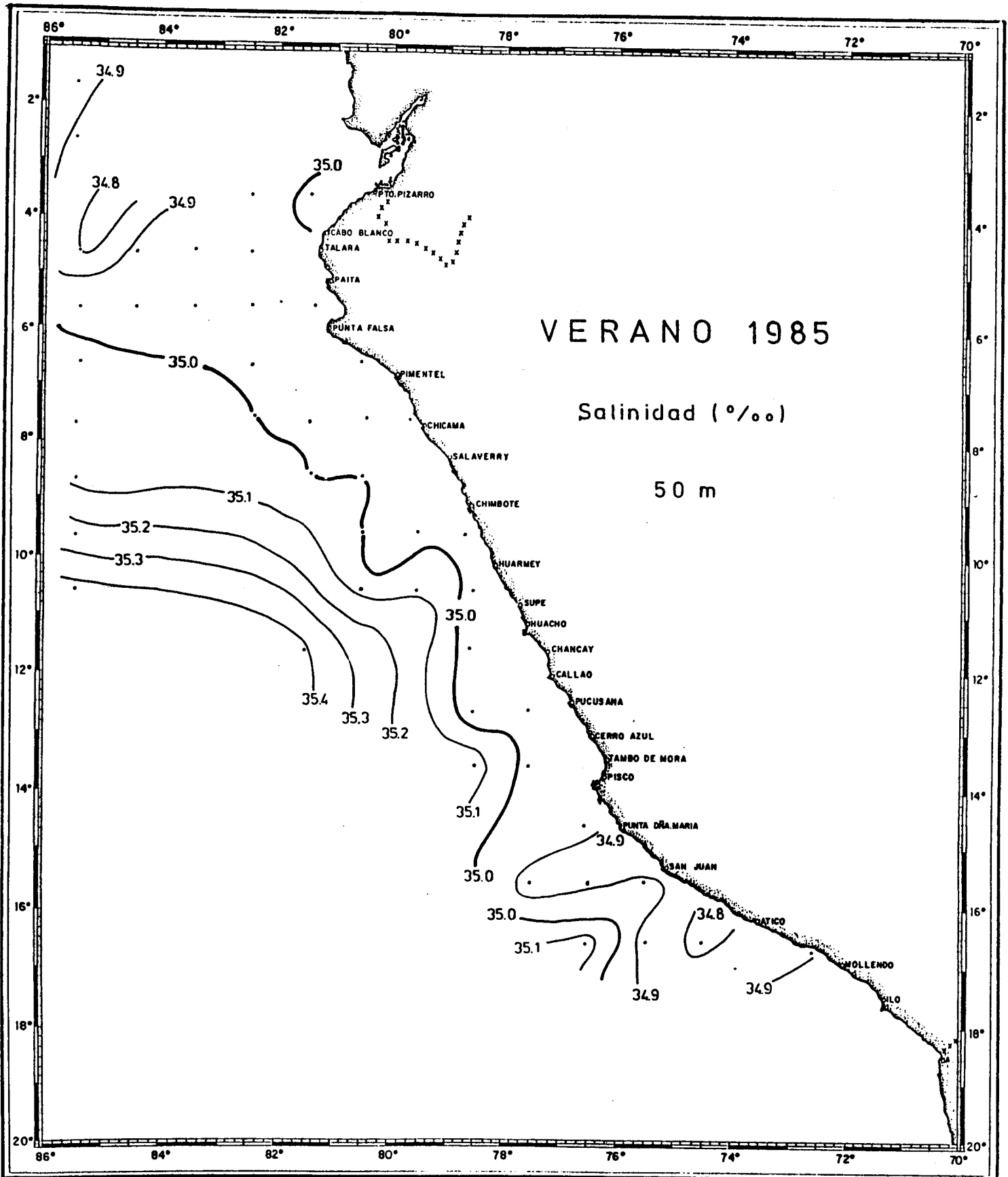


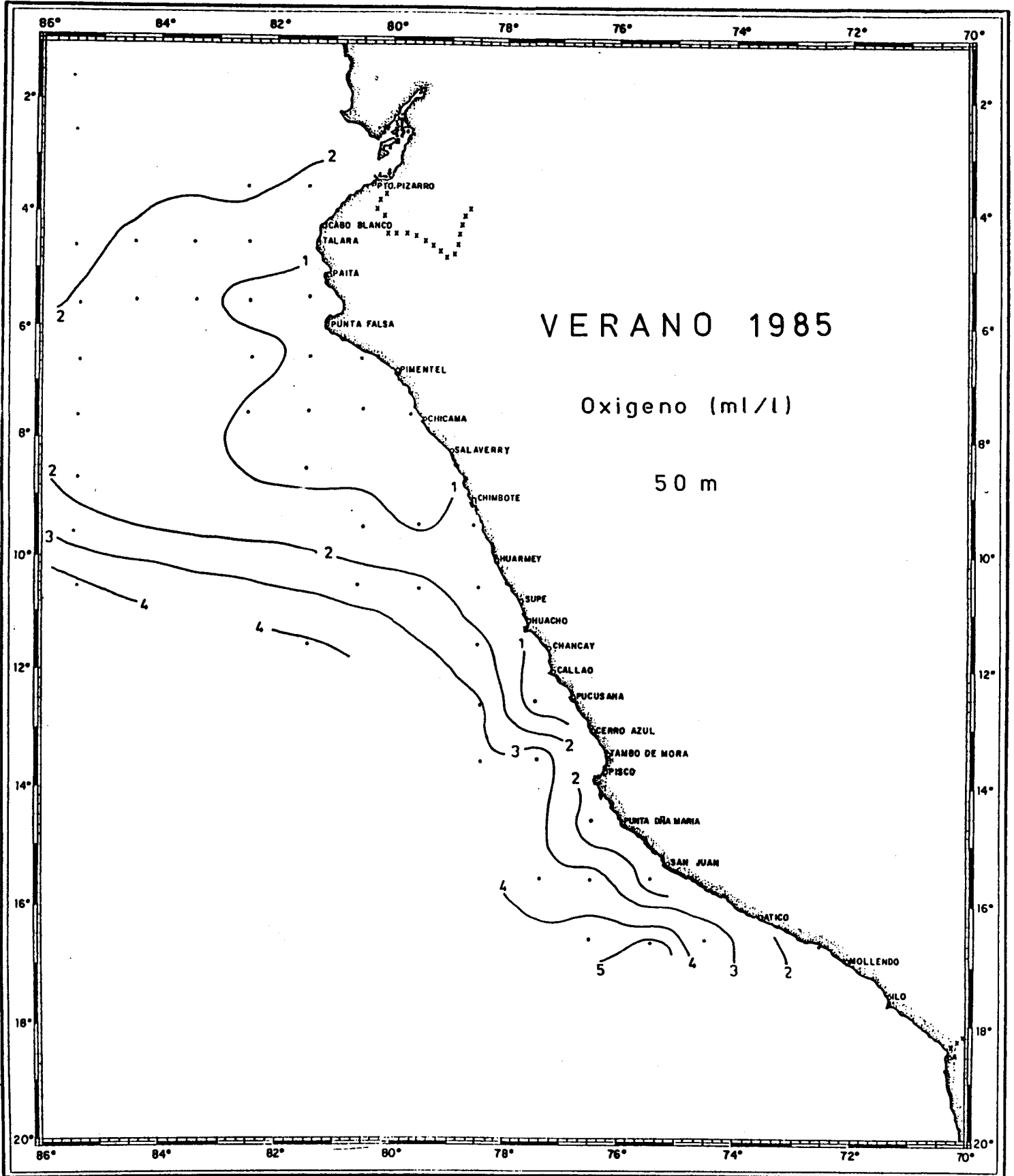


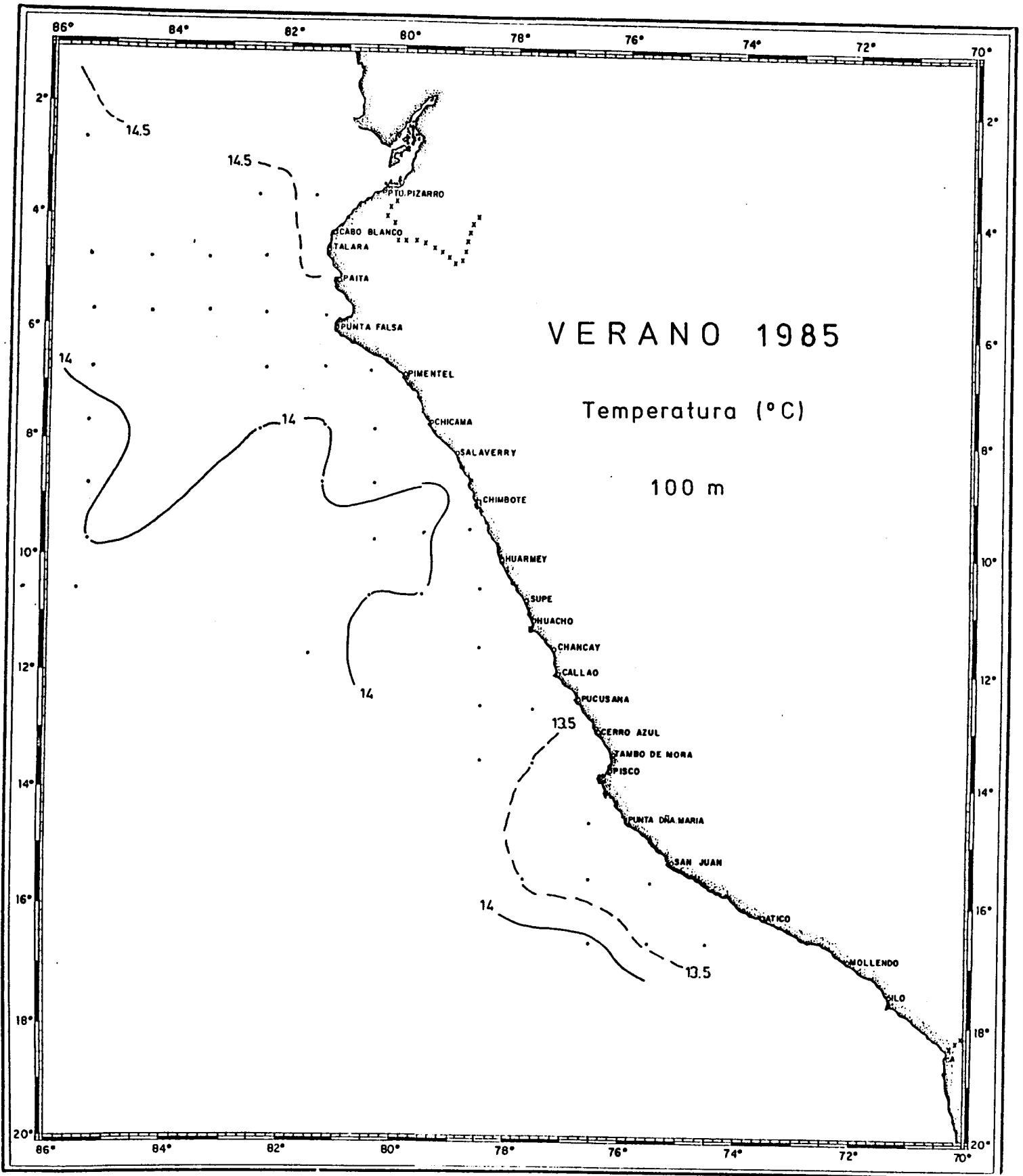
VERANO 1985

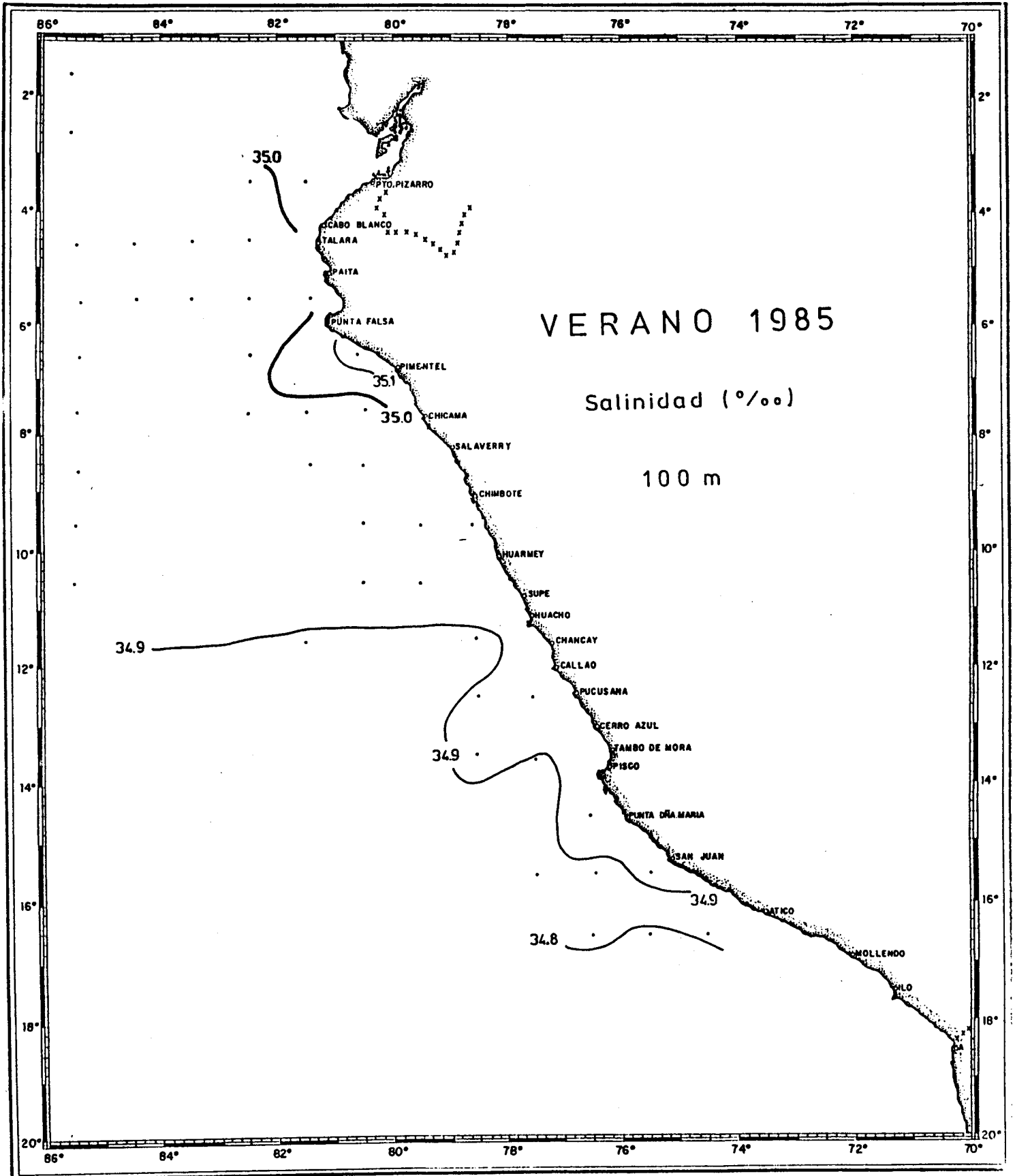
Temperatura (°C)

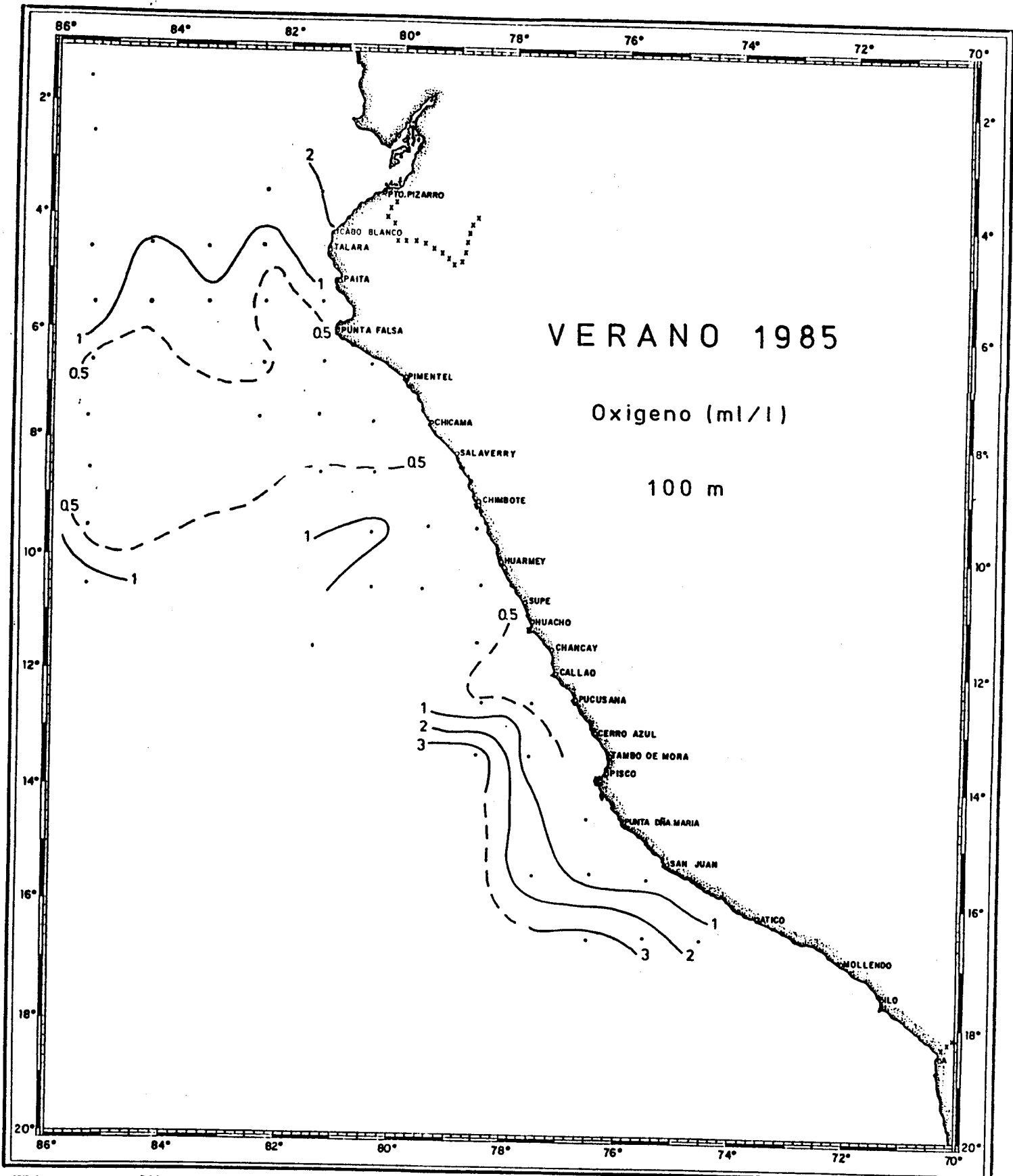
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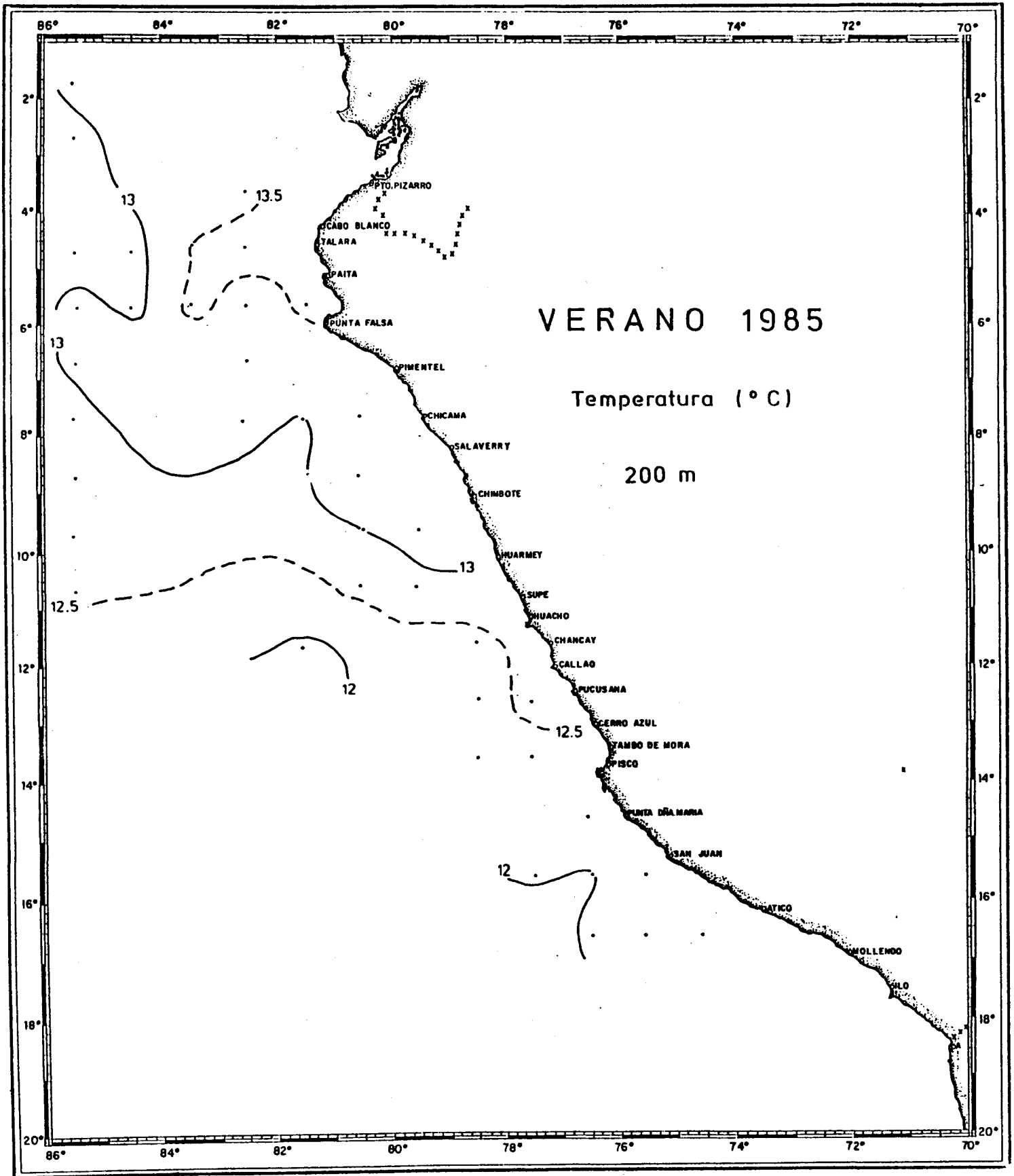


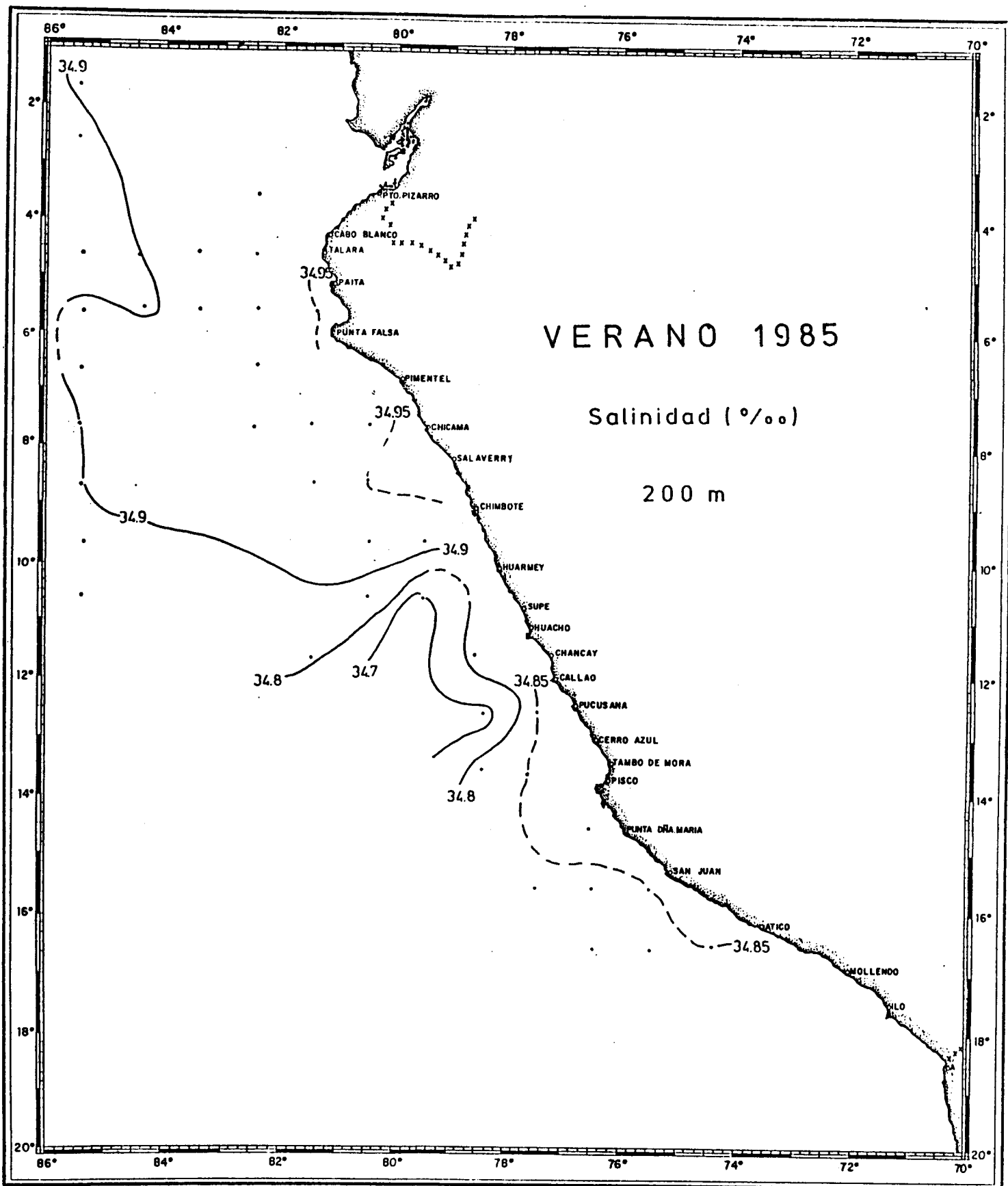


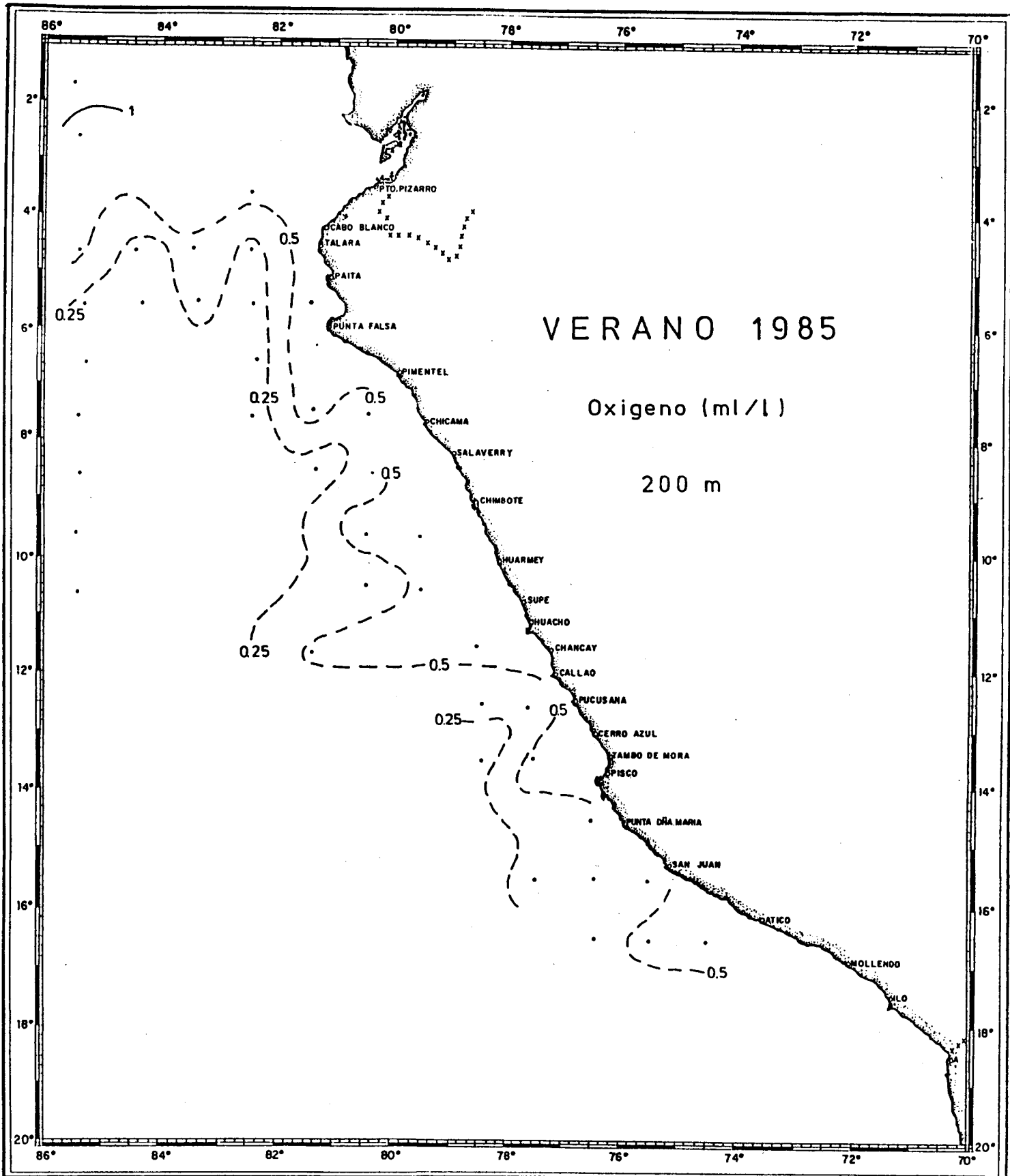


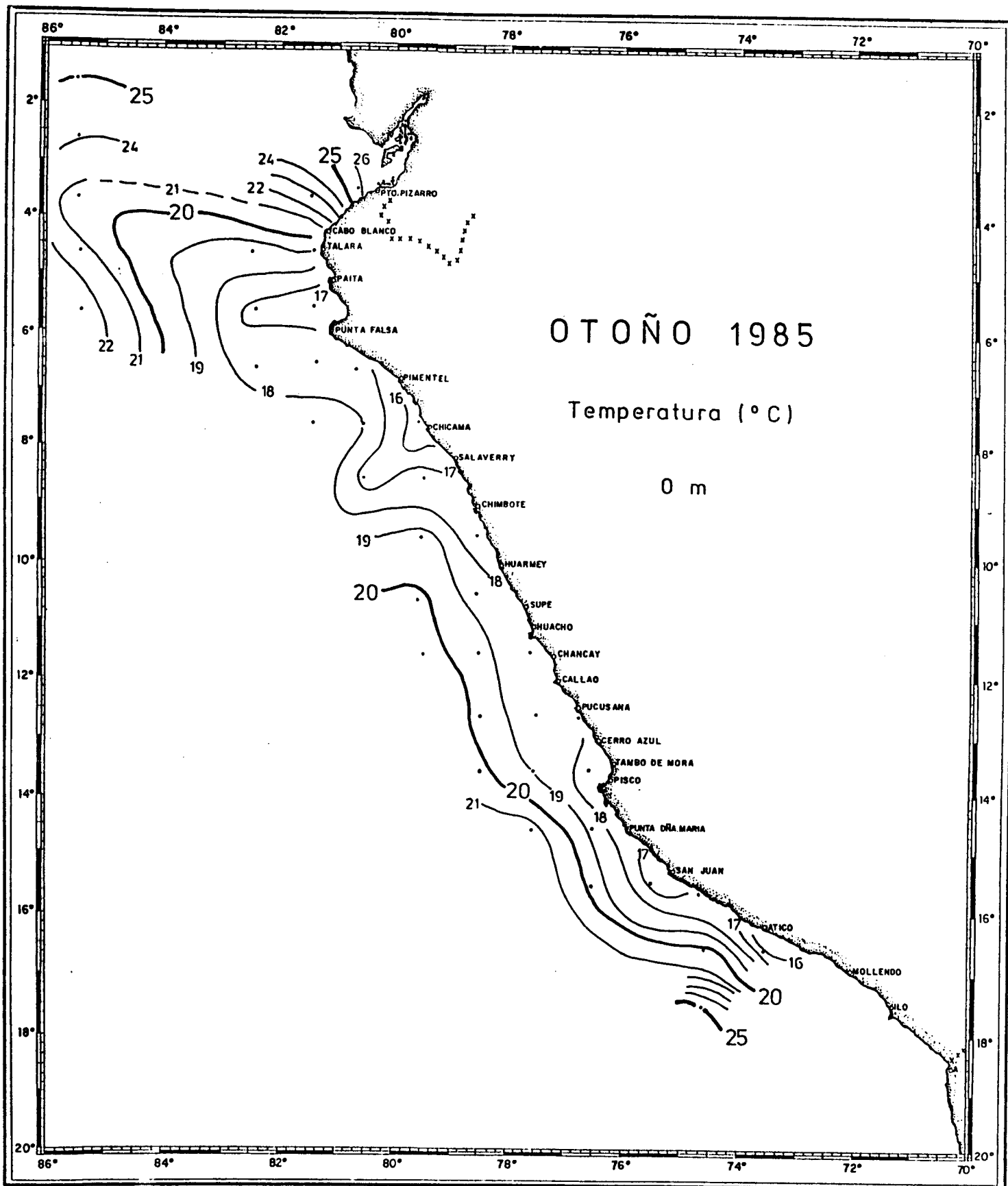


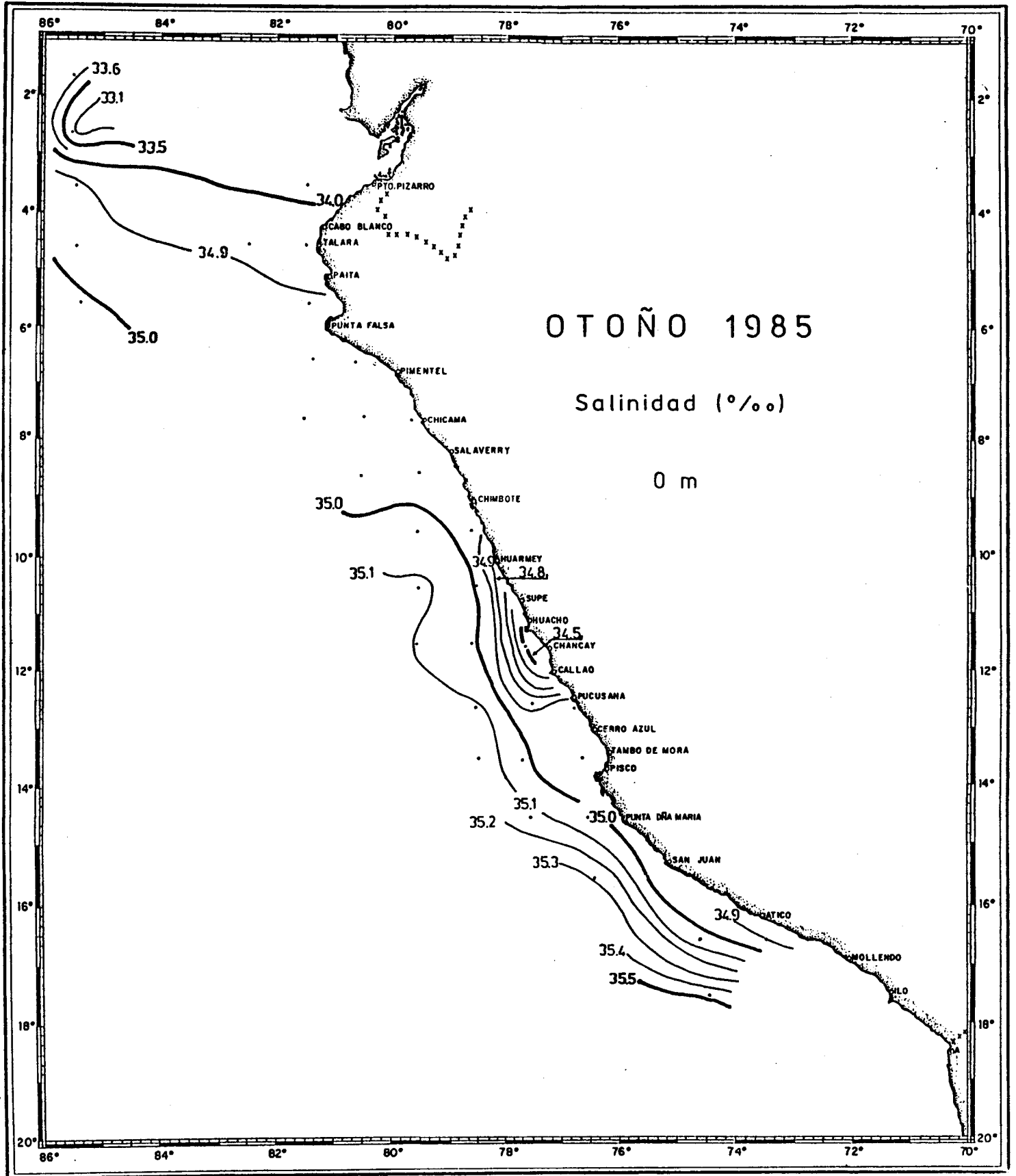


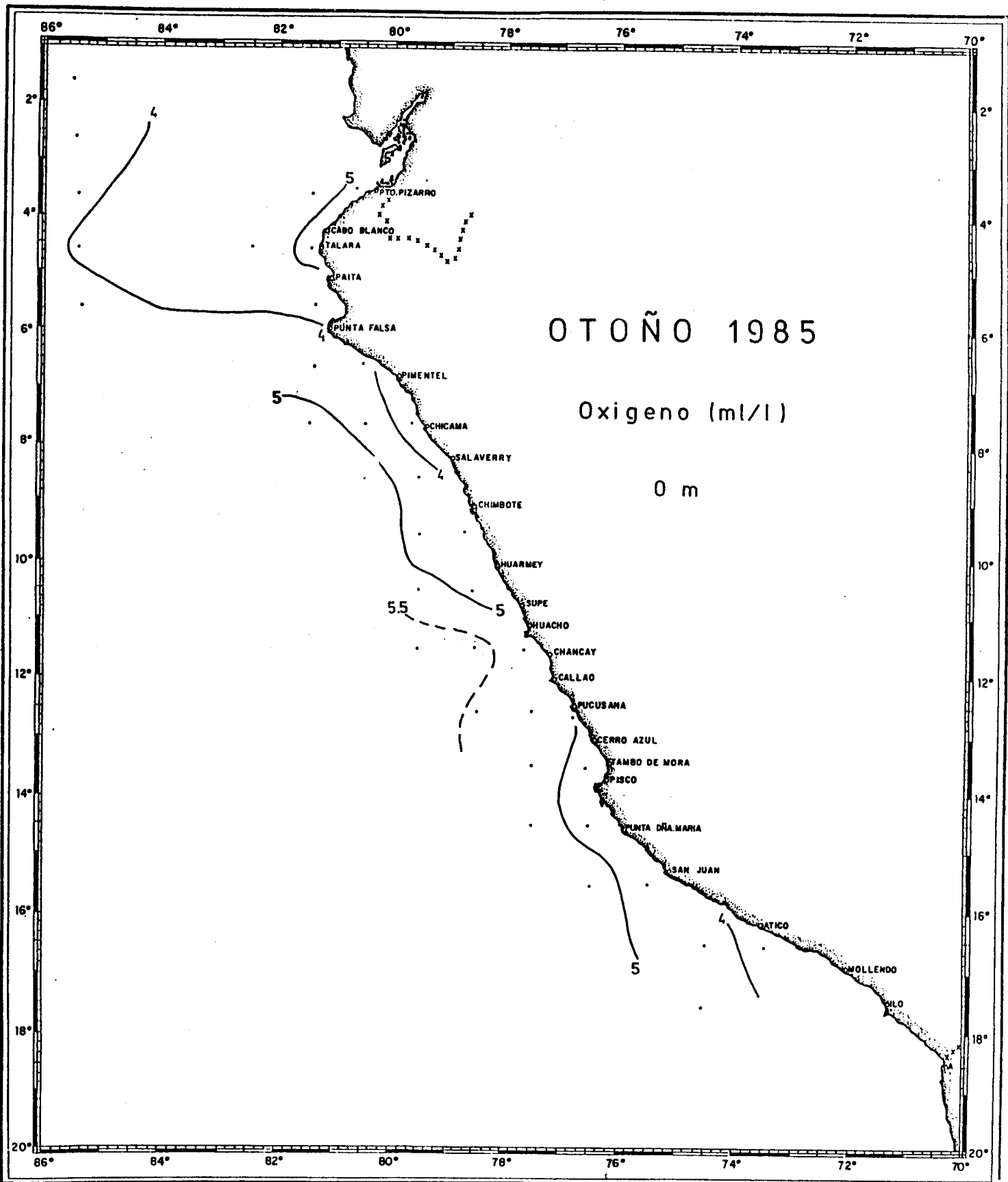


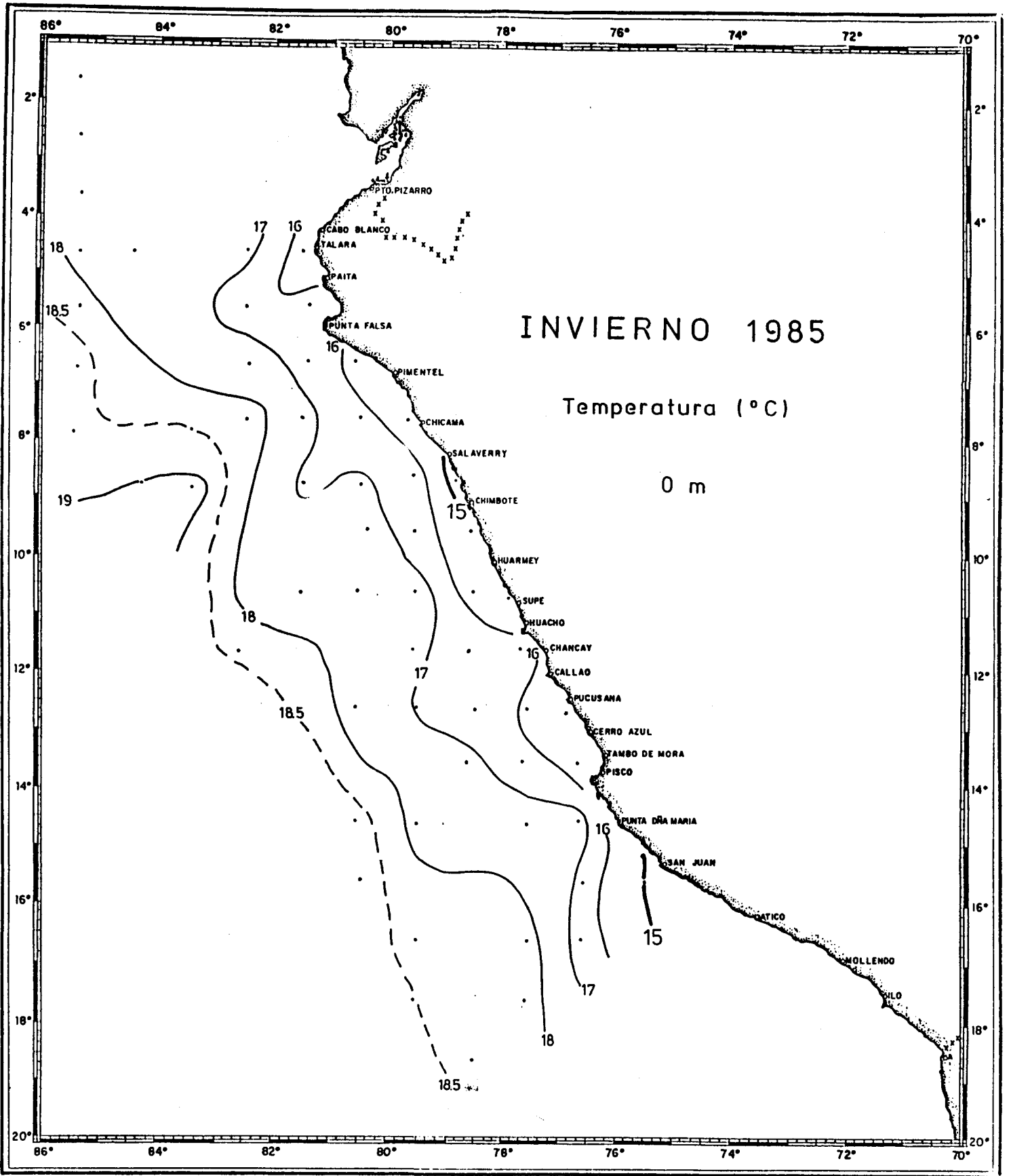


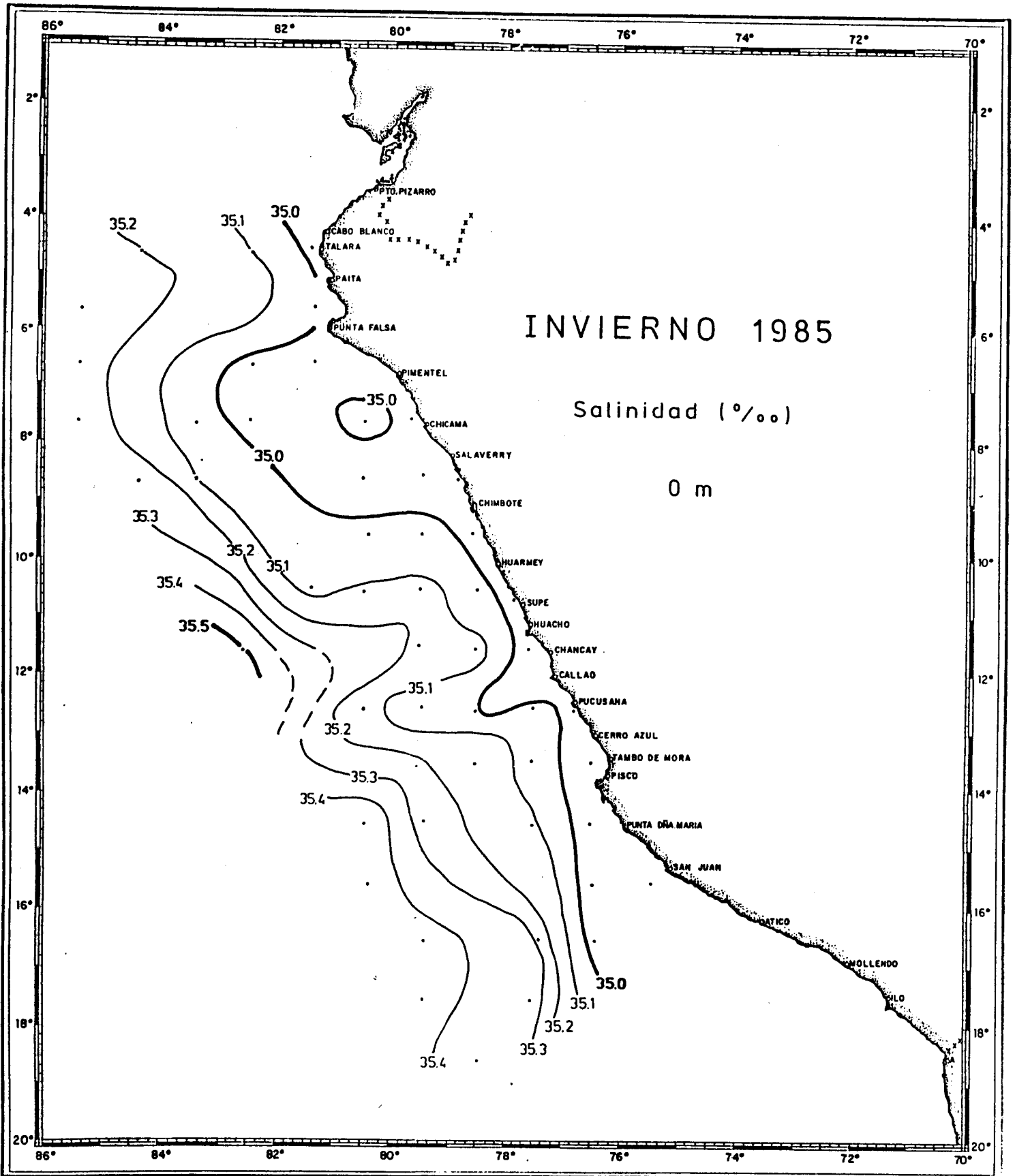


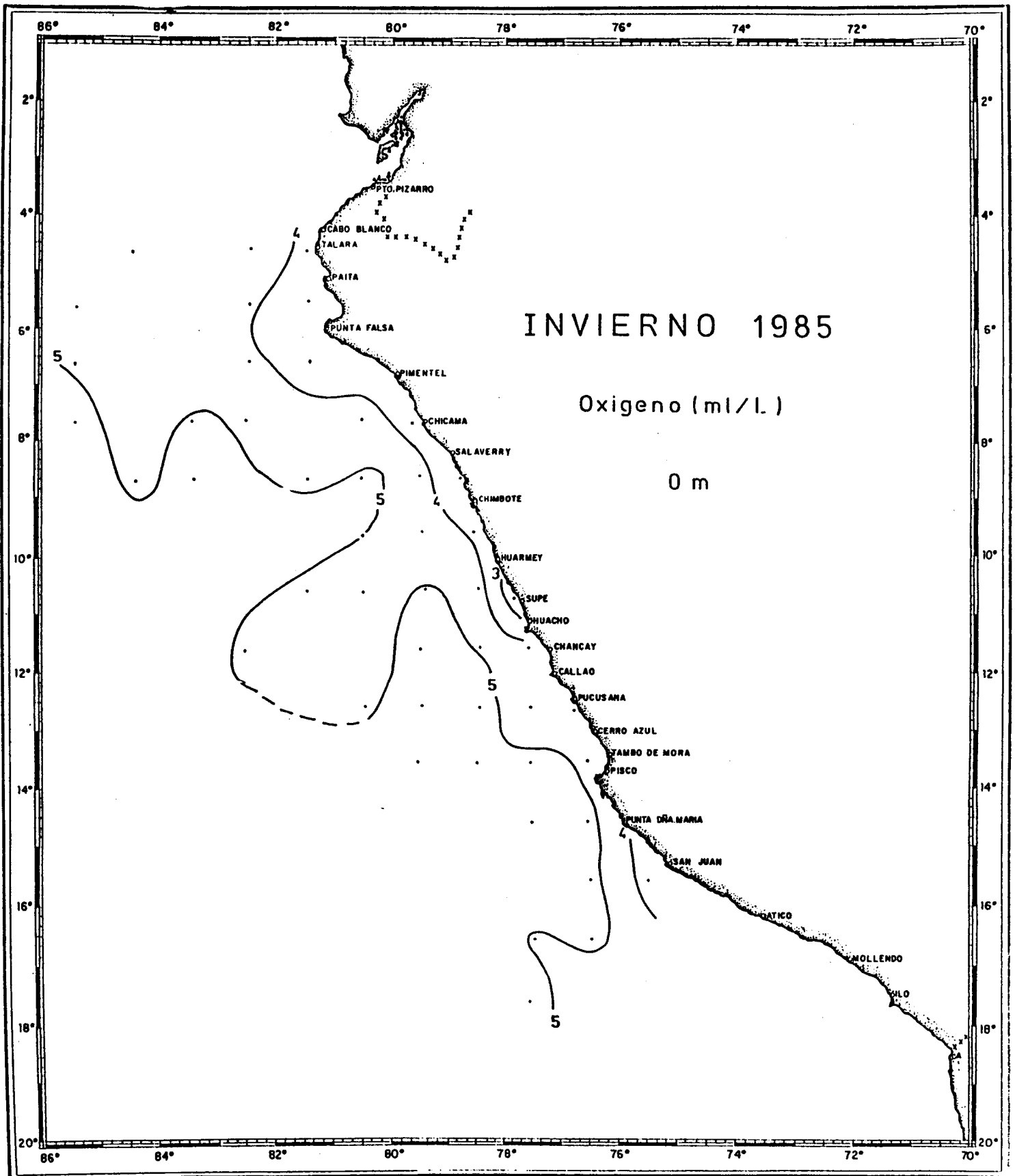


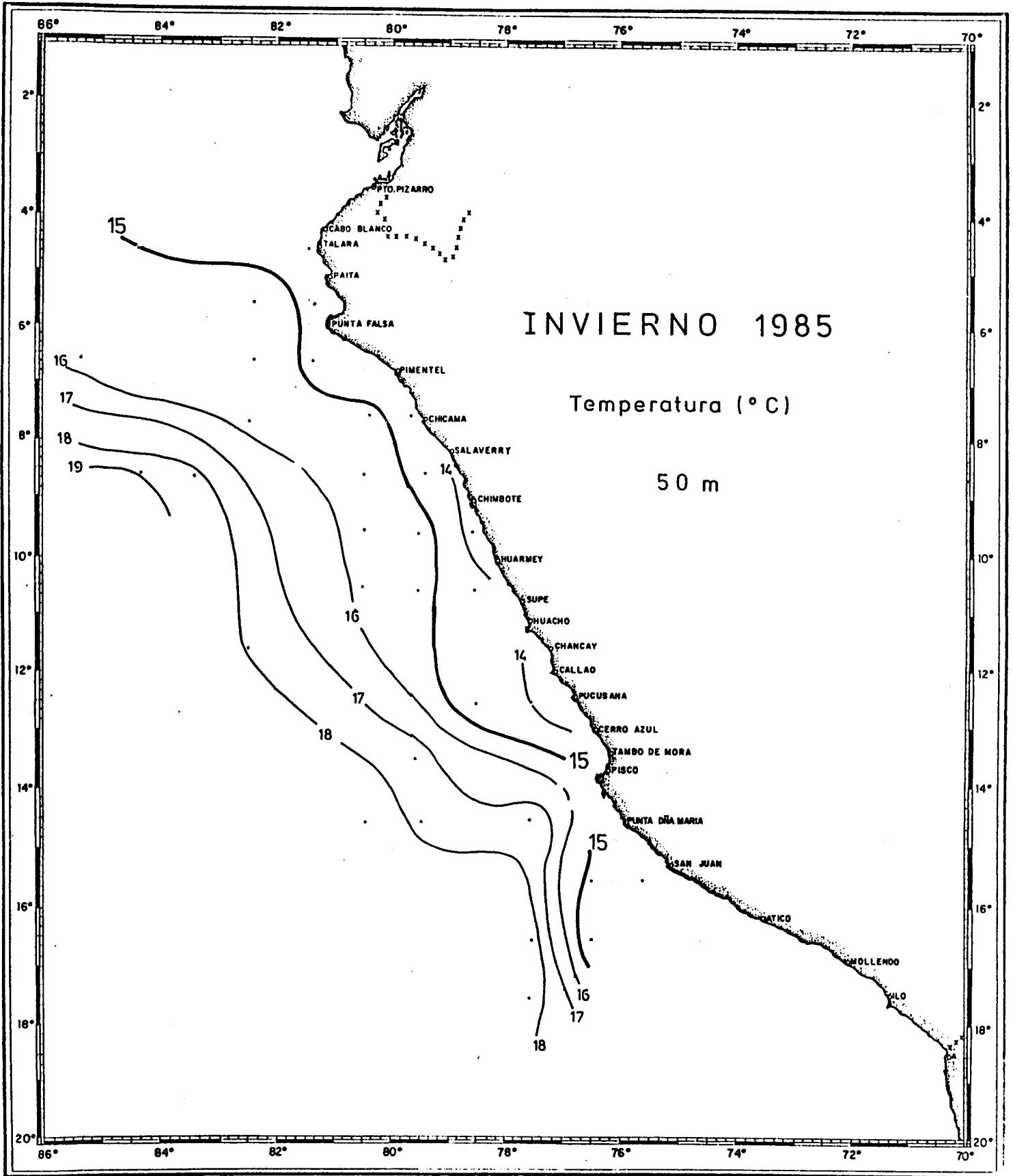


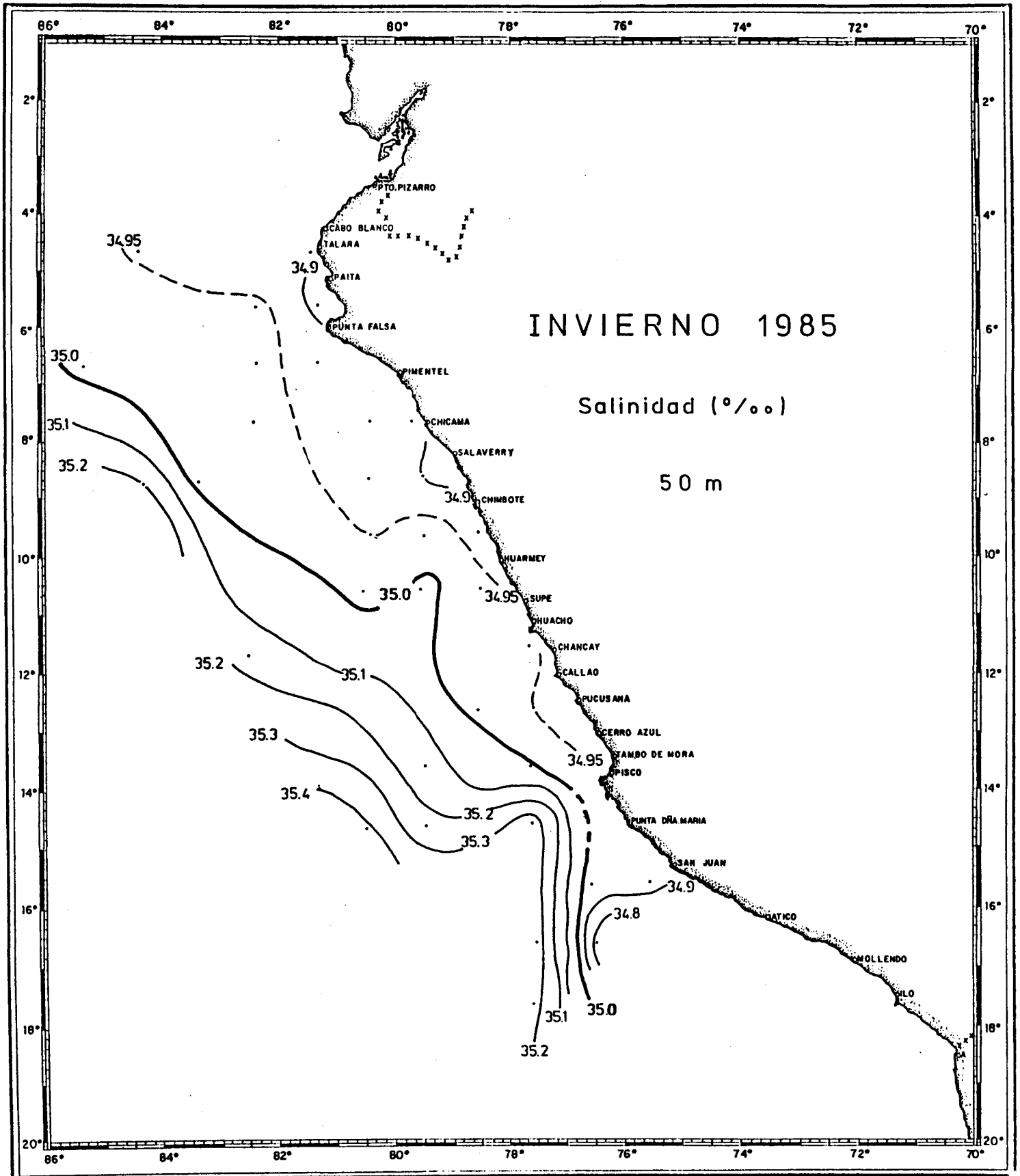


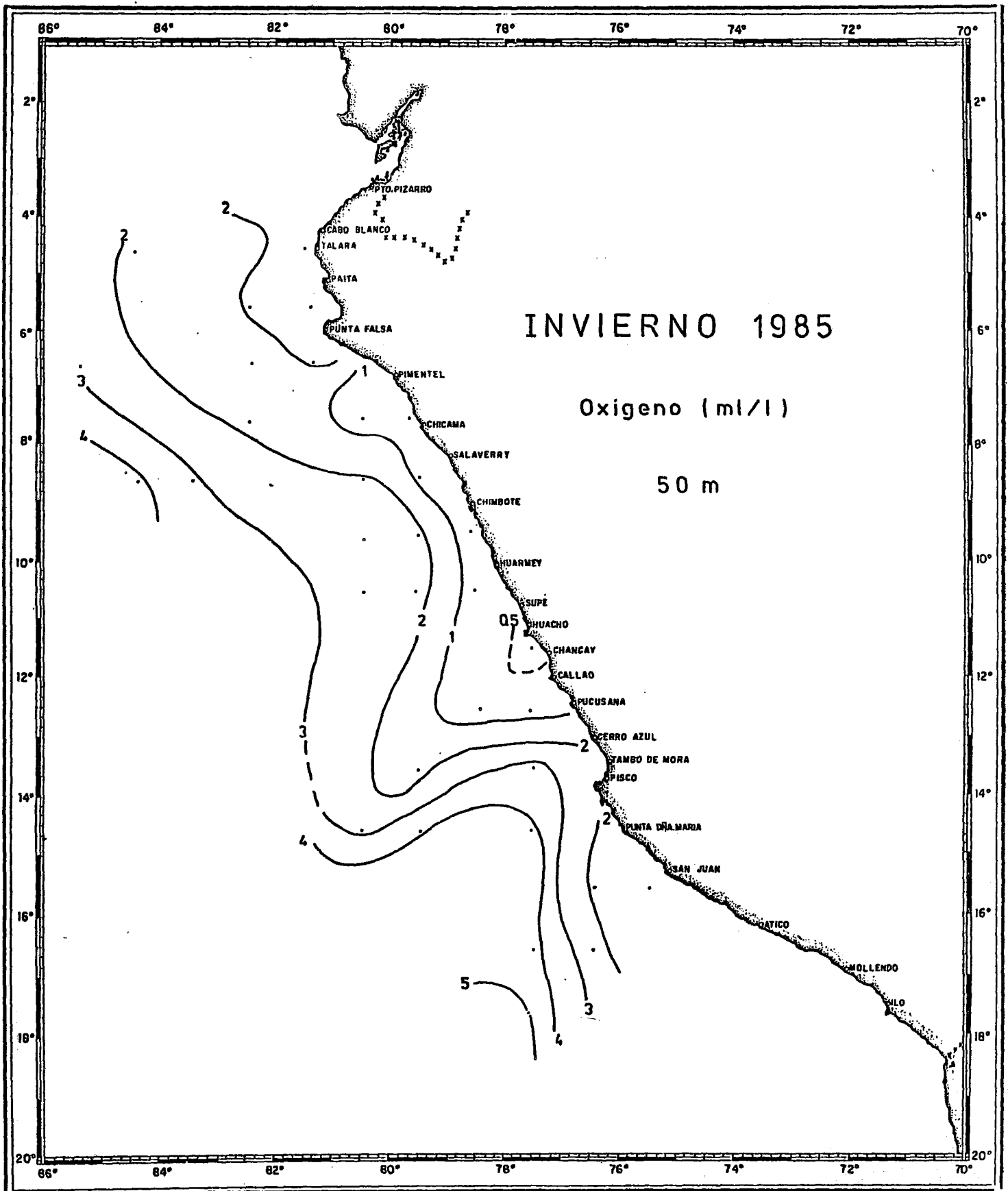


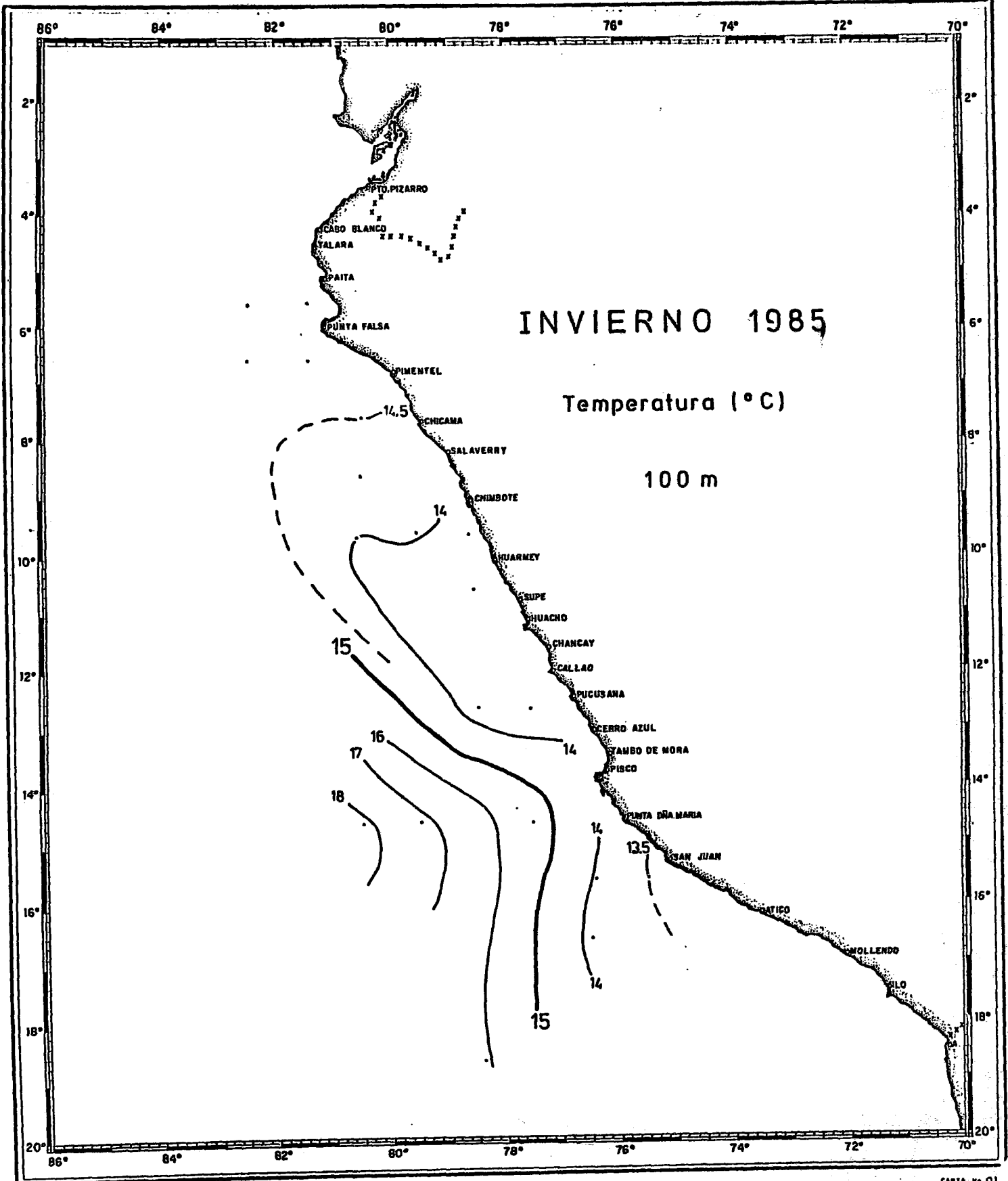












INVIERNO 1985

Temperatura (°C)

100 m

