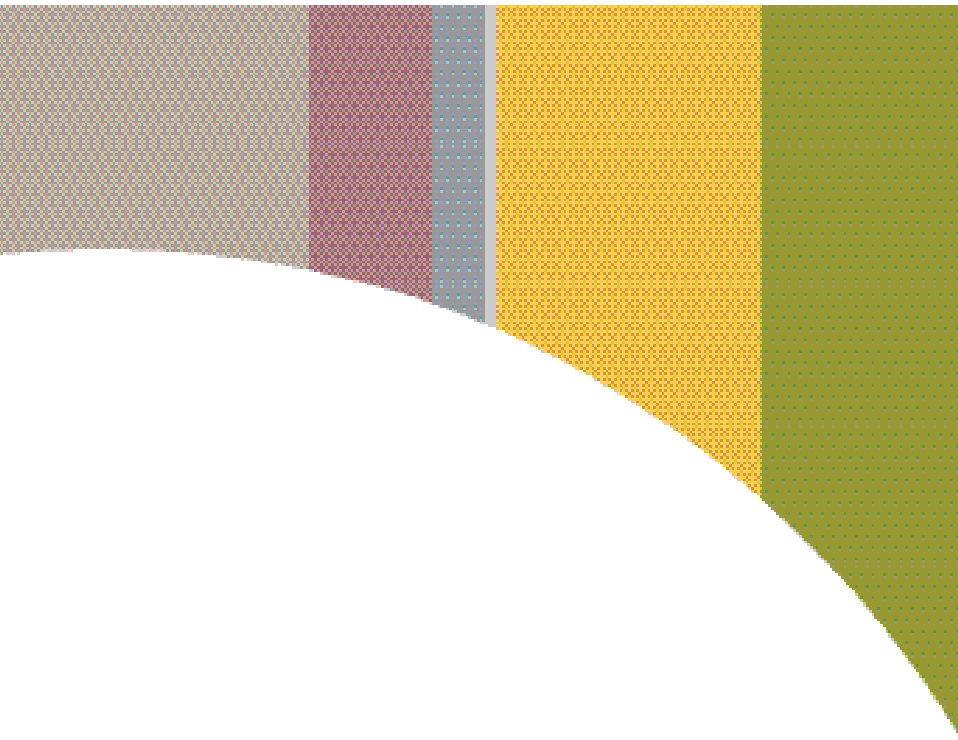


Korean Coastal and Offshore Fishery Census



[]



해양수산부
국립수산과학원
National Fisheries Research &
Development Institute



가 240

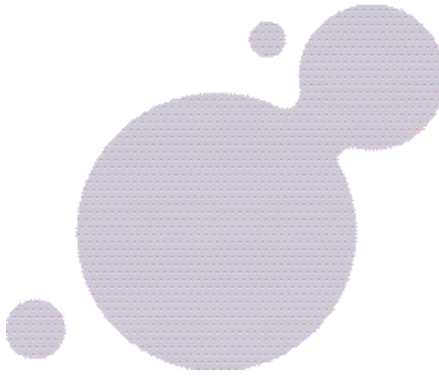
가

가

2002 ~ 2004 3

가

2004. 12.



發刊辭

가
,

가

EEZ

EEZ

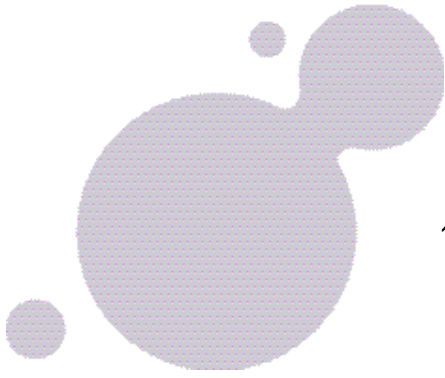
2002 2004

()가

가

EEZ

2004. 12.



1.

2002 2

,
, 2002 5 ,
, ()
, ,
.

, 2002 9 2004 12 ,
.
: 11

2.

가.

- (1) : 가 , ,
, ,
- (2) : 가 , ,
- (3) : () 가 ,
, ,
- (4) : ,
, .

3.

가
2003 12 , 2002 12 .
2004 8
2003 12
1
1 , 8 .
1 9 .

.	.....	15
. 가	.....	15
.	.....	15
.	가	16
.	.....	17
.	.....	17
.	.....	17
.	.....	17
.	.....	17
1.	.....	21
2.	.....	21
3.	.....	22
4.	.....	22
. 가	.....	25
1. 가	.....	25
2.	.....	27
.	.....	29
1. 가.	.....	29
.	.....	37
.	.....	42
.	.....	50

.	.....	53
.	.....	55
.	.....	59
.	.....	63
.	.....	70
.	.....	74
.	.....	78
.	.....	81
.	.....	84
.	.....	88
.	.....	91
.	.....	93
.	.....	95
.	.....	96
.	.....	98
2.	.....	103
가.	.....	103
.	.....	106
.	()	110
.	.....	111
.	.....	113
.	.....	115
3.	(,)	117
가.	.....	117
.	.....	118
.	.....	119
.	.....	120
.	.....	122
.	.....	124
.	.....	125
.	.....	127

.	.....	130
.	.....	132
4.	.....	133
가.	.....	133
.	.....	134
.	.....	135
.	.....	136
5.	.....	137

가

1. 가	.....	140
2. 가	.....	142
3.	.....	144
4.	.....	146
5.	.....	148
6.	.....	150
7.	.....	152
8.	.....	154
9.	.....	156
10.	.....	158
11.	.....	160
12.	.....	162
13.	.....	164
14.	.....	166
15.	.....	168
16.	.....	170
17.	.....	172
18.	.....	174
19.	.....	176
20.	.....	178
21.	.....	180

22.	.....	182
23.	.....	184
24.	.....	186
25.	.....	188
26.	.....	190
27.	.....	192
28.	.....	194
29.	.....	196
30.	.....	198
31.	.....	200
32.	.....	202
33.	.....	204
34.	.....	206
35.	.....	208

.		
1.	.....	211
2.	.....	228
3.	.....	248
4.	.....	255
5.	.....	257

.		
1.		
가.	.....	259
.	.....	275
.	.....	291
2.		
가.	.....	301
.	.....	312

CHAPTER 1

가

가

가
 가 2003 12 31 가 가 (2002
 12 31) (2003 12 31)

2
 2002 10 2003 12
 가
 2002 10 2004 6

(Mitutoyo, CD-15) 0.1cm
 (Sartorius, M-5500S) 0.01g
 (maturing), (mature), (spent) 4 (immature),
 index : GSI / x100 (gonadomatic)
 【 (w)/ (W)x (w) 】【

Gilson (Love and Westphal, 1981)

가 1cm
 , 50% logistic

가

(CPUE)

가 가

가

(ABC)

F_{ABC}

, ABC

TAC

ABC

(Zhang and Lee, 2001).

가

5

가

가

1

(B)

(MSY)

(B_{MSY})

(F_{MSY})

가

가

1

B_{MSY}

(B/B_{MSY}>1)

(a<B/B_{MSY}<1),

(B/B_{MSY} a) 3가

(F_{ABC})

2

(F_{ABC})

3

F_{0.1}

F_{ABC}

ABC

4

(CPUE)

가

ABC

가

5

(ABC)

50%

가

가

()

가

ABC

가

1 3

F_{ABC}

(1)

$$ABC = \sum_{i=0}^t \frac{B_i F_{ABC}}{M + F_{ABC}} (1 - e^{-(M + F_{ABC})}) \dots \dots \dots (1)$$

, B_i i

, M

, F_{ABC}

, r 가

, t

가

4 5

ABC

1.

mm

2.

3 , 3~5 , 5~8 3 mm

3.

m

1.

가

가

1775

52.0% 923

718

40.5%

7.5%가

				가
21.9%	,	14.0%,	가 13.4%	,
1.8%	가	.	가	,
(11.2%)	,	21.6%	(19.4%),	(17.2%),
		718	가	(17.5%)
126	,		16.3%	117
			113 111	가
	3	,		9 29
		1.3%	4.0%	.

2.

				가
.	,	,	가	,
.
,	,	,	,	11
,	,	,	,	,
.
	987			
가	.	가 103	가 276 , 212	,
			10.4%	,

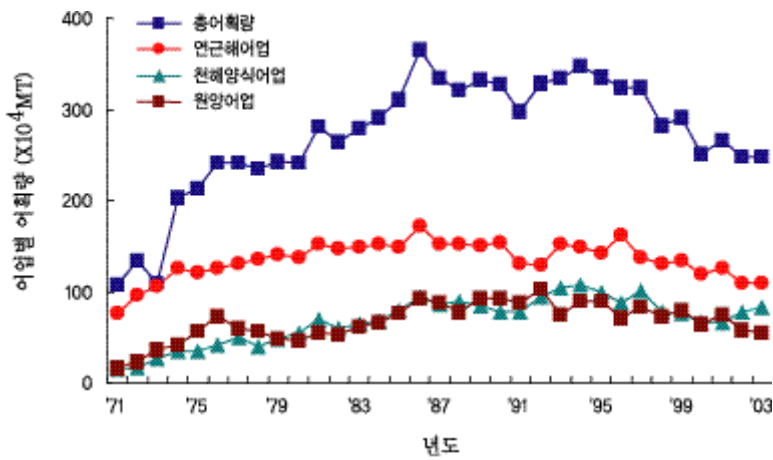
CHAPTER 2

·
·
·
·
·
·

가

가

1.

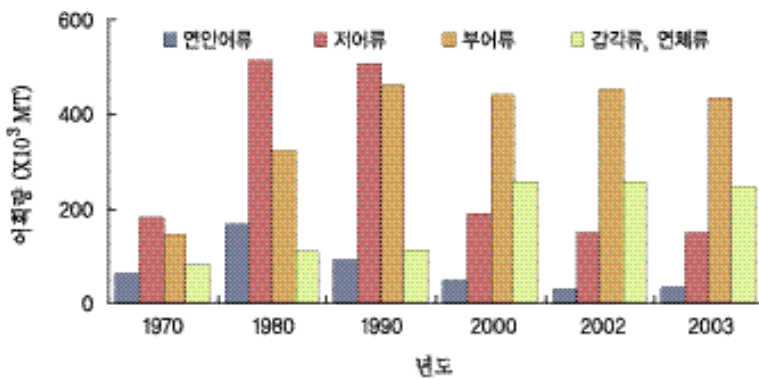


2003

248
1986
32%
29%, 1995
109
44%

1-1.

2.



1980 1990
가 50
,
10
1970 15
가 1990
45 2000
가

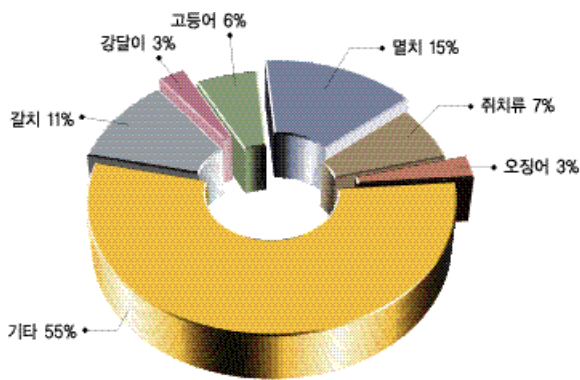
1-2.

2000

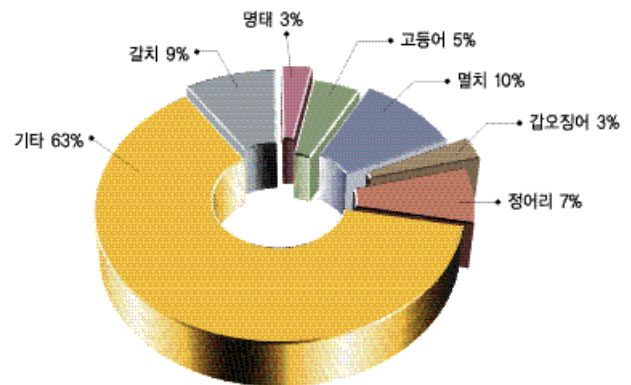
25

3.

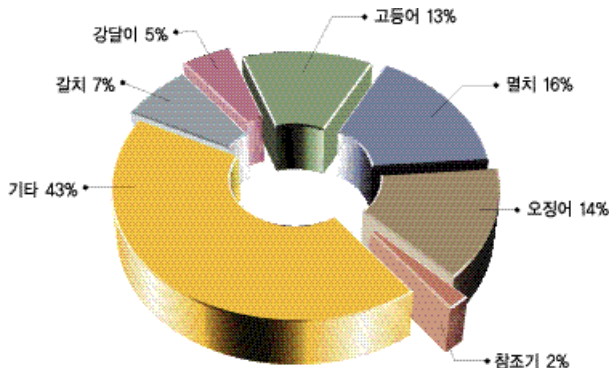
1975 가 15.5%
 (10.6%), (7.2%), (6.2%) 1985 가 9.6% 가
 , (8.5%), (8.2%) .
 1995 (16%) 가 (14%), (13%),
 (7%) 1985 . 2002 1995
 (22%), (21%), (13%), (6%) , 1995
 가 가 . 2002 1975
 , 1985 ,



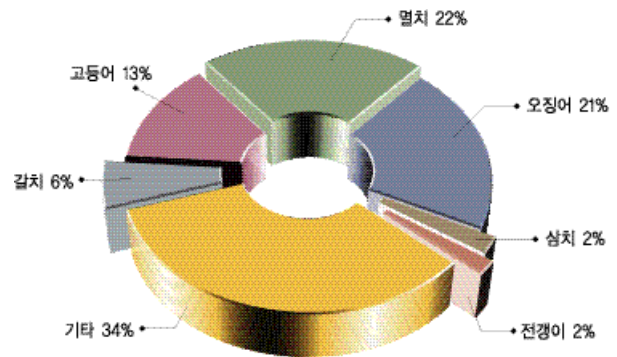
1975 (1,132,333)



1985 (1,494,514)



1995 (1,360,701)



2002 (1,088,835)

1-3.

4.

(1998 2003) 1998 917,286 가 ,
 1999 913,422 , 2000 772,161 , 2001 847,645 , 2002 2003 765,278
 , 742,205 .

6 , 197,880 가
 (122,514), (101,621), (89,005),
 (77,741), (74,203), (46,150) . 2003
 가

1-1. (: ,)

	1998	1999	2000	2001	2002	2003	
	917,286	913,422	772,161	847,645	765,278	742,205	826,333
	205,037	229,927	179,985	231,821	181,849	158,662	197,880
	98,964	134,064	127,113	134,971	123,412	116,559	122,514
	105,085	105,221	93,923	87,842	79,219	62,740	89,005
	70,944	92,141	81,133	75,365	73,063	73,802	77,741
	18,095	12,765	11,796	9,275	9,816	6,746	11,416
	43,528	47,856	51,647	50,809	53,368	29,690	46,150
	118,960	94,173	75,198	96,951	90,492	133,954	101,621
	12,464	11,806	12,202	15,180	16,142	14,755	13,758
	19,934	15,514	12,345	9,316	9,310	6,977	12,233
	17,091	18,065	13,528	12,004	11,446	11,400	13,922
	118,960	94,146	65,128	66,951	59,144	40,887	74,203
	37,967	25,465	19,165	16,683	12,727	22,797	22,467
	3,253	2,858	1,876	1,727	11,056	12,617	5,565
	21,949	15,298	14,150	9,442	9,362	14,797	14,166
	5,325	2,750	4,307	878	494	2,224	2,663
	9,599	6,780	5,097	24,878	18,553	27,002	15,318
	5,280	601	-	-	-	10	982
	4,851	3,992	3,568	3,552	5,825	6,586	4,729

20% , (1998
 2003) 1999 189,790 가 , 1998 184,400 , 2000 181,240
 , 2001 166,033 , 2002 2003 157,491 , 140,690

6 , 87,508 가
 (23,028), (22,065), (16,696),
 (7,567) . 2003

1-2. (: ,)

	1998	1999	2000	2001	2002	2003	
	184,400	189,790	181,240	166,033	157,491	140,690	169,941
	2,403	1,812	1,767	2,965	3,195	2,767	2,485
	26,412	28,070	33,817	27,409	22,462	-	23,028
	92,190	107,672	90,556	89,501	82,764	62,362	87,508
	19,760	22,559	22,751	21,714	27,123	18,485	22,065
	4,318	665	688	1,927	1,180	-	1,463
	21,858	21,255	25,374	16,963	14,723	-	16,696
	17,459	7,757	6,287	5,554	6,044	11,672	9,129
	-	-	-	-	-	45,404	7,567

[. 가]

1. 가

가.

21 4,132 가가 , 가915 가
 , 865 , 855 , 290 , 230 , . 744
 , 740 , 579 , 577 , 463 , 455 .

2-1. 가 (2003 12 31)

	4,132	4,637	455	392	93	44	577	346	204	579	744	740	463
	35	48	27							12	-	9	-
	45	50	29	9	-	-	-	-	-	7	-	5	-
	35	42	1	-	-	-	20	-	-	-	21	-	-
	37	46	7	-	12	-	-	-	-	21	-	6	-
	10	13	-	-	-	-	-	-	-	8	-	5	-
	50	60	55	-	-	-	-	-	-	-	-	5	-
	35	41	3	-	1	-	11	-	-	-	26	-	-
	30	35	35	-	-	-	-	-	-	-	-	-	-
	60	57	2	1	-	-	7	6	-	1	19	20	1
	915	1,011	120	37	39	1	246	22	11	43	317	88	87
	80	100	2	-	-	-	-	-	-	16	-	82	-
	855	968	45	121	24	6	173	54	27	155	202	74	87
	290	318	7	66	1	5	-	88	33	115	-	3	-
	60	69	2	-	4	-	4	2	-	7	26	5	19
	10	14	-	-	-	-	-	-	-	-	-	-	14
	230	237	7	11	-	4	7	14	8	52	11	123	-
	90	90	8	-	-	-	-	-	-	1	-	81	-
	190	305	8	38	1	7	48	22	5	25	75	75	1
	40	71	3	6	-	1	1	2	2	27	5	7	17
	170	173	-	49	-	19	-	71	34	-	-	-	-
	865	889	94	54	11	1	60	65	84	89	42	152	237

15 64,247 가 84,311 ,
 43,967 가 25,785 , 10,554 , 1,396 ,
 552 , . 22,769 , 21,689 , 10,082 , 6,648 , 5,077

2-2.

가

(2003 12 31)

	64,247	84,311	3,150	1,959	1,507	5,077	10,082	3,667	21,689	6,648	22,769	5,006	1,087
	19,273	25,785	795	702	495	2,358	3,924	1,399	4,888	3,148	6,615	791	312
	850	552		69	43		238	193			7		2
		98		36	12		50						
		98		7			7	3	79				2
	426	440	9			34	39	20	124	26	151	28	9
		3								3			
	10,672	10,544	804	117	69	264	480	83	1,865	1,564	4,661	29	408
	781	1,053	2			4			46	21	48	916	5
		350	51									246	3
()	1,475	1,396				18	1,021	366					9
()	17	18											
		3								3			
		4	2				1						
	30,753	43,967	1,487	1,028	738	2,399	4,322	1,603	14,687	1,883	11,737	2,996	545

.

13 , 4
 , 3,608 8,260 , 1,681 가 1,525
 , 1,394 , 922 , 713 , 4,562 ,
 1,126 , 1,042 , 416 , 356 , 1 .

2-3.

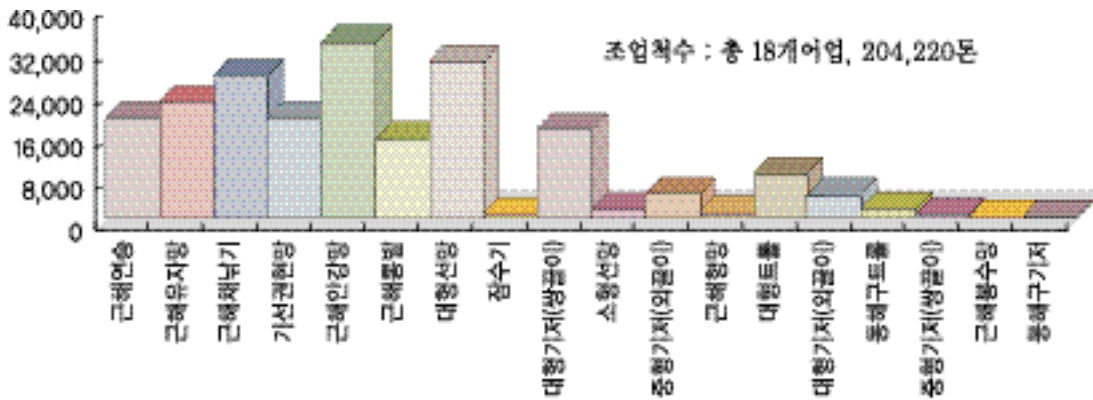
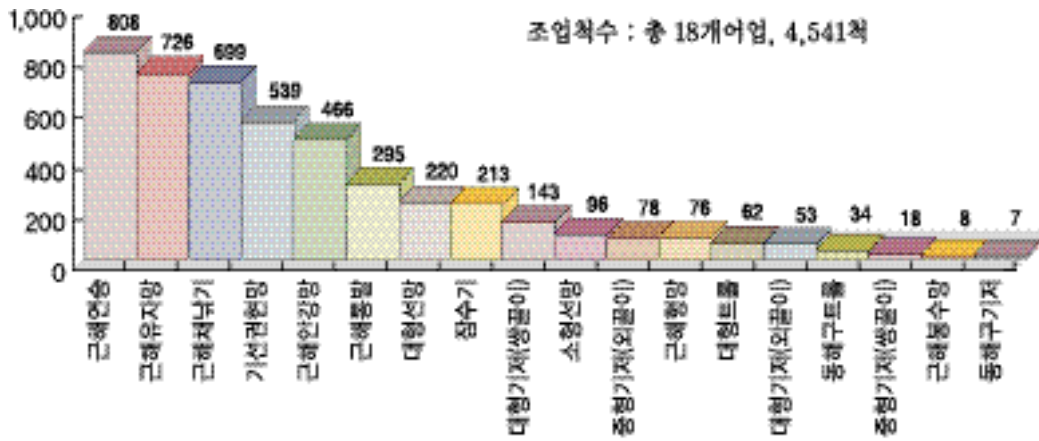
가

(2003 12 31)

	3,608	8,260	42	356	66	105	416	1,126	334	4,562	193	1,042	18
		5,244	42	152	66	24	105	873	78	2,970	193	738	3
		26	3		3					3	14	3	
		20								19		1	
		351	10				63	8		101	6	163	
		329	17		53		27		3		72	157	
		450		140		21		2		232		55	
		713						518	49	145			1
		85								75		10	
		1,525	11		10		15	116	10	1,014	101	248	
		36										36	
		14	1									13	
		1,681				1		229	16	1,381		52	2
		2				2							
		12		12									
	3,608	3,016		204		81	311	253	256	1,592		304	15
	12	11										11	
	684	689					311			367			11
	1,029	922								628		293	1
	1,883	1,394		204		81		253	256	597			3

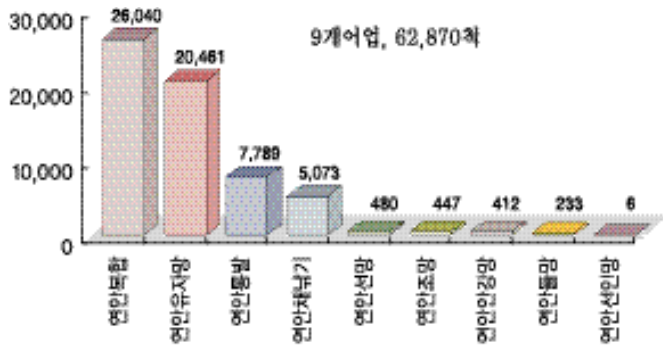
2.
가.

4,541 204,220 , 2,552,127
 808 가 , 726 , 699 ,
 539 . 33,015 가 , 29,511 ,
 26,719 , 21,812 , 18,825 .

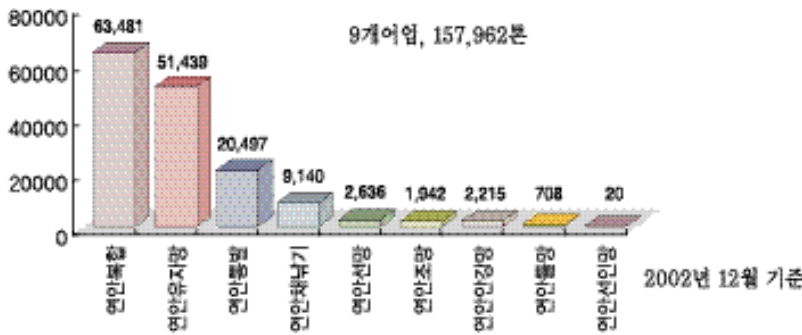


2002년 12월 기준

2-1.

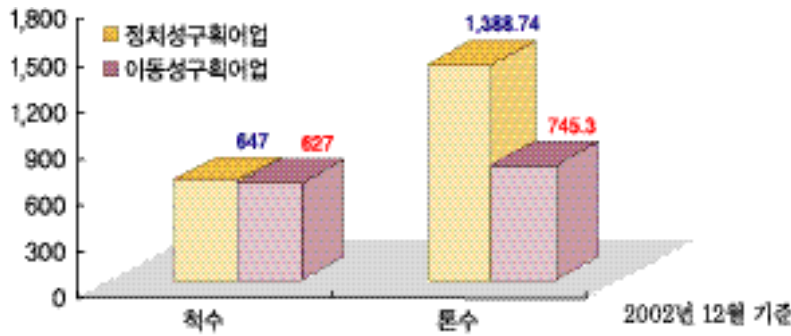


62,870 157,962 ,
11,168,198
59,769 , 3,101



26,040 가 ,
20,461 ,
7,789 ,
5,073 .
63,481 가

2-2.



1,274 157,962 ,
11,168,198
647 , 1,388.74 ,
627 , 745.3

2-3.

2-4. (2002 12)

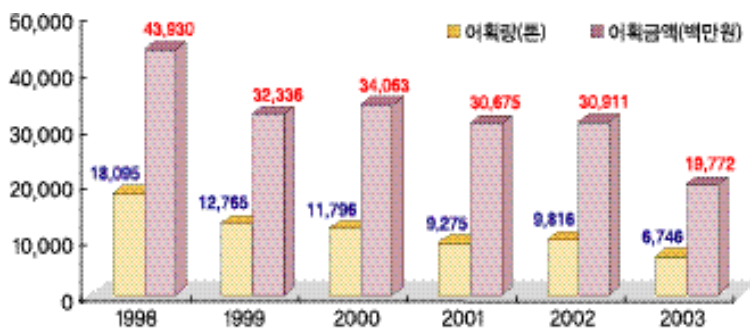
	(GT)	(Hp)		(GT)	(Hp)		(GT)
590	3626.47	78,965	497	3,438.98	78,965	93	187.49

590 3,626.47 ,
78,965 497
, 93 .

1.

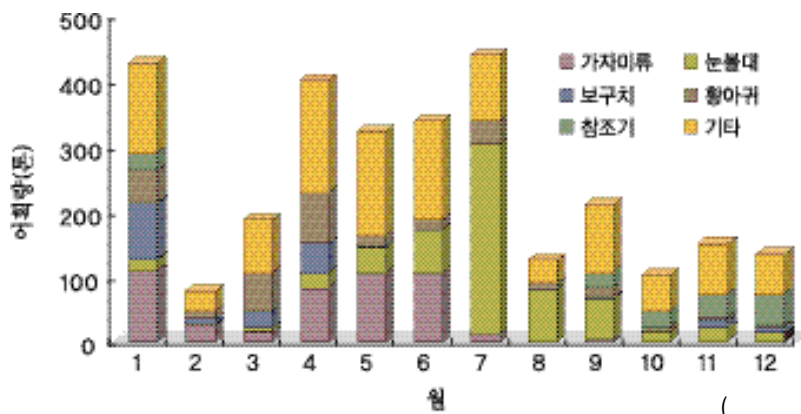
가.

1)



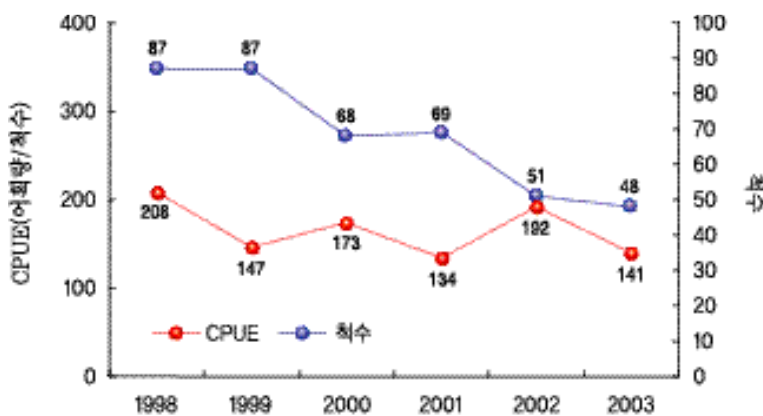
1998 18,095
 1999 12,765 , 2000
 11,796 , 2001 9,275 ,
 2002 9,816 , 2003 6,746

3-1.



2003
 7 , 1 , 4
 438 , 425 , 401
 , 2 76 가
 . 8 12
 20

3-2.

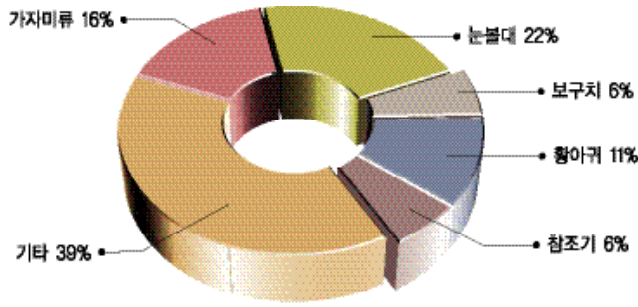


(CPUE)
 1998 87 2003
 48 . CPUE
 1998 208 , 1999 147
 , 2000 173 , 2001 134
 , 2002 192 , 2003 141

3-3.

CPUE

2)



3-4.

가

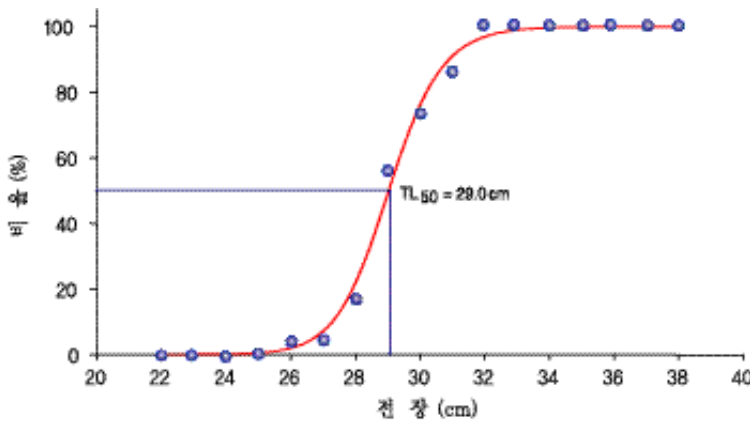
가
22%, 가
16%, 11%,
6%, 6%

3)

()

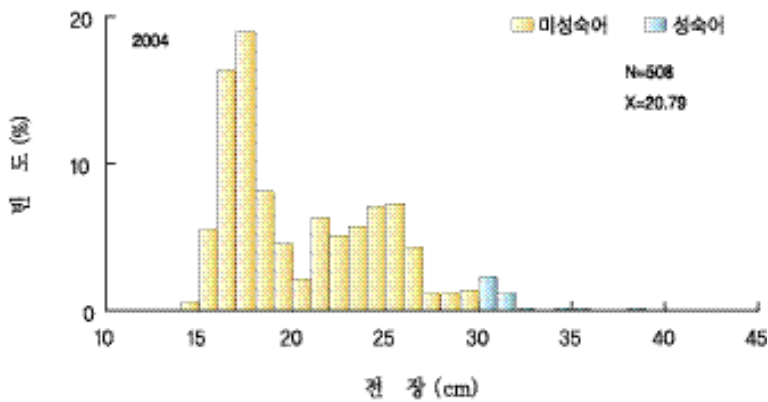
가 , ,

가)



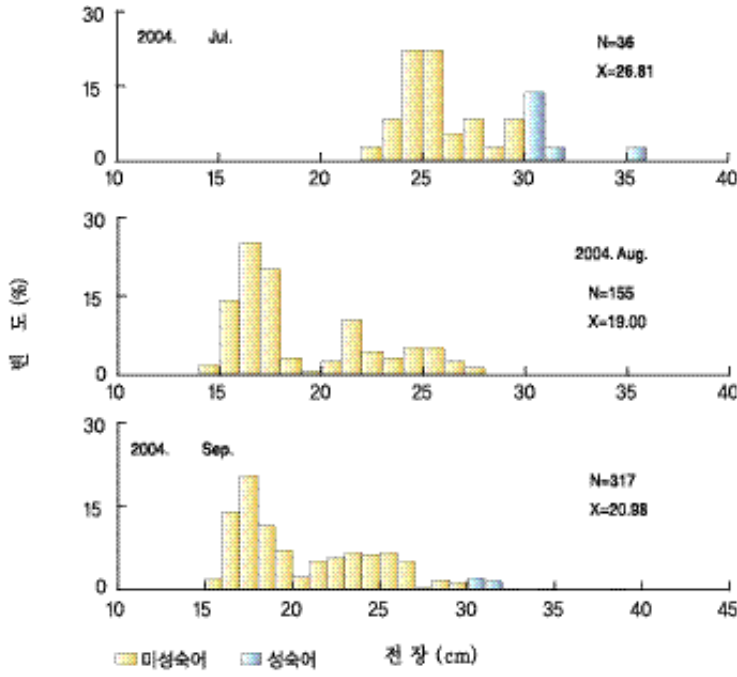
3-5.

7
가
8 10
9~10
29.0cm
50%
(Total Length)



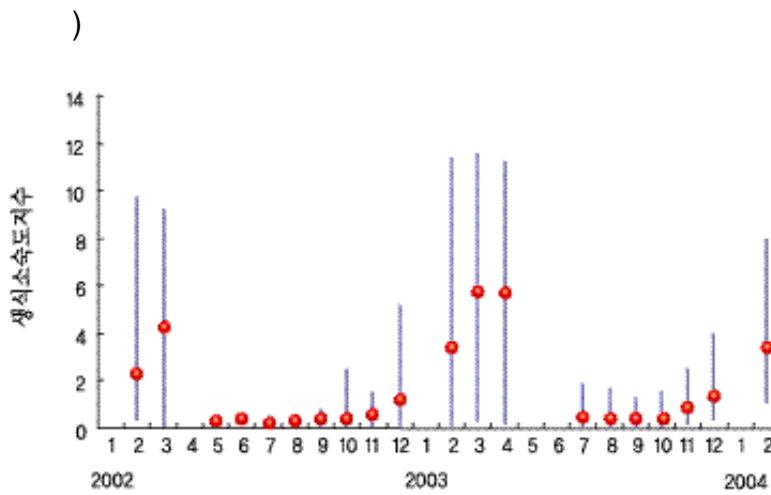
3-6.

2004
() 20.79cm (508)
2004
452
89.0%



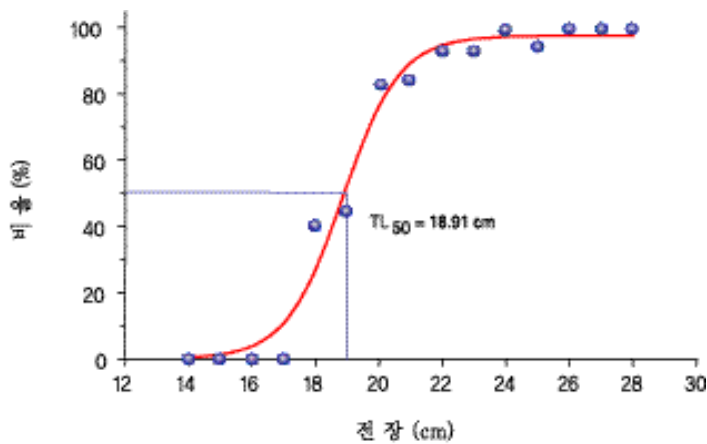
26.81cm 가
78.8%, 8 19.0cm, 100%. 9
20.98cm, 88.9%

3-7.

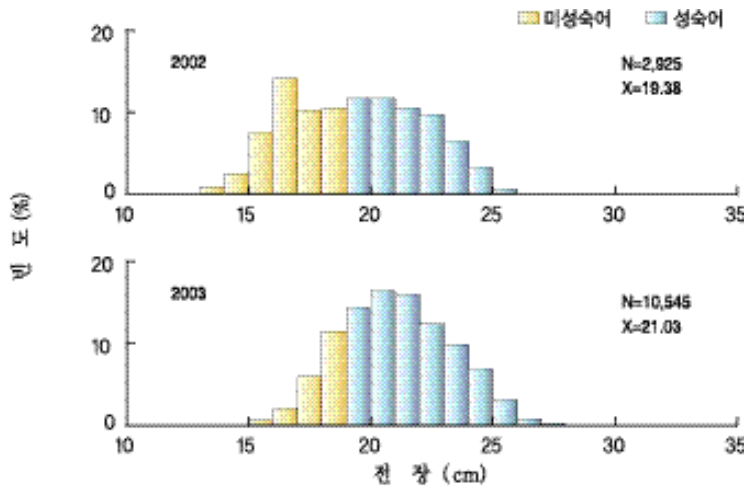


2~5
3~4
21.4~26.9cm
10,022~84,134
50%
(Total Length)
18.9cm
1.5

3-8.



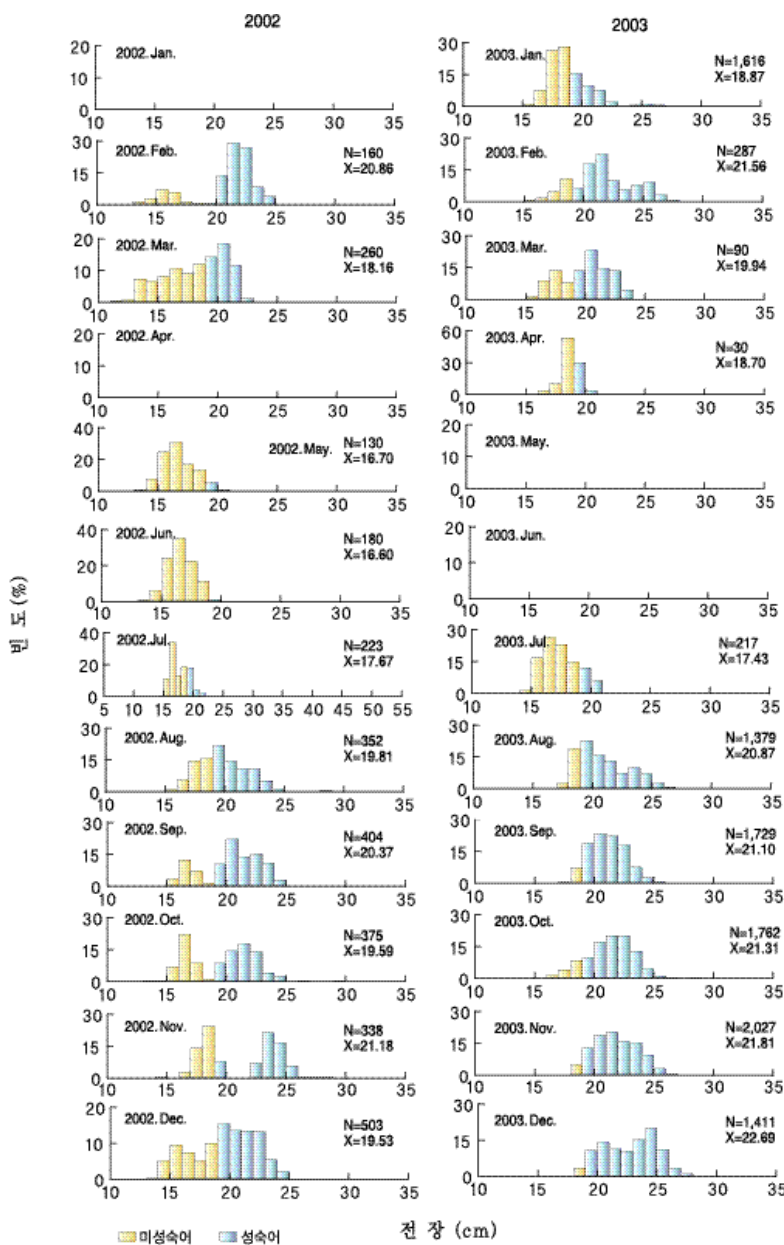
3-9.



2002 () 19.38cm ,
 2003 21.03cm .
 2002

1,340 45.8%
 , 2003 2,119
 20.2% .

3-10.

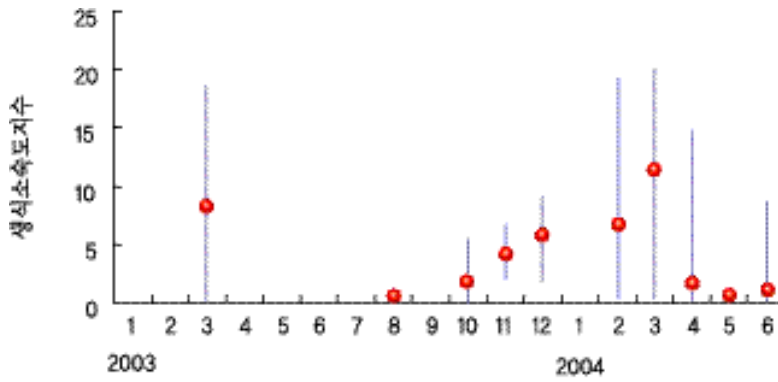


2002 5
 ~7 76~99%

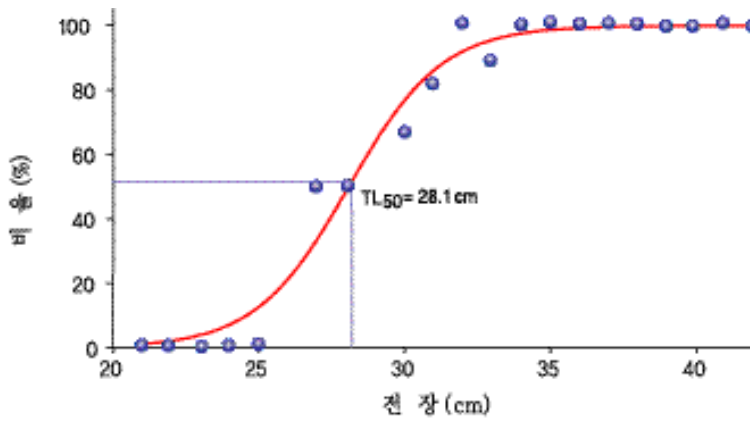
2003 1, 4, 7
 65% .

3-11.

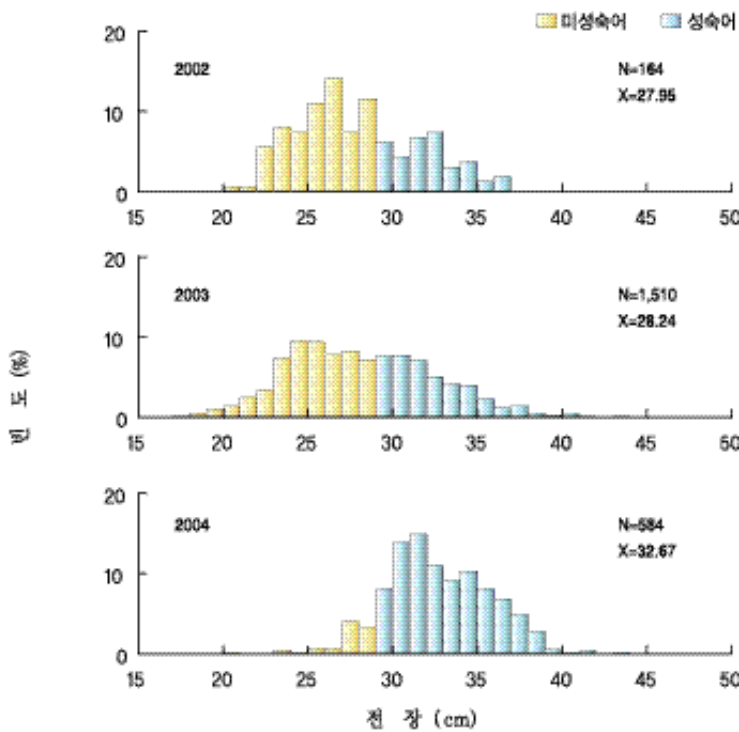
) 가



3-12. 가



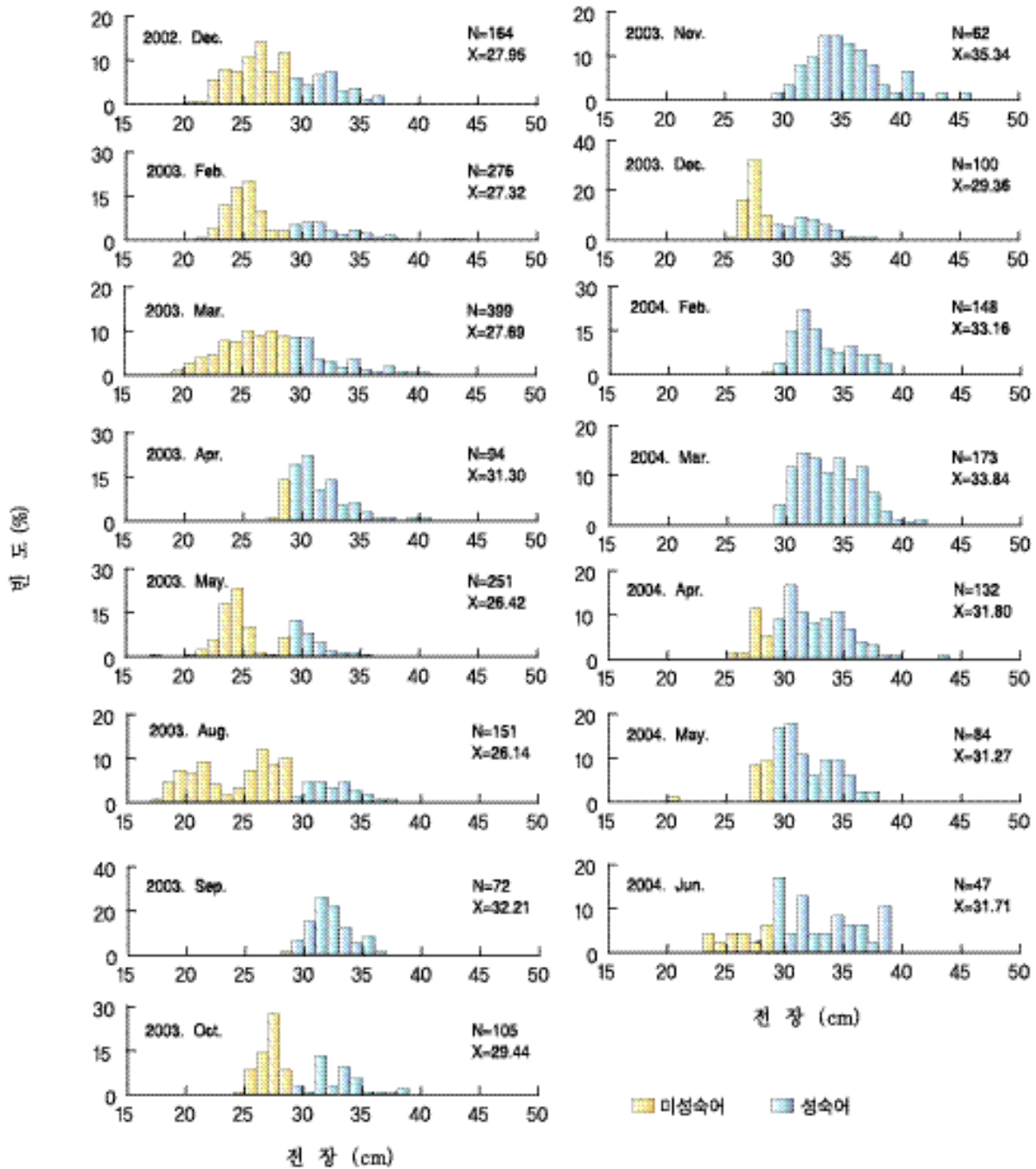
3-13. 가



3-14. 가

가 2~4
2~3
50%
(Total Length) 28.1cm

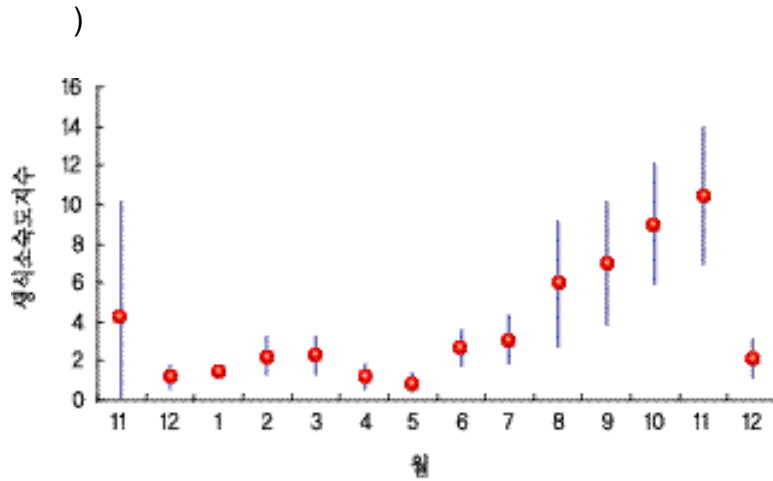
가 2002
() 27.95cm (164), 2003
28.24cm (1,510)
, 2004 6
32.67cm (584) 가
2002
108
65.9% , 2003
878 58.2%
, 2004 6 54
9.25%



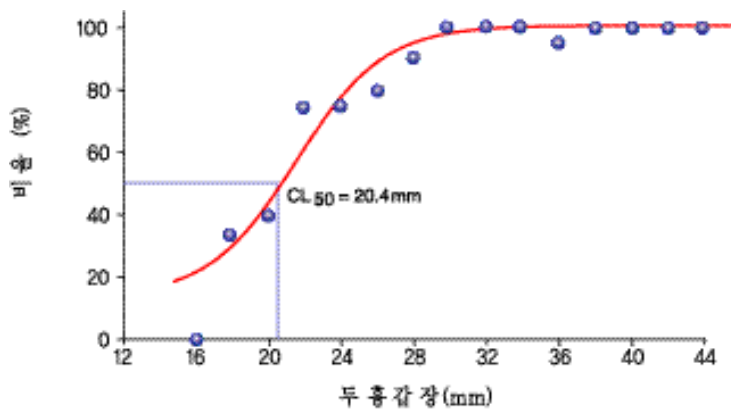
3-15. 가

2002 2 ~ 6 61.6~80.5%

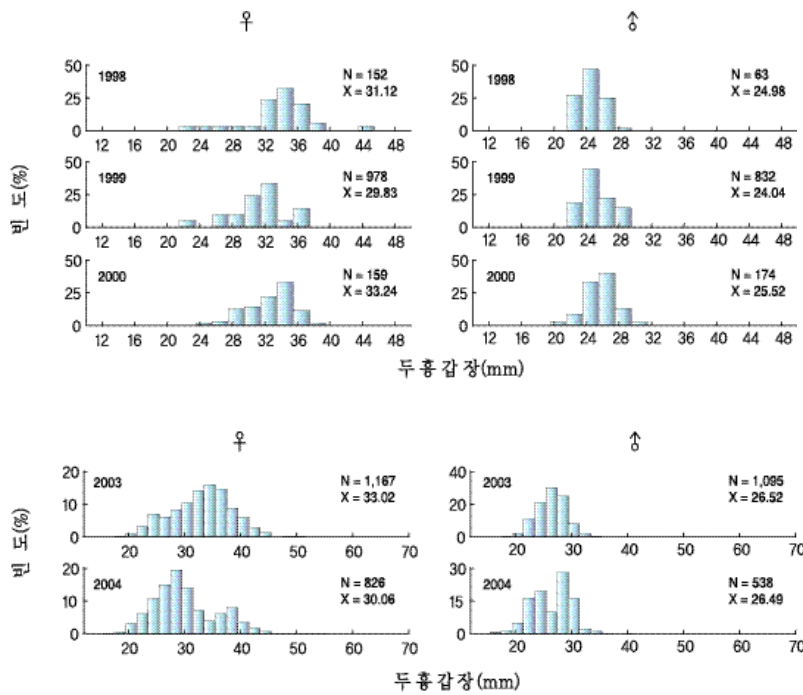
2003 2 ~ 4 30%



3-16.

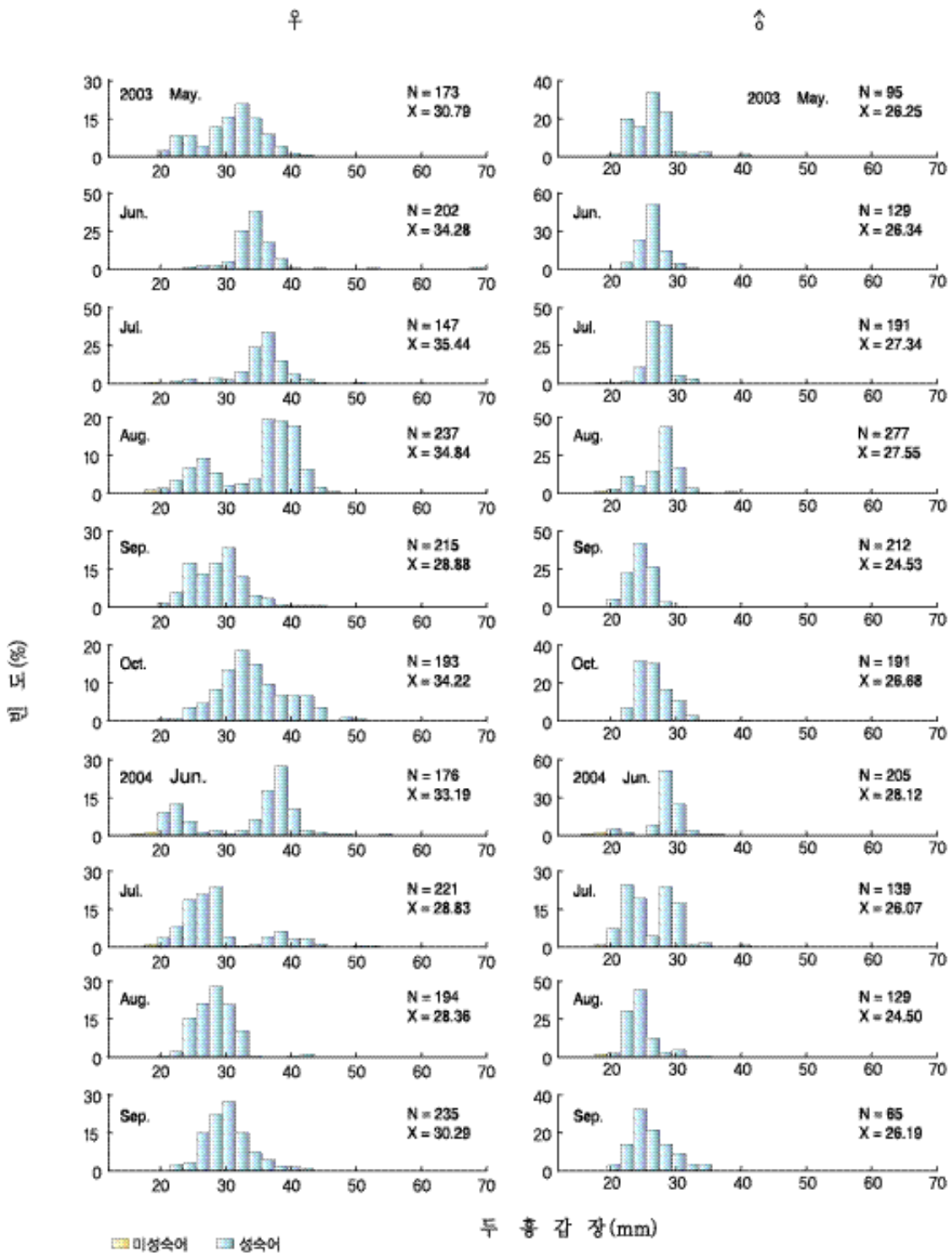


3-17.



3-18.

8~11 ,
 9~11 .
 18mm
 , 30mm
 95%
 30mm
 , 50%
 20.4mm
 8~11 ,
 94,400~405,200
 . 9~11
 1
 ,
 2 .
 2003
 ()
 33.02mm (1,167)
 26.52mm (1,095) , 2004
 30.06mm (826)
) 26.49mm (538) .
 2003
 14 , 31
 1.2%, 3.6%
 , 2004 가
 30 , 35
 3.6%, 6.5% ,
 가

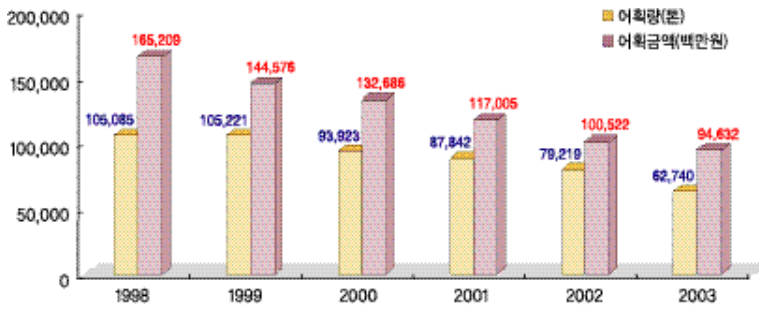


3-19.

4)

()
(CPUE)

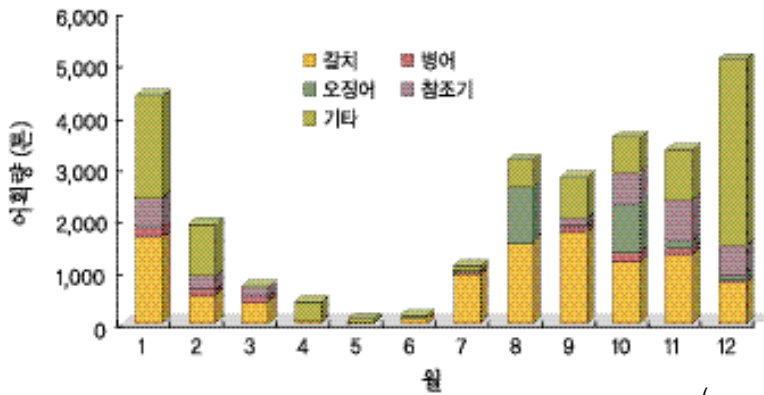
1)



1998 105,085
 1999 105,221 , 2000
 93,923 , 2001 87,842 ,
 2002 79,219 , 2003
 62,740

()

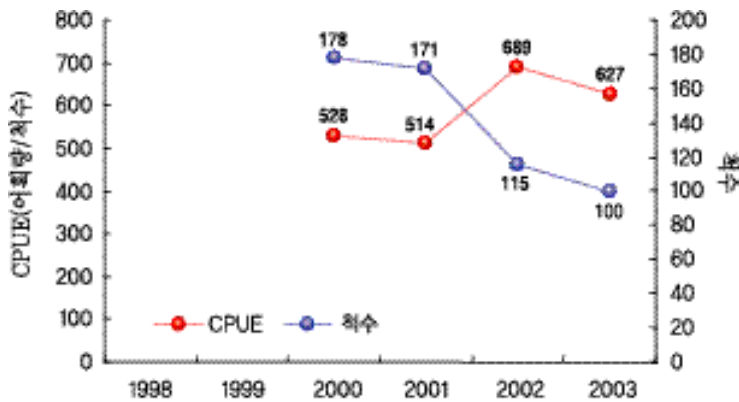
3-20.



12 5,081 가
 , 5 80 가

()

3-21.



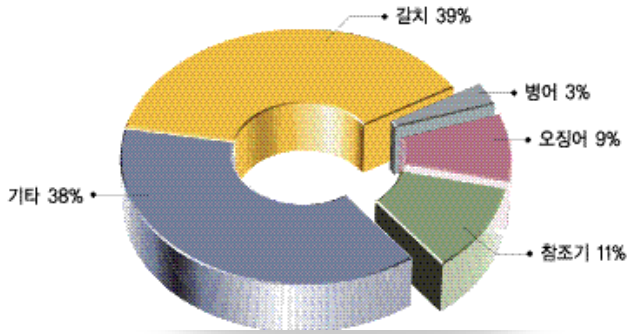
(CPUE)

2000 178
 2003 100
 CPUE
 2000 528 , 2001
 514 ,
 2002 689 , 2003 627

()

3-22.

2)



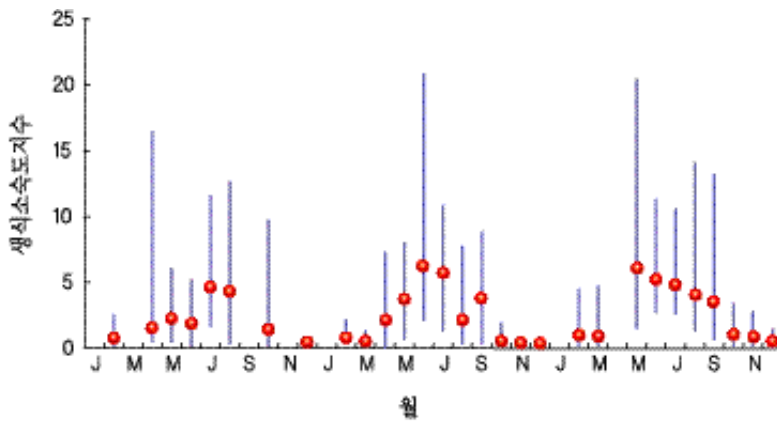
3-23.

가 , , , 가 가
 , , ,
 가 39%, 11%,
 9%, 3%

3)

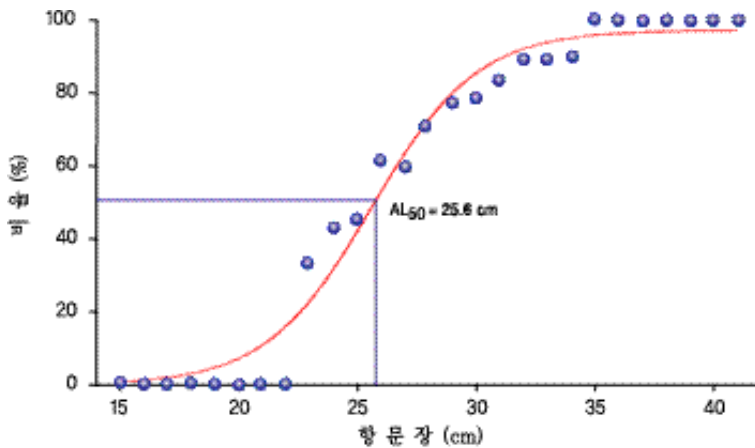
() ,

가)

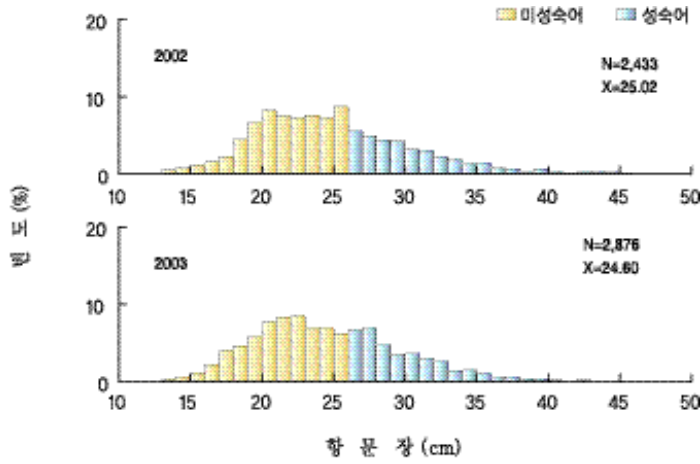


3-24.

4~10
 5~9
 267,002
 (AL 49.8cm), 31,145
 (AL 24.2cm)
 50% 25.6cm
 2.5

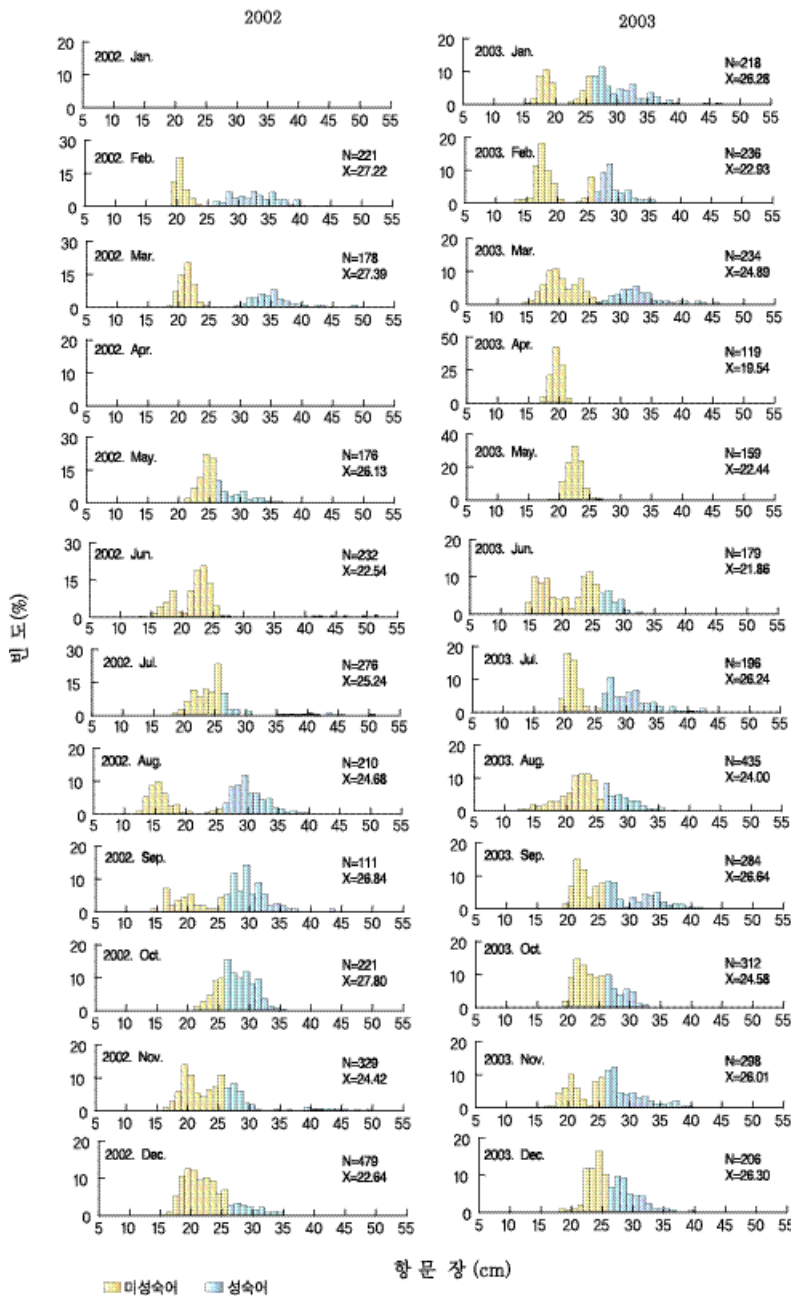


3-25.



2002
 () 25.02cm (2,433) , 2003
 24.60cm (2,876)
) . 2002
 1,342
 55.2% , 2003
 1,635 56.8%

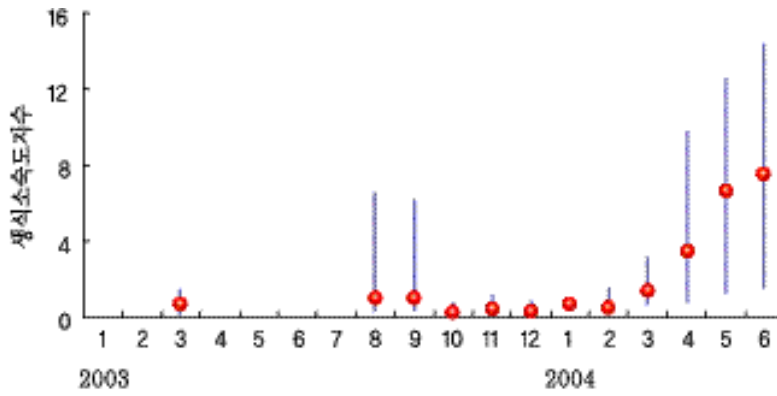
3-26.



2002 6
 91%가 ,
 2003 4 5 99%

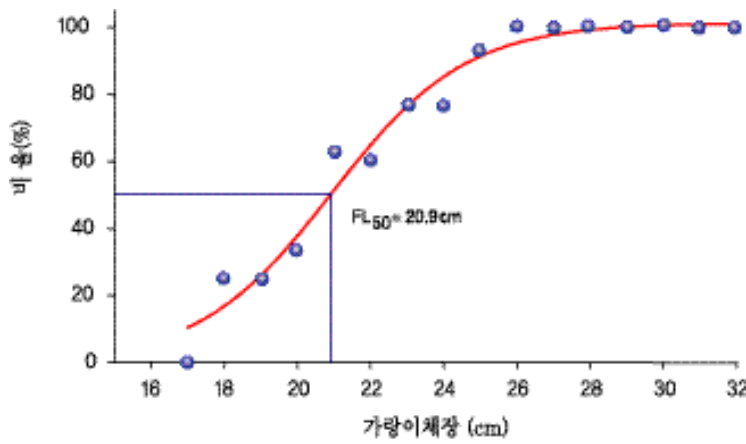
3-27.

) ()

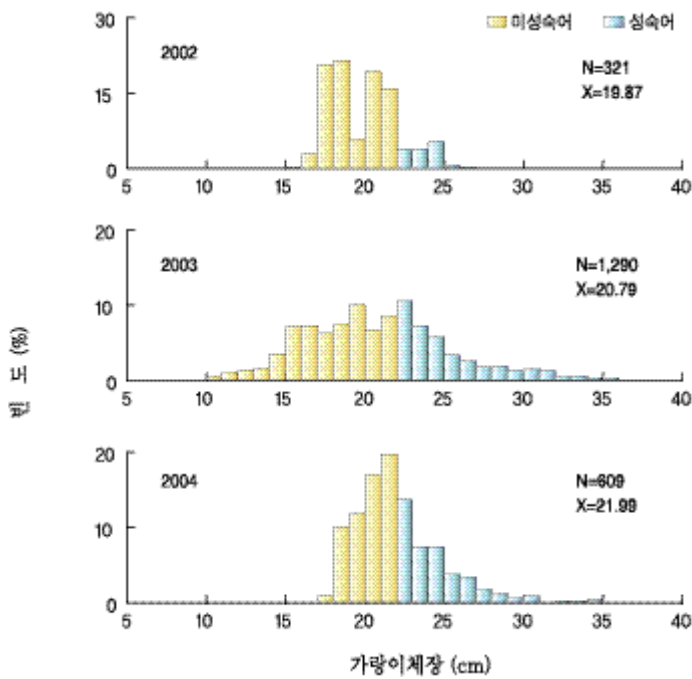


2-28. ()

() 4~9
5~6
50%
가 (Fork Length)
20.9cm
2.3

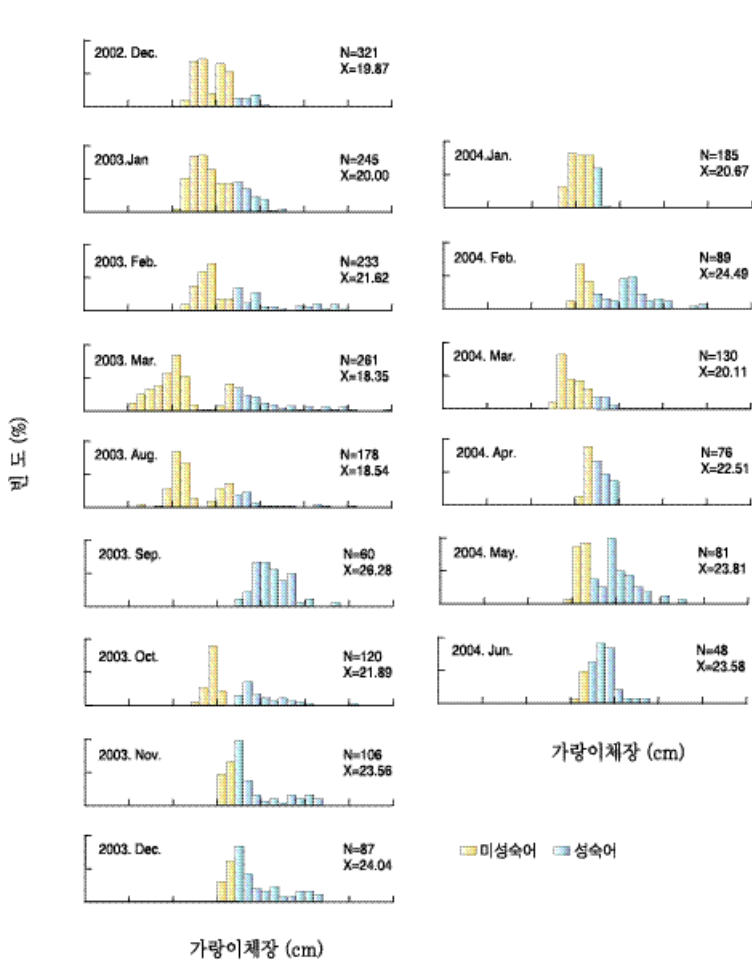


2-29. ()



3-30. ()

() 2002
가 19.87cm (321), 2003
20.79cm (1,290)
, 2004 6
21.99cm (609) 가
2002
277 86.3% ,
2003 792 61.4%
, 2004 6
361 59.3%



가랑이채장 (cm)

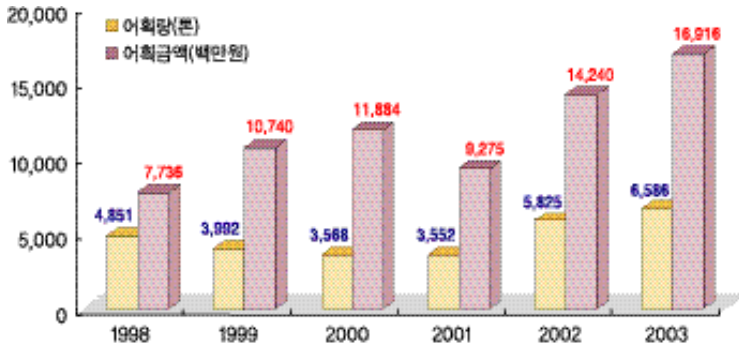
3-31.

2003 9
 , 2002 12 2003 3
 63%
 , 2004
 2 ~ 6 61.6~
 80.5%

4)

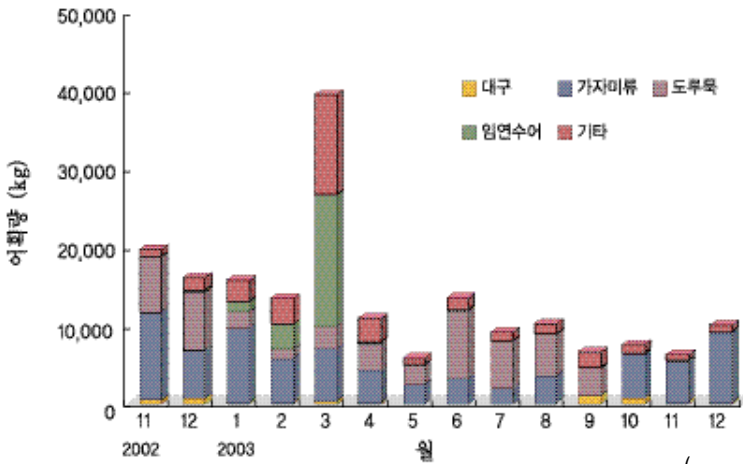
()
 (CPUE) 가
 가

1)



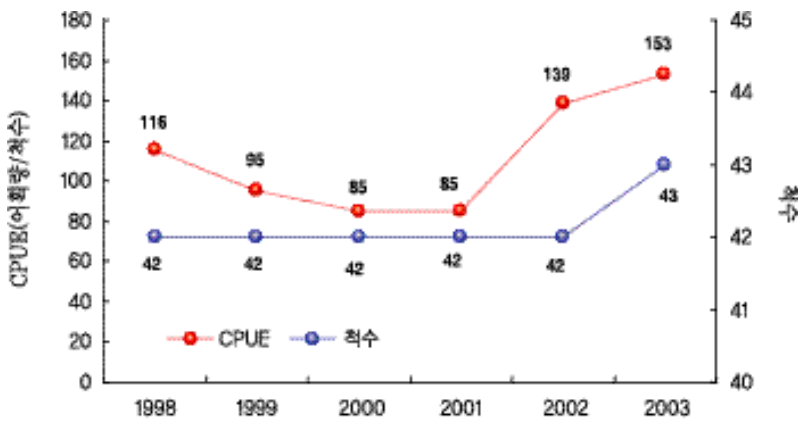
3-32 . 1998
4,851 1999 3,992 ,
2000 3,568 , 2001 3,552
, 2002
5,825 , 2003 6,586

3-32.



2003 3 39,465kg 가
, 5 5,815kg
가 .

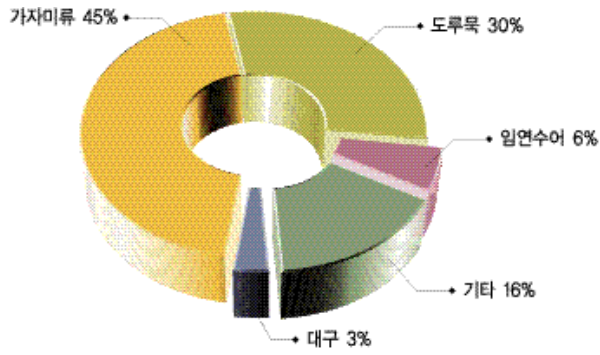
3-33.



(CPUE)
1998 42 2002
, 2003 43
1 가 . CPUE
1998 116 , 1999 95 ,
2000 2001 85
, 2002 139 , 2003
153 가

3-34.

2)



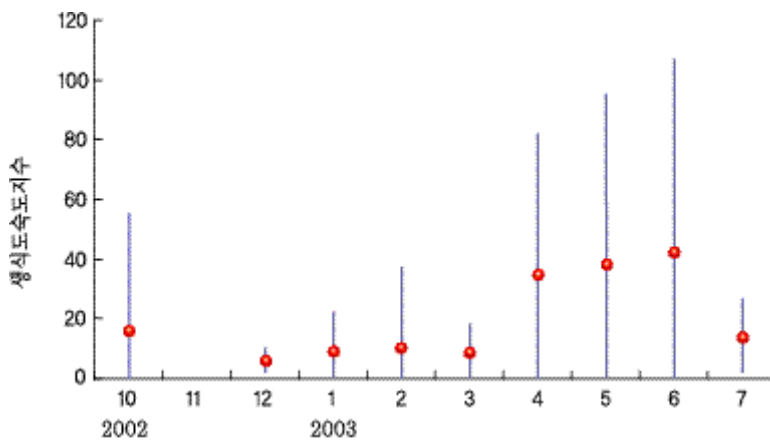
3-35.

가
가
가
가
가
가 45%, 30%, 6%, 3%

3)

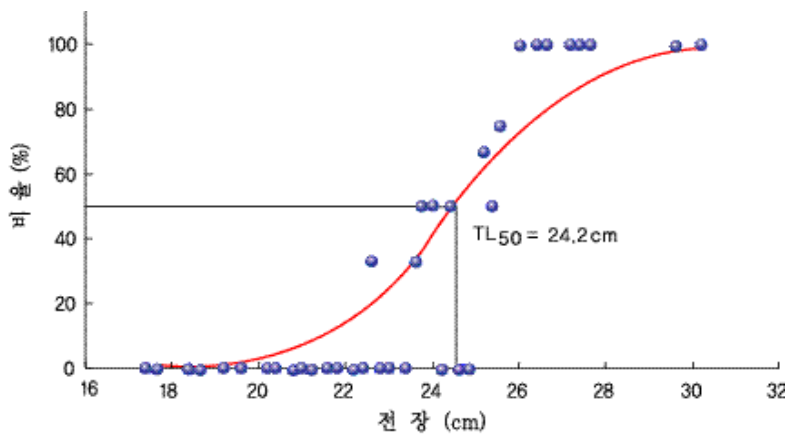
가 , , , .

가) 가

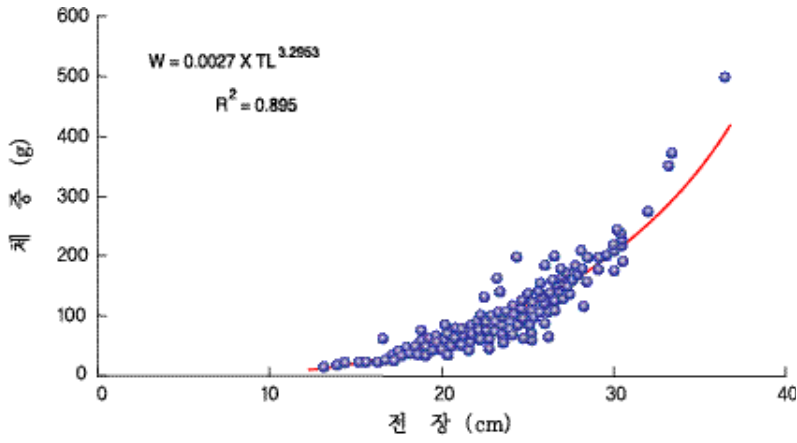


3-36. 가

가 4 6
50%
(Total Length) 24.2cm

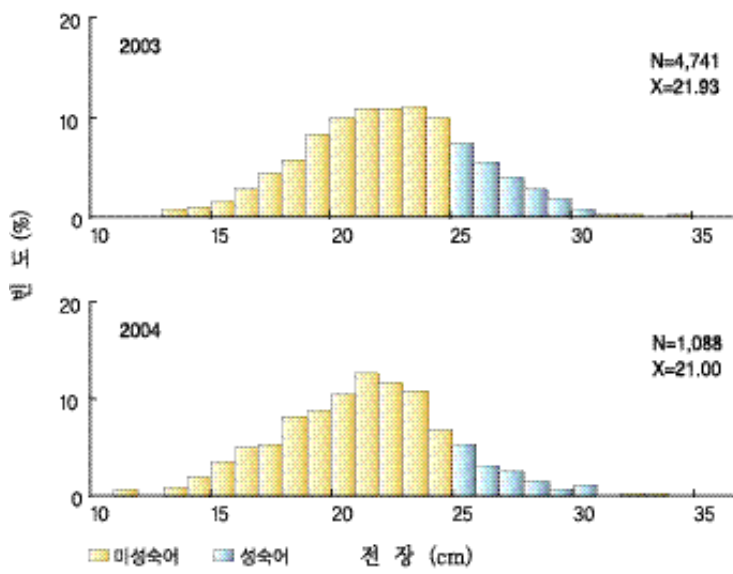


3-37. 가



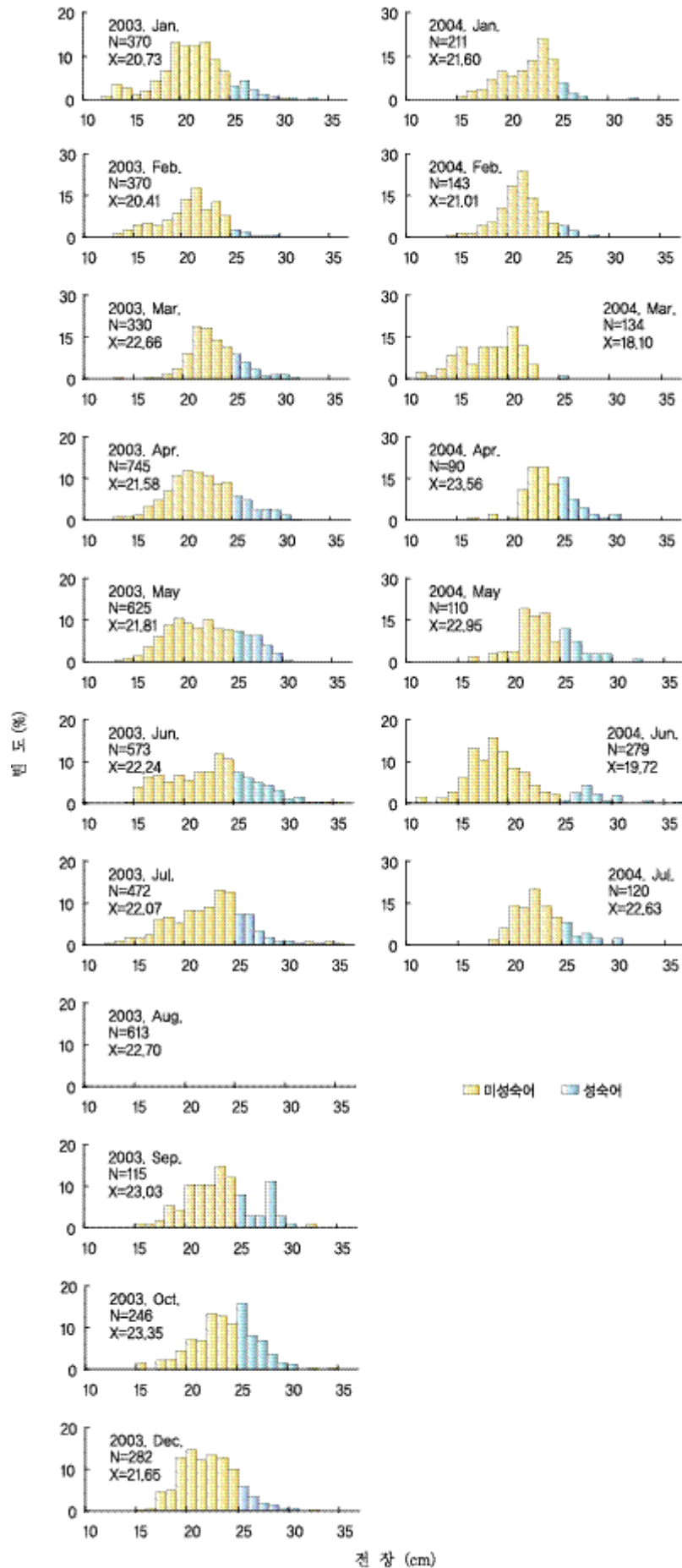
가 (TL)
(W) W =
 $0.0027 \times TL^{3.2953}$.

3-38. 가 .



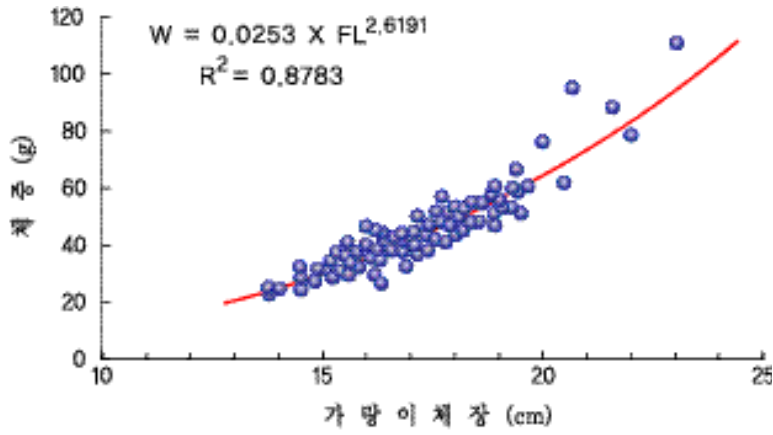
가 2003
() 21.93cm (4,741) , 2004
7
21.00cm (1,088)
. 2003
(24.2cm) 3,660
77.2% , 2004
939 86.3%
. 2003
1 2 87.6%,
94.3%
, 2004 1 3
90% .

3-39. 가



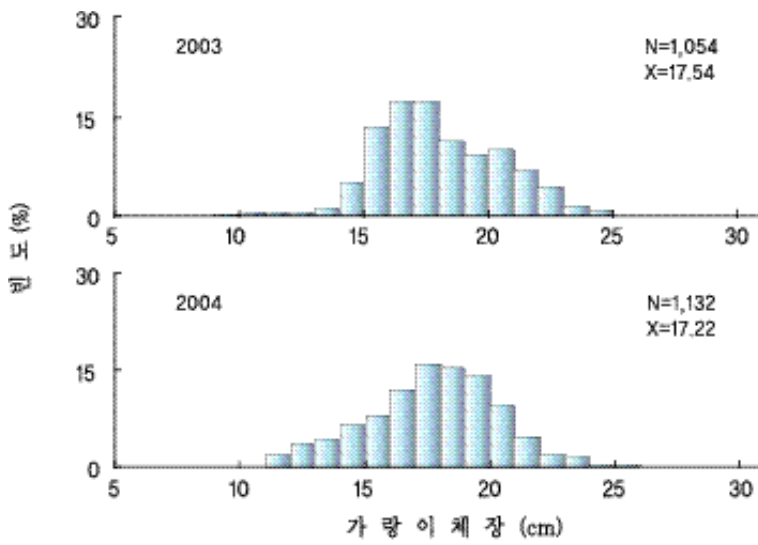
3-40. 가

)



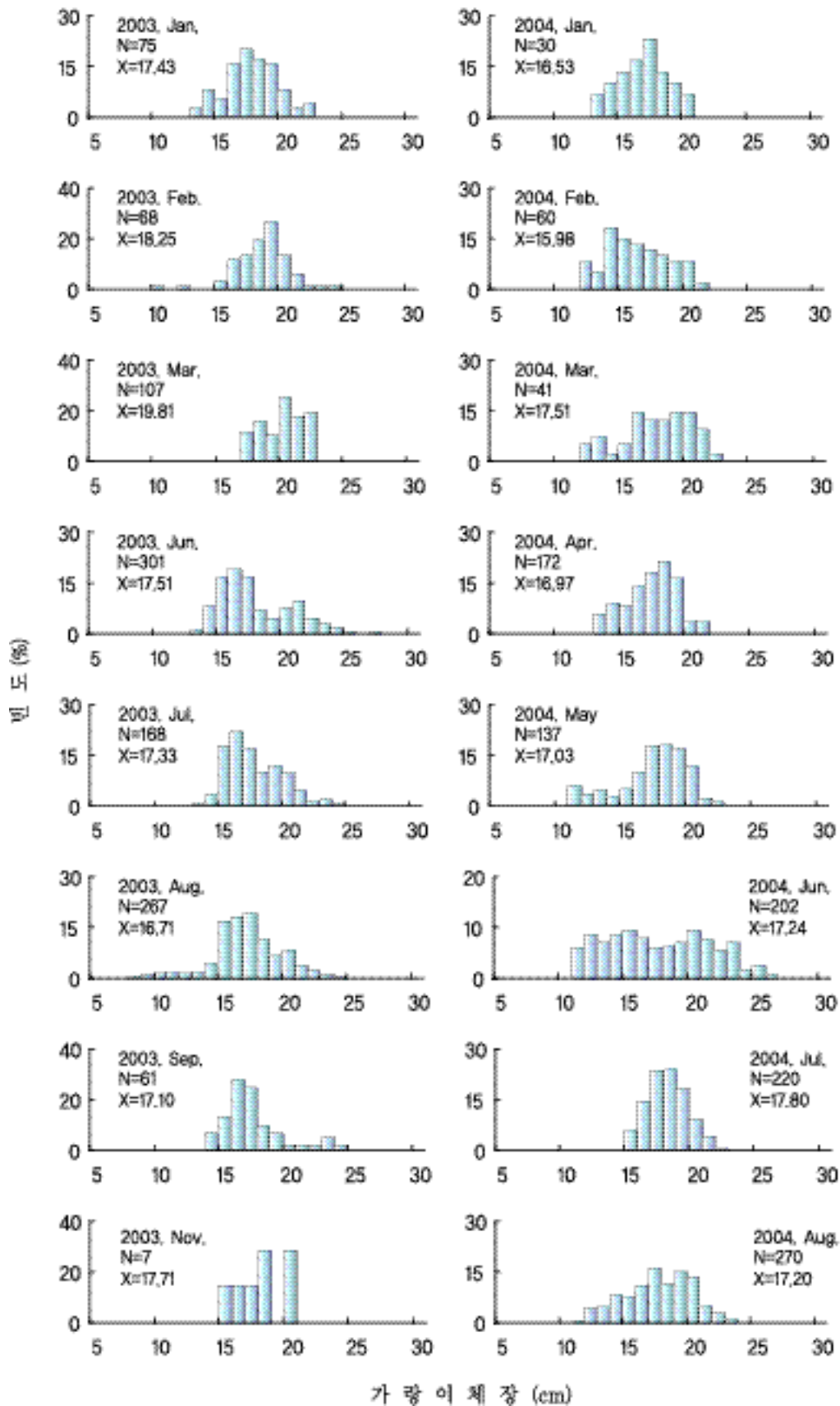
3-41.

가 (FL)
 (W) W =
 $0.0253 \times FL^{2.6191}$

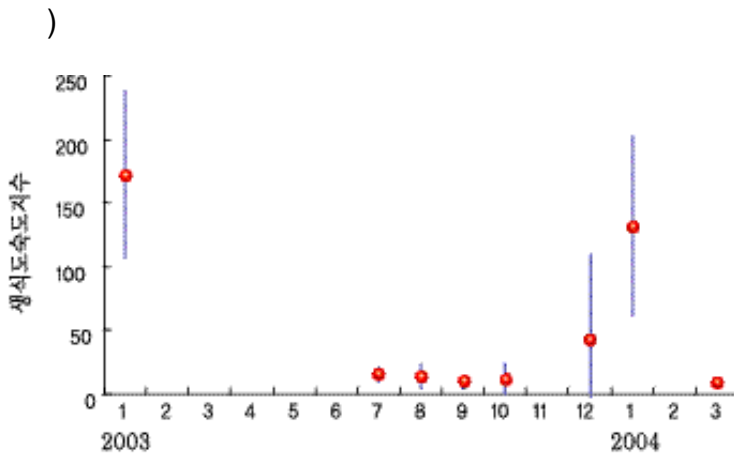


3-42.

2003
 (가) 17.54cm (N=1,054) , 2004 8
 17.22cm (N=1,132)
 , 2004 15cm
 2003
 2003 8
 16.71cm 15cm
 가 , 2004
 2 15.98cm
 가 14cm .

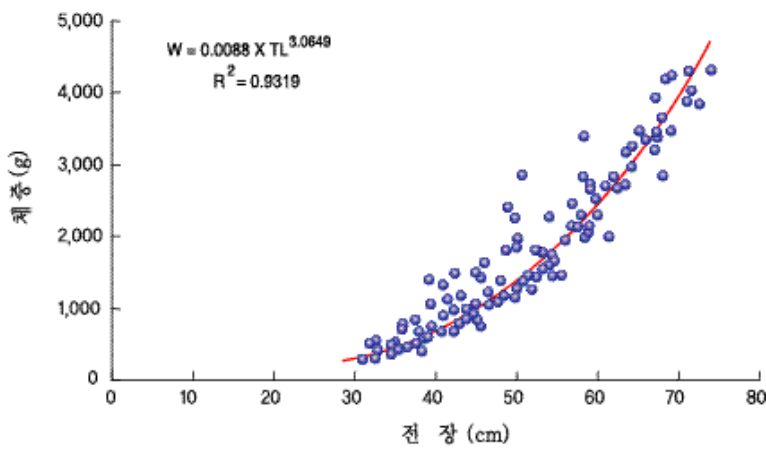


3-43.



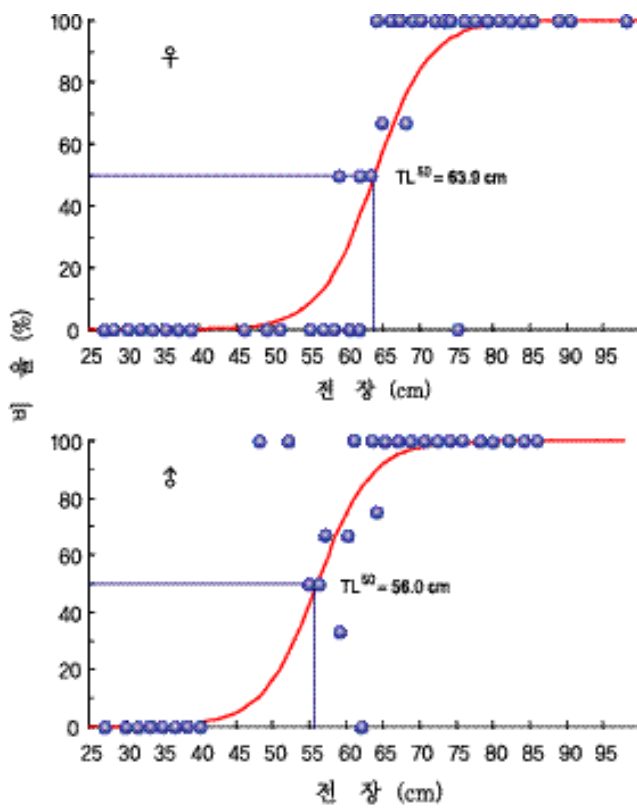
3-44.

12 3
1 2 .



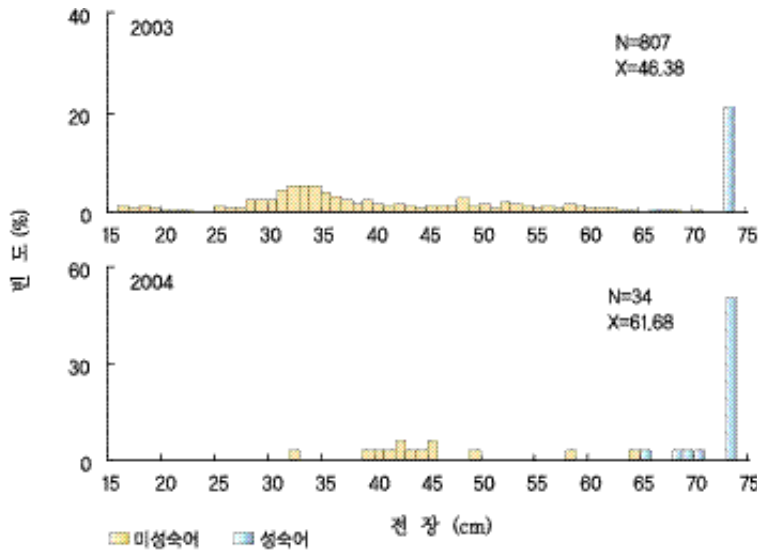
3-45.

(TL) (W)
 $W = 0.0088 \times$
 $TL^{3.0649}$.



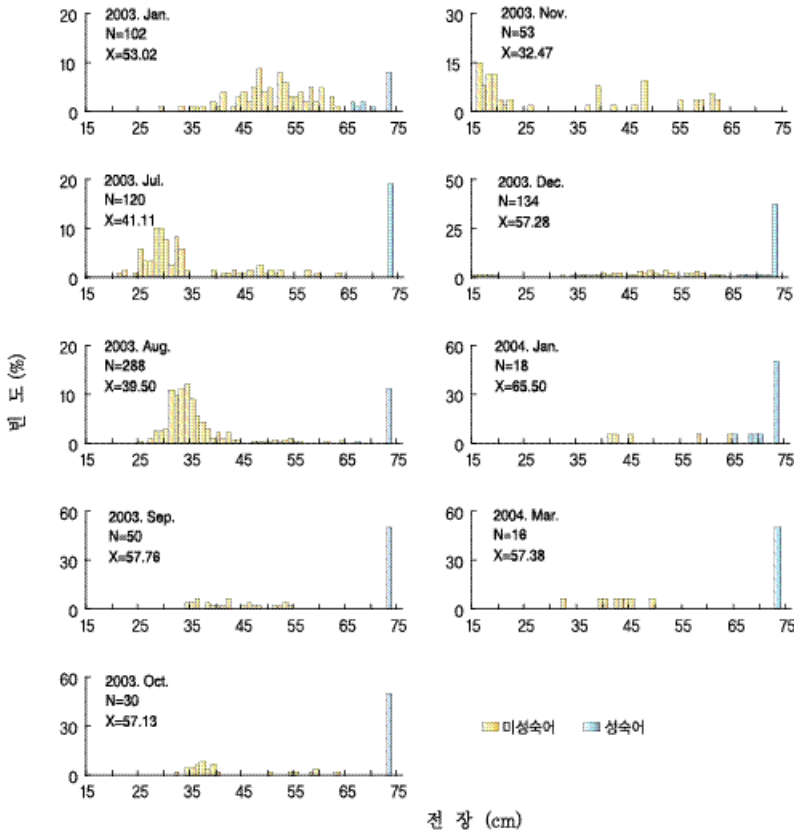
3-46.

50%
(Total Length) 63.9cm ,
(Total Length) 56.0cm .



3-47.

2003
 () 46.38cm (807) , 2004 3
 61.68cm
 (34) . 2003
 (63.9cm)
 621 77.0%
 , 2004 12 35.3%



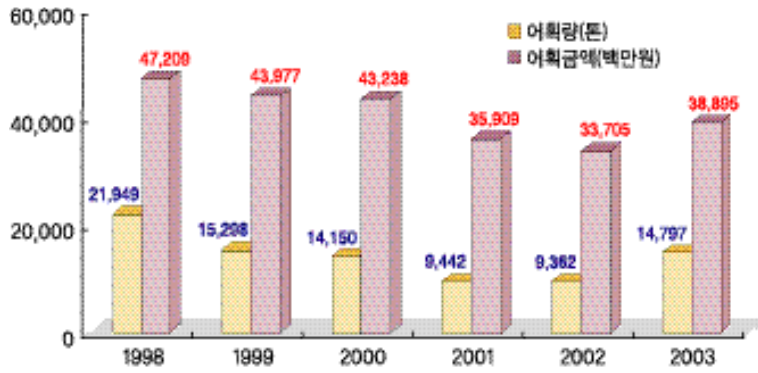
3-48.

2003 11
 가
 , 1 , 7 , 8
 80%
 , 2004 1 22.2%,
 3 50.0% 2003

4)

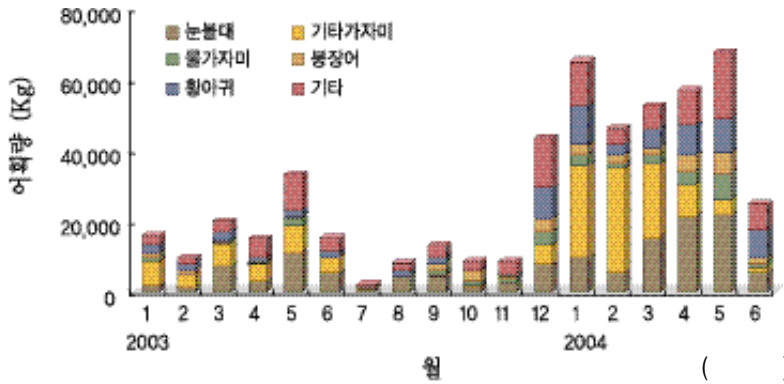
가 , CPUE 1998 2001
 가 2002 2003 가 .
 가 , 2003
 54%

1)



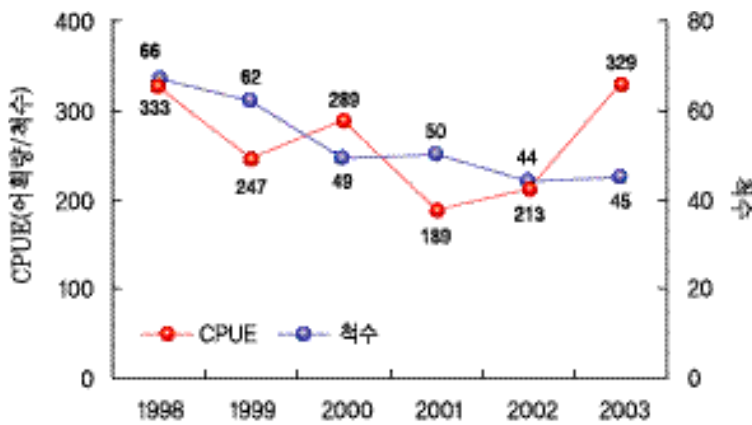
1998
21,949 , 1999 15,298
, 2000 14,150 , 2001
9,442 , 2002 9,362
2003
14,797 가

3-49.



2004 5 1
67,748kg, 65,361kg
, 2003 7
1,953kg 가 ,
2004 2003

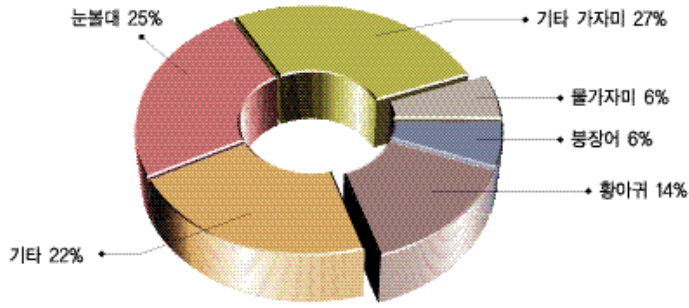
3-50.



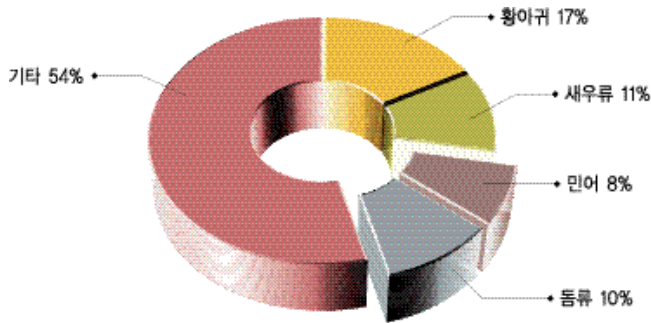
1998 66
1999 62 , 2000 49 ,
2001 50 , 2002 44 ,
2003 45
. CPUE
1998 333 , 1999 247
, 2000 289 , 2001 189
, 2002 213 , 2003 329

3-51.

2)



가 25%, 가 14%, 가 6% .



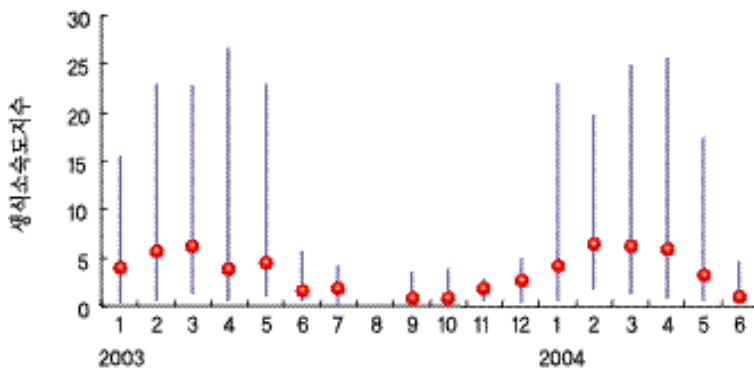
가 17%, 가 11%, 가 10%, 가 8% .

3-52.

3)

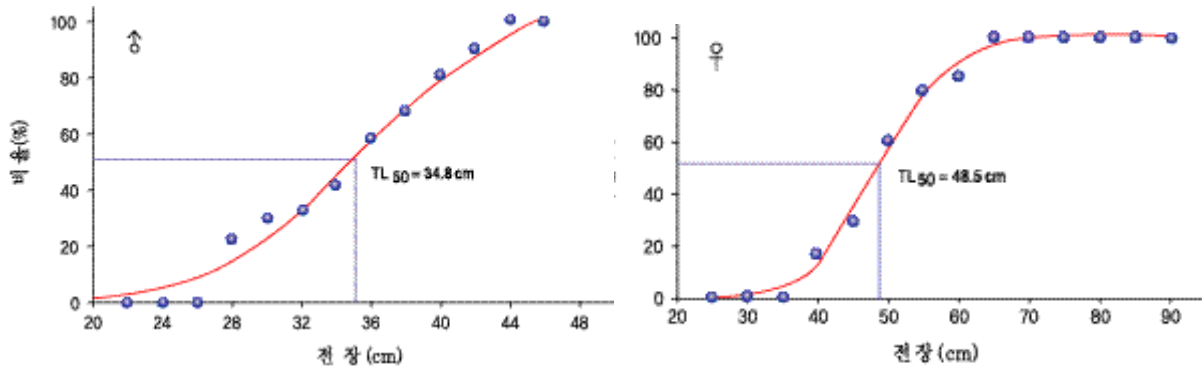
()

가)

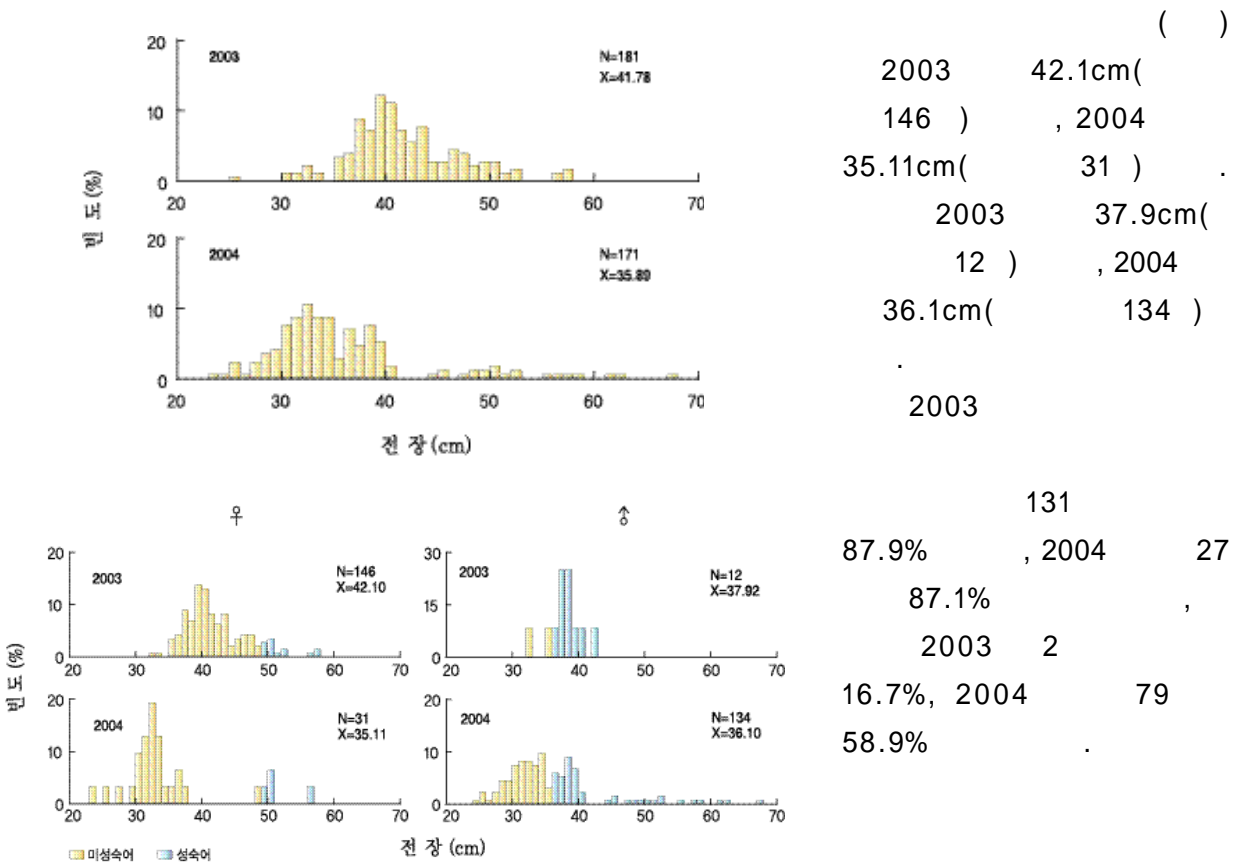


3-53.

1~5
2~4
1,874,560
(TL 90.25cm), 369,570
(TL 52.25cm)
50%
(Total Length) 48.5cm,
36.4cm
3.5 , 2.5
가 .



3-54.

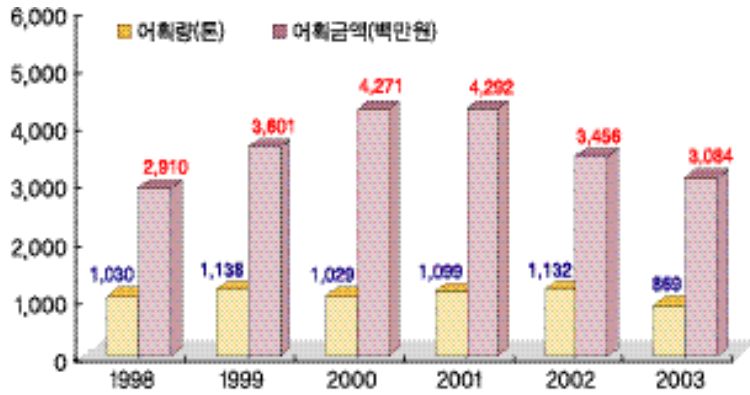


3-55.

4)

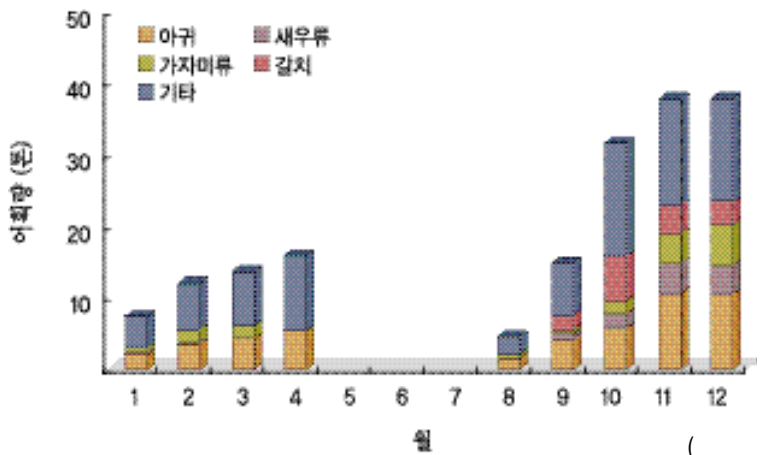
가 2003
 1,764 가 , CPUE 가
 가 27

1)



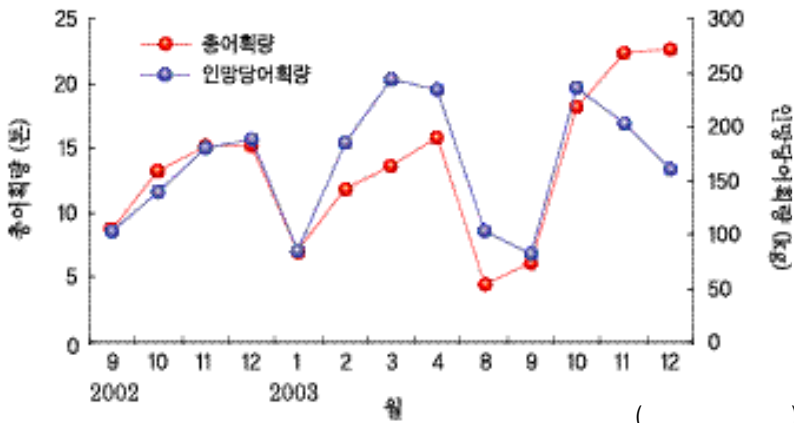
3-56 . 1999
가
, 2003 869
가 , 2001
가 .

3-56.



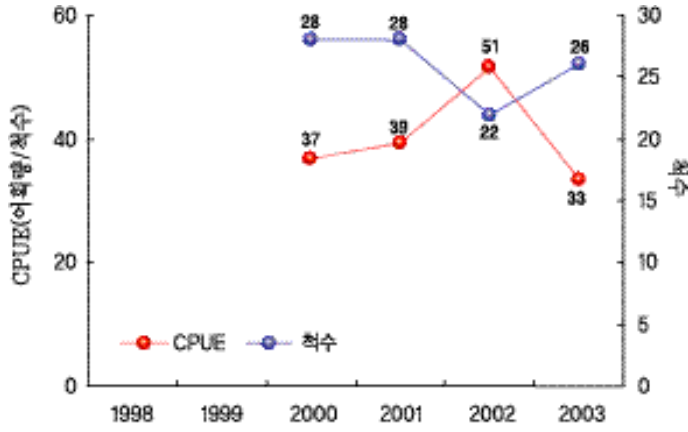
2003
11 12 45
가 , 8
가 , 5 7
가 .

3-57.



(CPUE)
2003 2002
, 2003 3
가 .

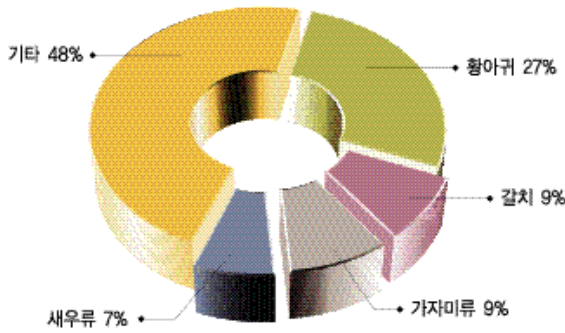
3-58.



3-59.

()

CPUE
 ,
 2002
 51 가 , 2003
 33 가
 2000
 28 2003 26

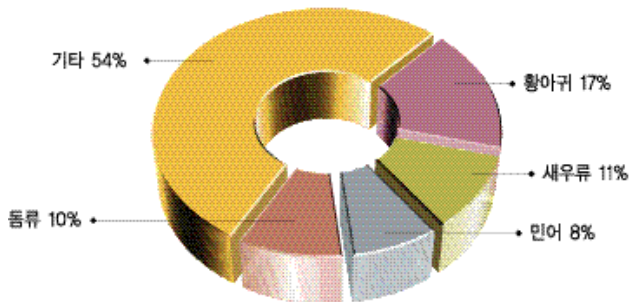


3-60.

()

2)

27%, 9%, 가
 9%



3-61.

()

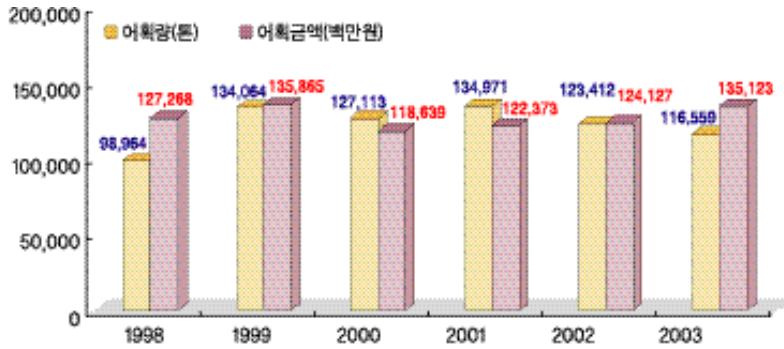
가 17%
 가 ,
 11%, 10%, 8%

3)

4)

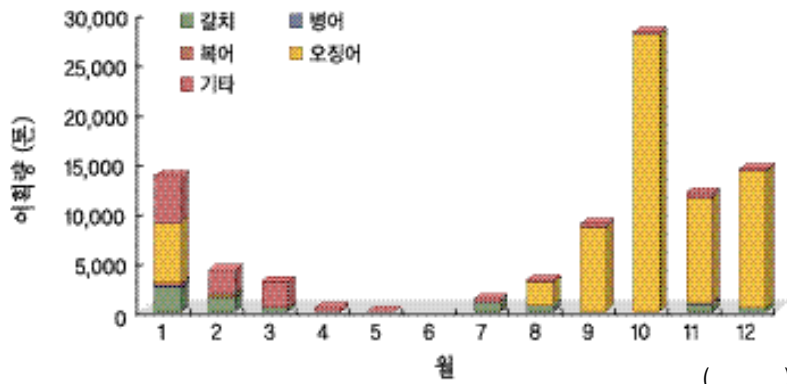
CPUE

1)



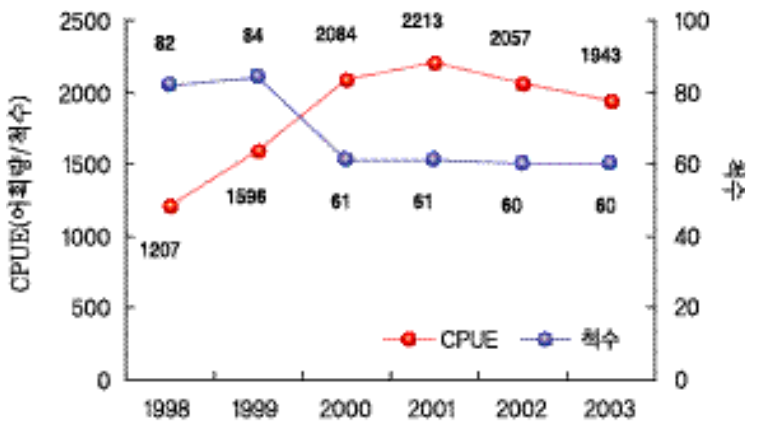
2001 1999
134,971 , 134,064
, 1998 98,964
가 , 2003
116,559

3-62.



2003
10 27,948 가
, 12 14,225 , 1
13,552 , 11 11,822
, 4, 5, 7, 8
, 6

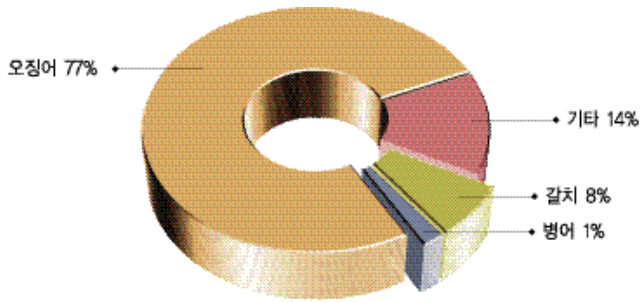
3-63.



(CPUE)
1998
82 2003 60
척수
CPUE
1998 1,207 2001
2,213 가 ,
2002 2003 2,057
, 1,943

3-64.

2)

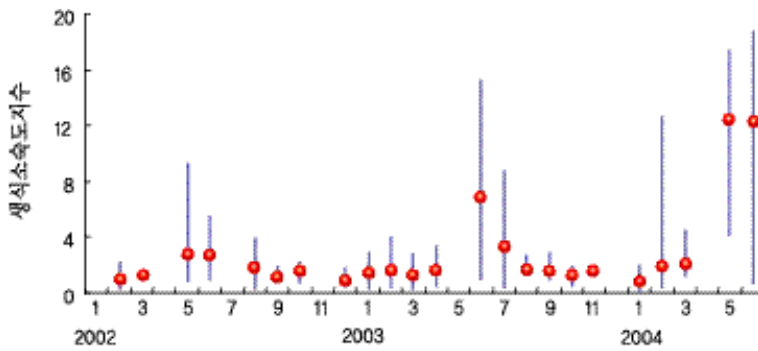


가
77% ,
8% ,
가

3-65.

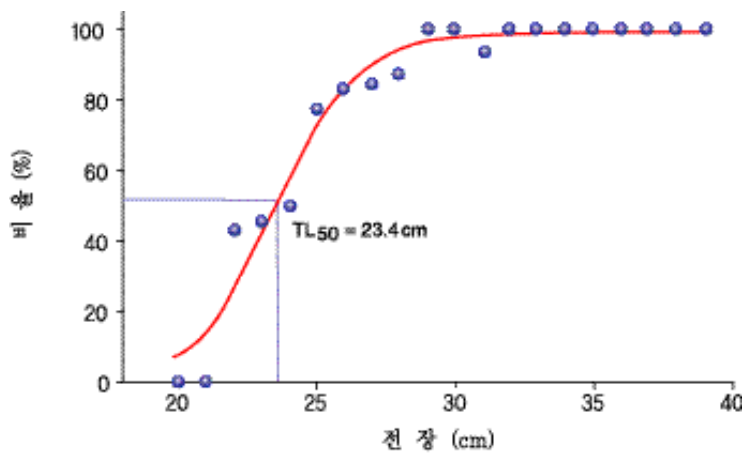
3)

가)

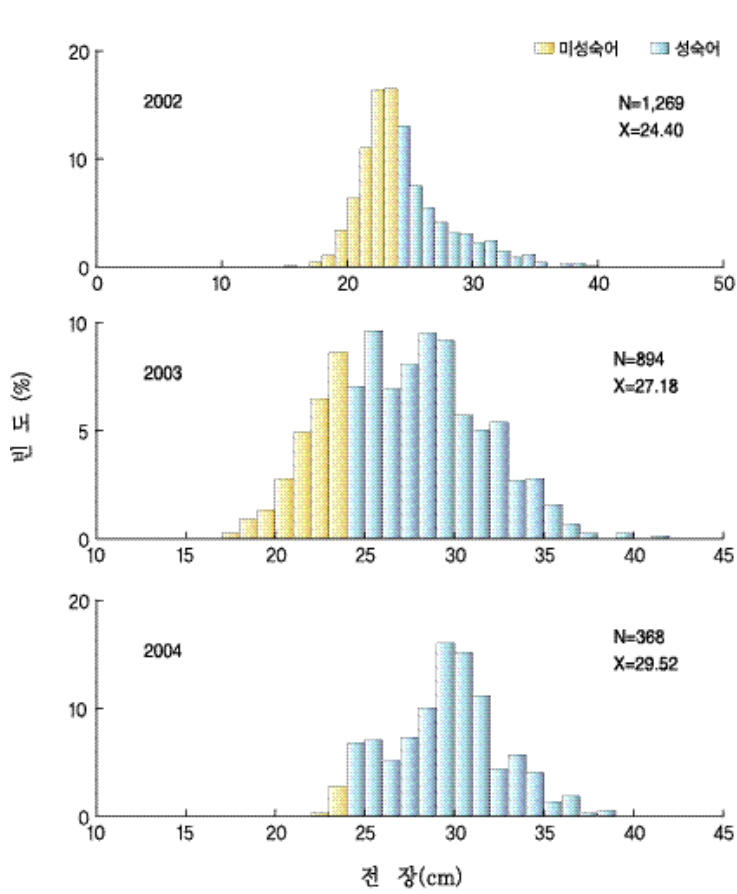


5~7
5~6
50%
(Total Length) 23.4cm

3-66.



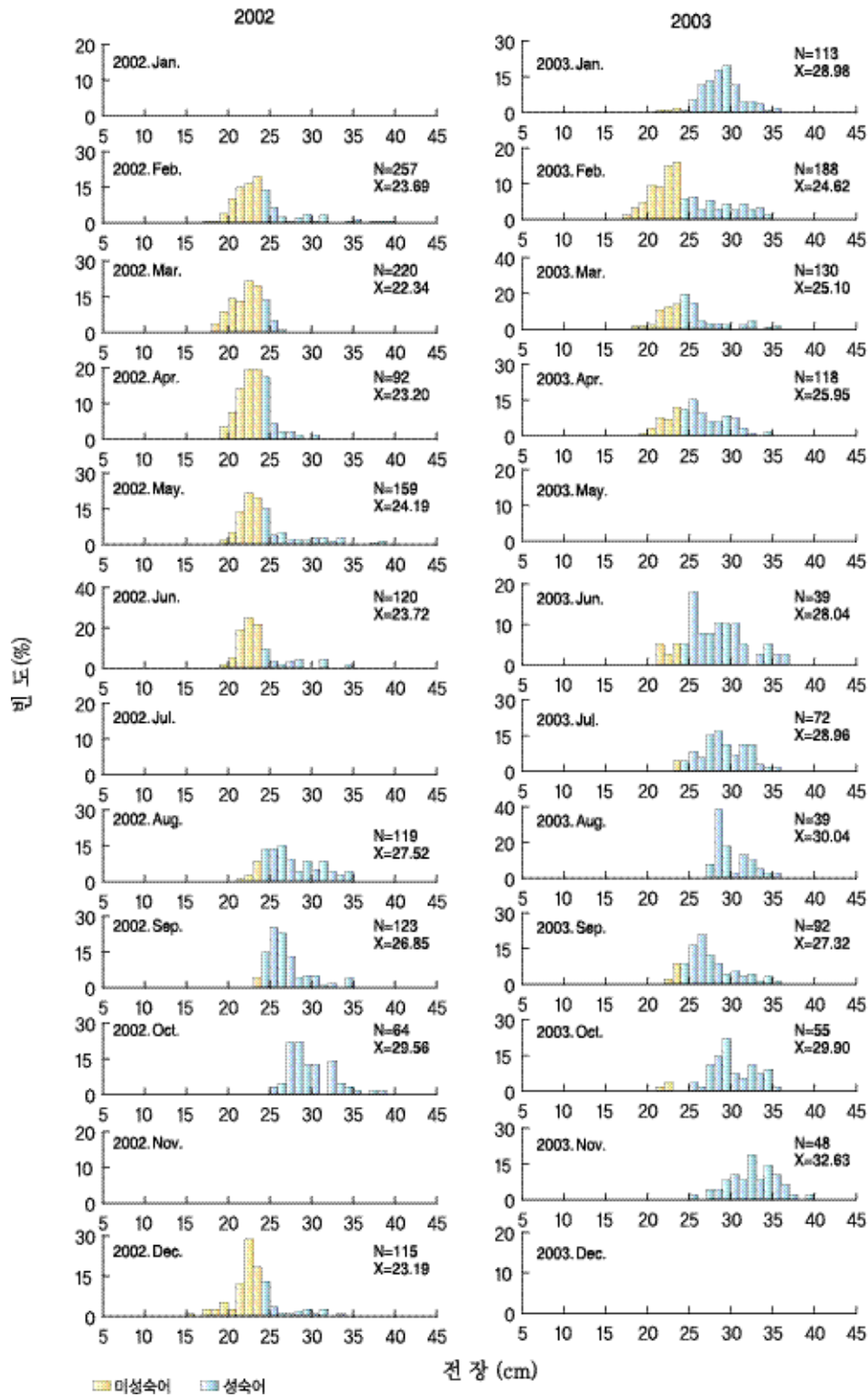
3-67.



3-68.

2002 2 ~ 6 61.6~80.5%
 2003 2 ~ 4 30%

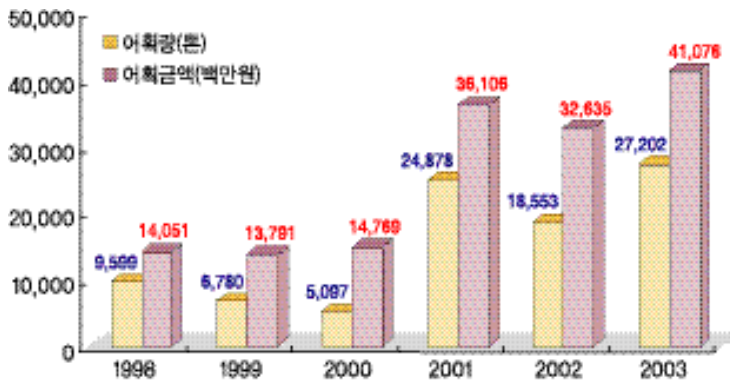
2002
 () 24.40cm (1,269), 2003 27.18cm
 (894) , 2004
 6
 29.52cm (368)
 가
 . 2002
 700
 55.2% , 2003
 226 25.3% ,
 2004 6 11 3.0%



3-69.

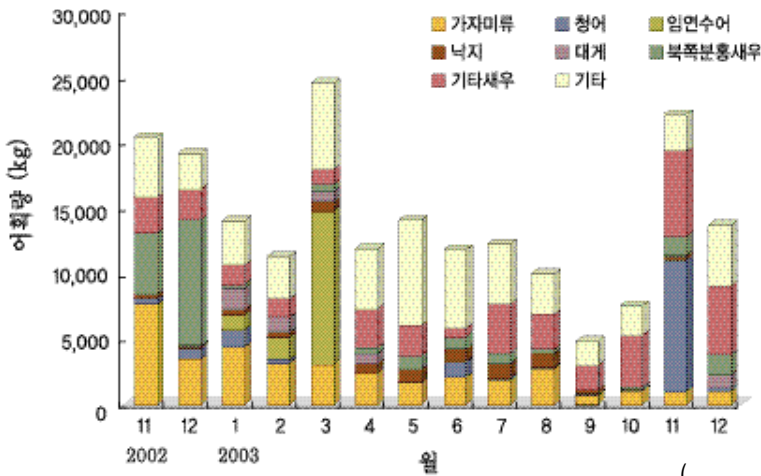
100,000
 , CPUE 1998 1,053 2001 2,151 가.
 가 CPUE 가 가

1)



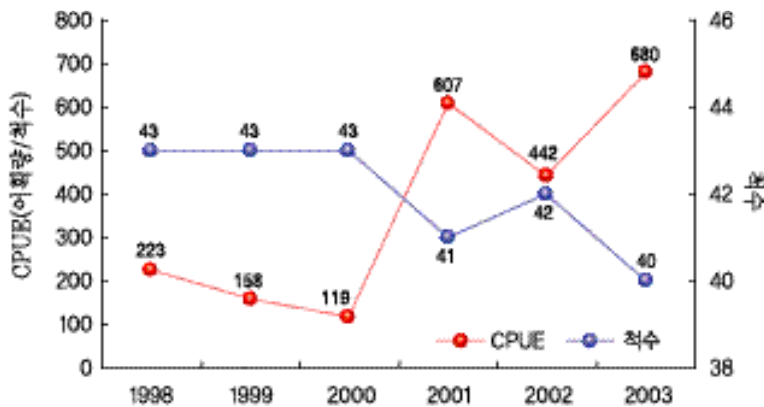
2003 27,202 가
 , 2000 5,097
 가 , 2001
 가 .

3-70.



2003 3 24,546kg 가
 , 2003 9
 4,826kg 가 .

3-71.

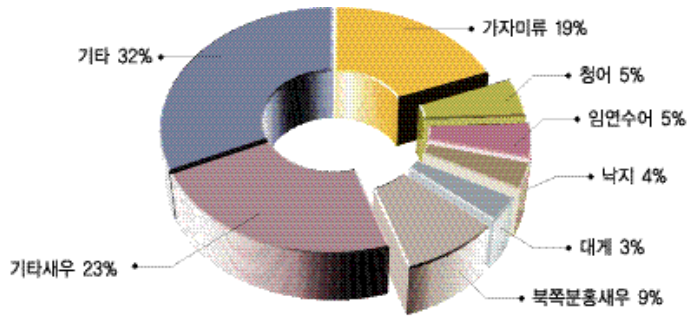


(CPUE)

1998
 2000 43 , 2001 41 ,
 2002 42 , 2003 40
 . CPUE 1998 223
 2000 119
 가 2001 607
 가 , 2002 2003
 442 , 680 가

3-72.

2)



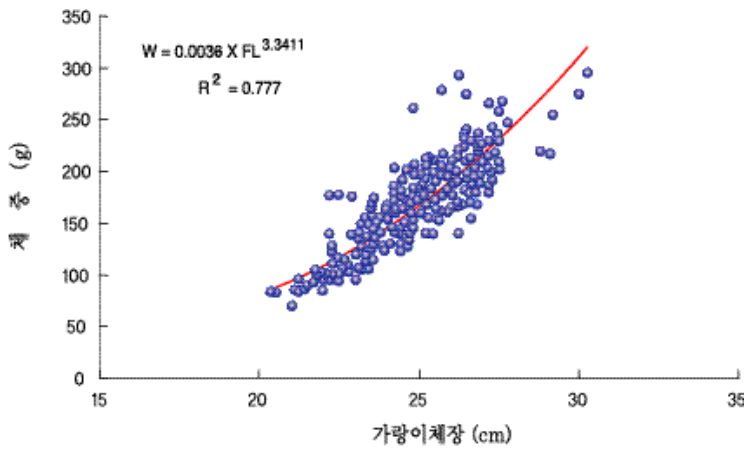
3-73.

가
32%, 가 19%,
가 5%, 4%,
3%

3)

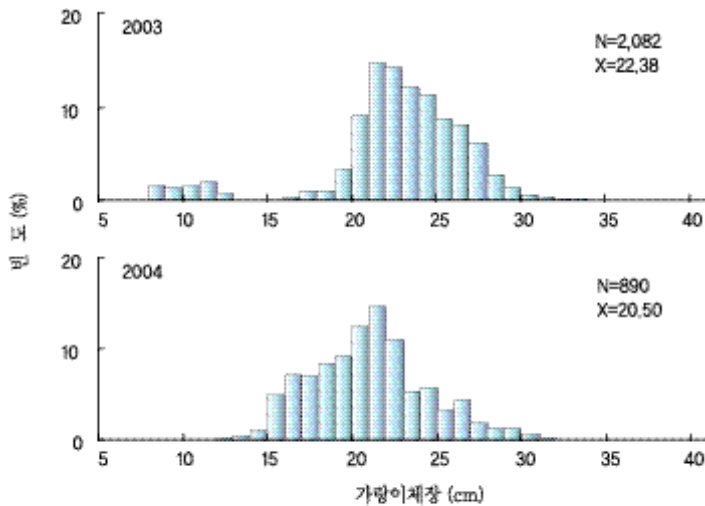
가 , , , . 가

가)



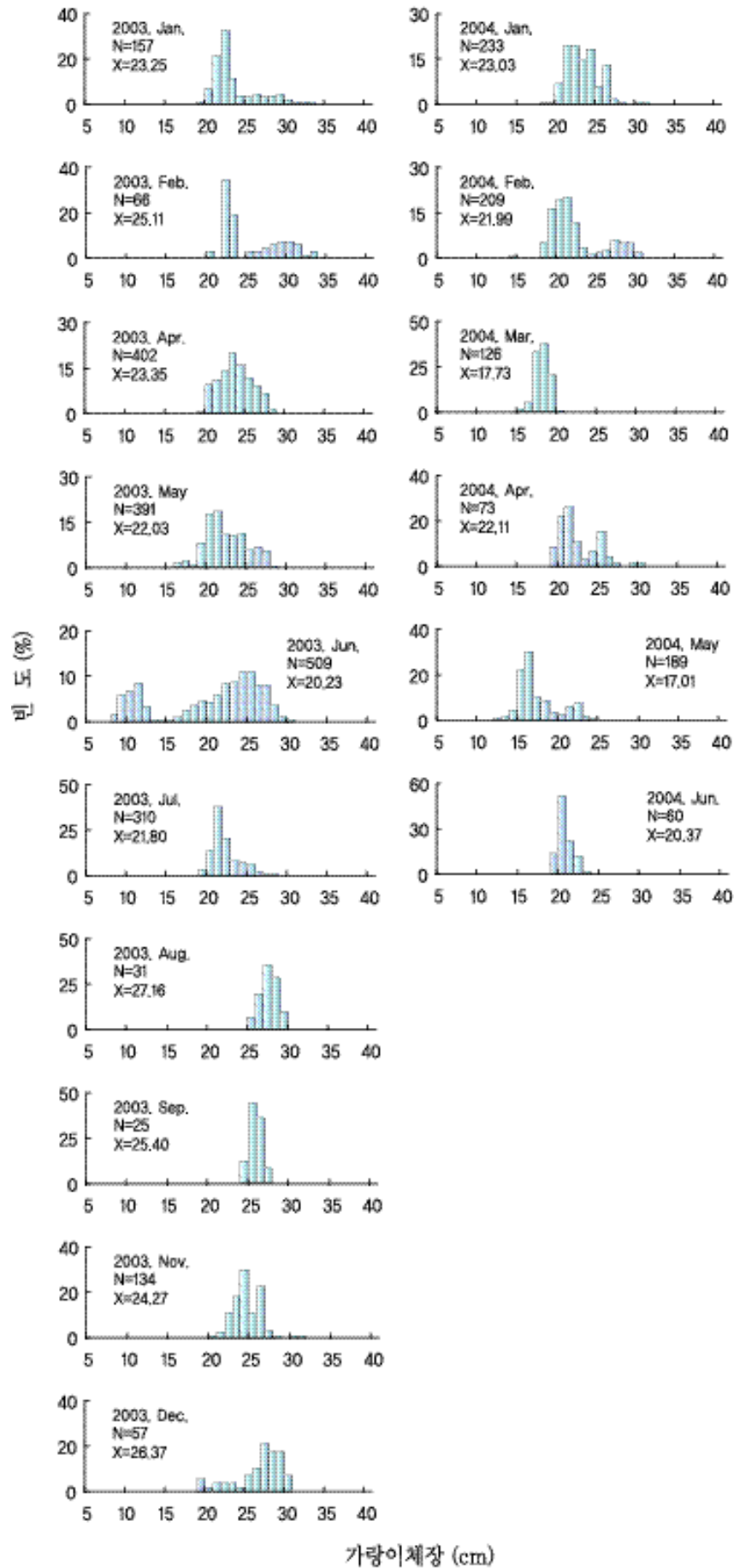
3-74.

가 (FL)
(W) W =
0.0036 × FL^{3.3411}

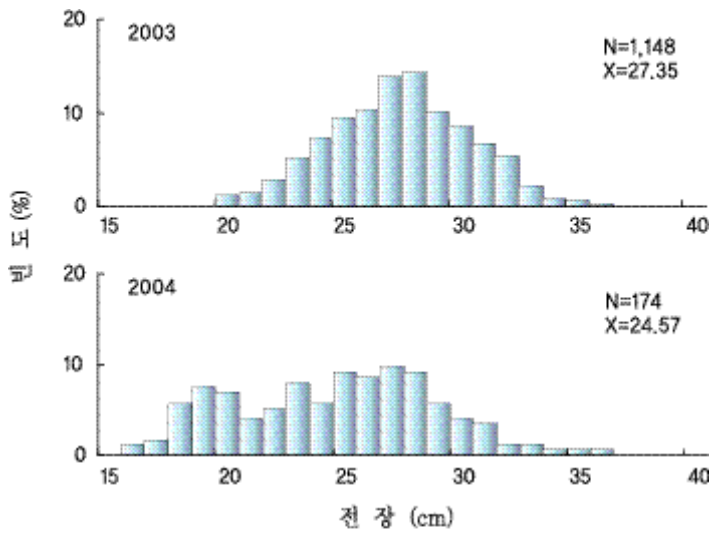


3-75.

2003 (가)
) 22.38cm ,
2004 6
20.50cm . 2004
20cm
2003 2003
10cm
2003 6 15cm
가 122 26.4%
, 2004 5
15cm 가 15
29.1%

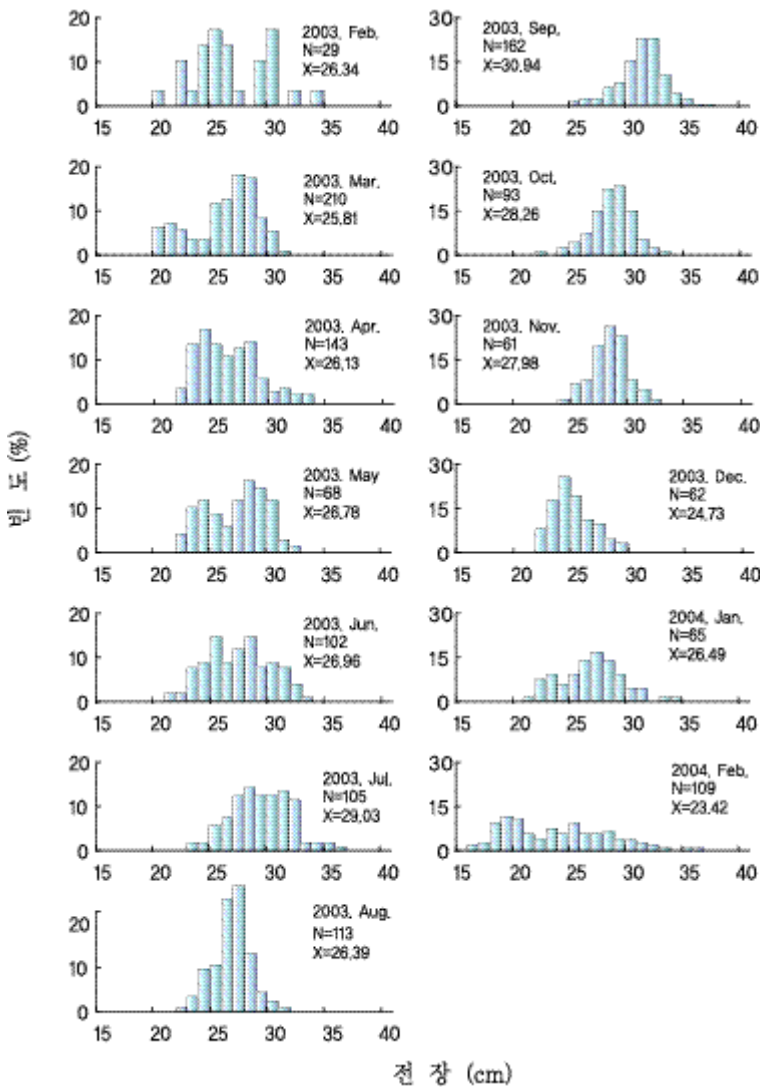


)



3-77.

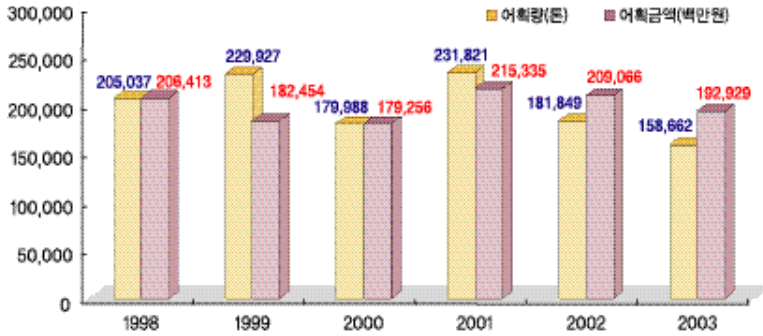
2003
 () 27.35cm (1,148) , 2004 2
 24.57cm (174)
 . 2004 20cm
 2003 2003
 2003 2 3 20cm
 , 2004 2
 20cm 가 40
 36.7%



3-78.

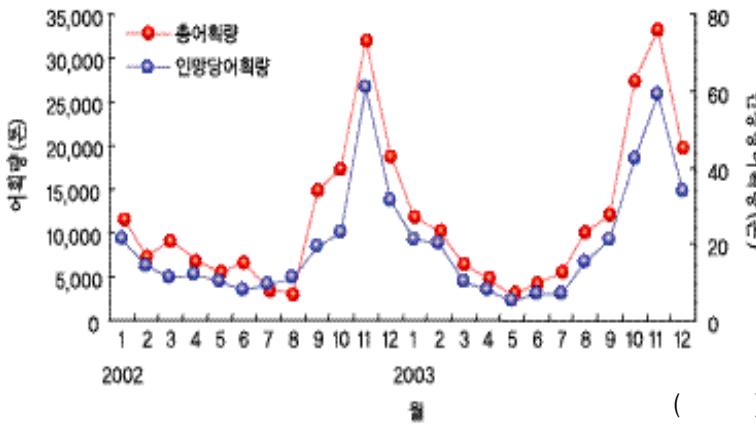
4)
 가 ,
 CPUE 1998 2000
 2001
 2003
 , 2003
 90%

1)



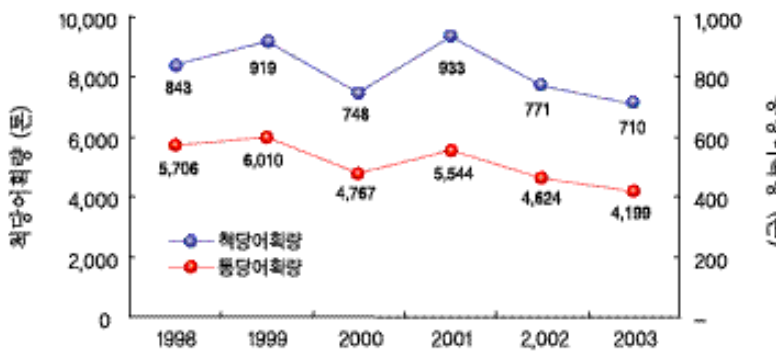
3-79.

3-79 . 2001
 1999 231,821 ,
 229,927
 , 2003 158,662
 가
 2001 가 , 2000
 가



3-80.

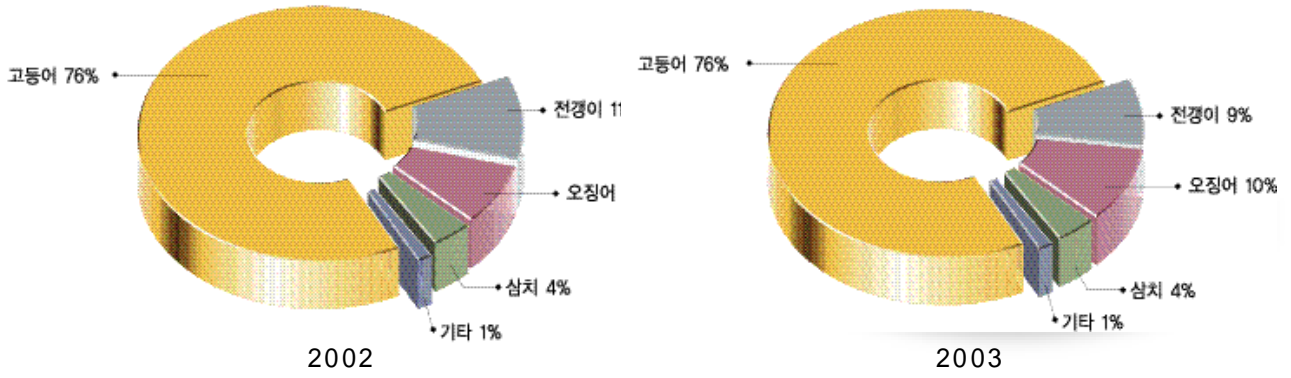
(CPUE)
 . 2002 19
 , 2003 20
 가
 , 2002
 2003 11 가
 , 가



3-81.

CPUE
 2001 가
 , 2003 가

2)

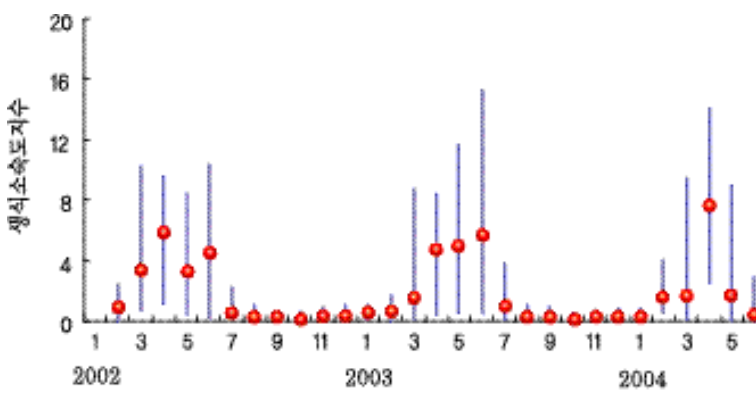


3-82.

, 2002 , , , 2003 가 .

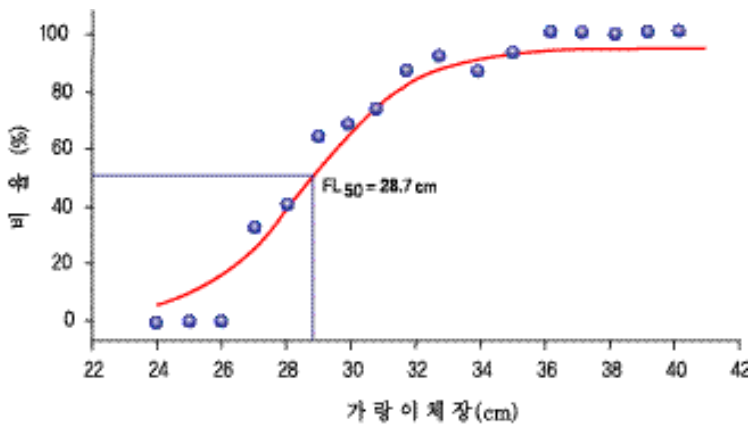
3)

가)

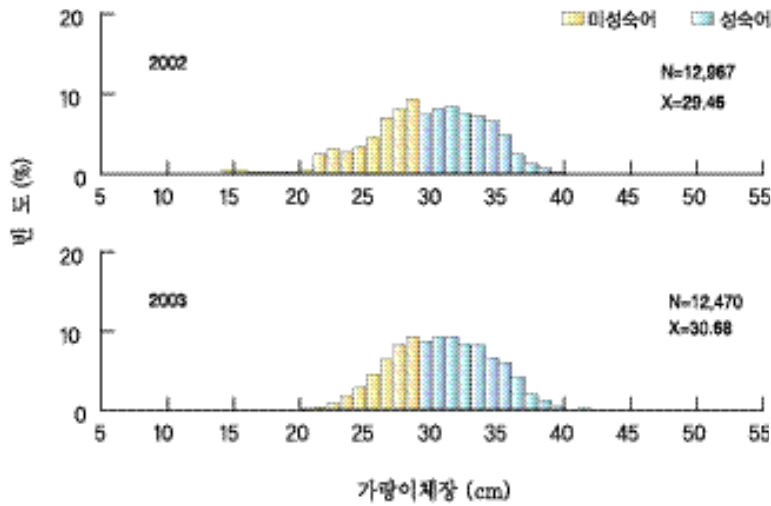


3-83.

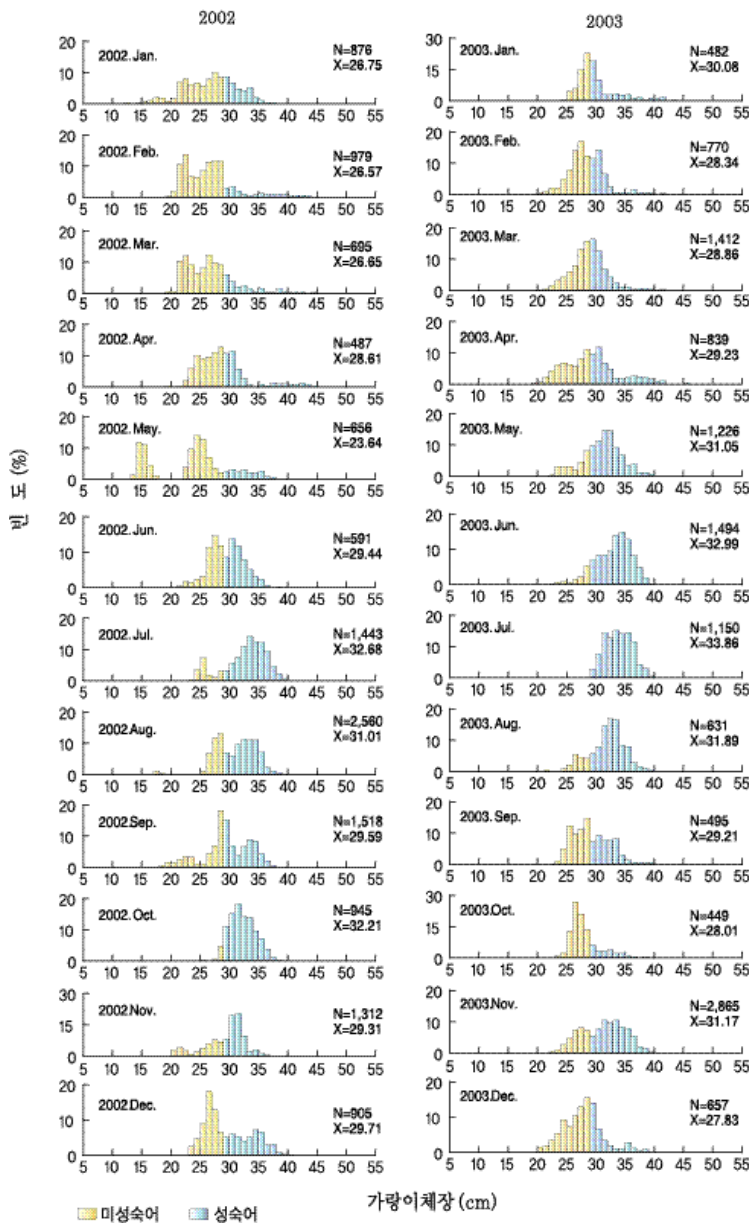
3~6
4~5
, 570,184
(FL 38.8cm), 112,447
(FL 30.1cm)
50% 가
(Fork Length) 28.7cm
, 2.4



3-84.



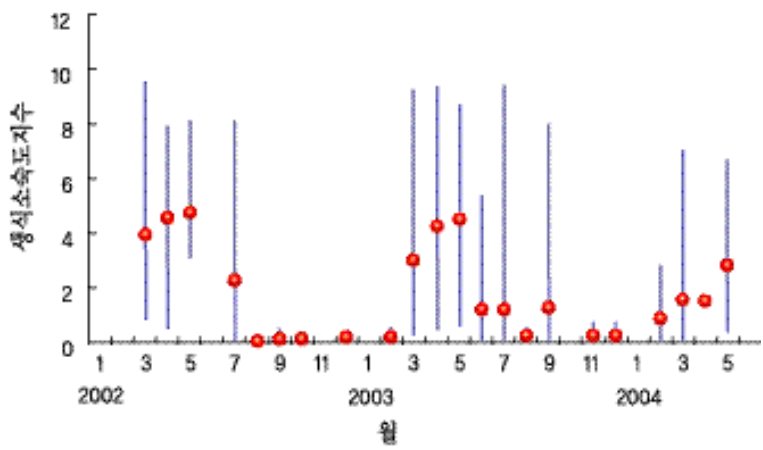
3-85.



3-86.

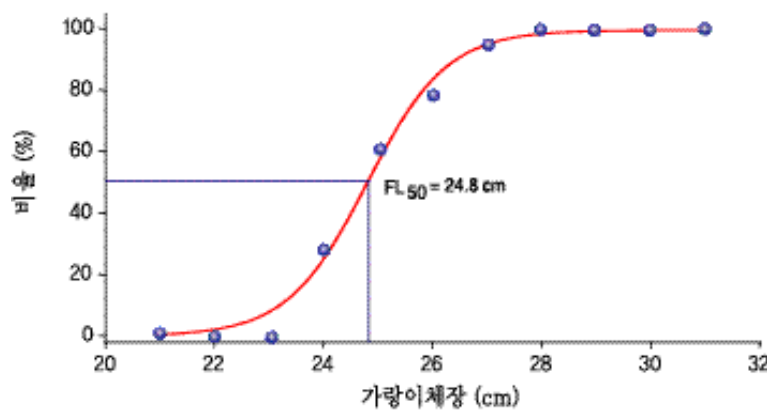
2002
 (가) 29.46cm
 (12,967) ,
 2003 30.68cm .
 2002
 5,815 44.8%
 , 2003 4,403
 35.3% .
 2002 2 5
 82.23%, 81.25%
 , 2003
 10 12 77.28%,
 66.97% .

)

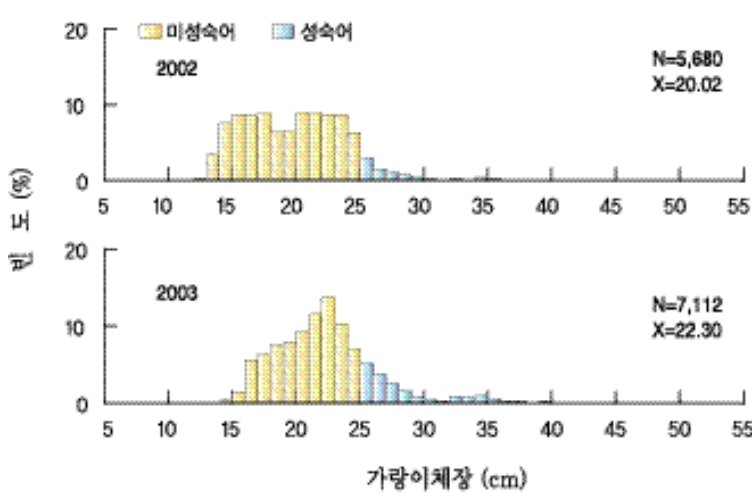


3~7
 3~5
 627,061
 (FL 40.6cm), 33,493
 (FL 27.0cm)
 50% 가
 (Fork Length) 24.8cm
 2.7

3-87.

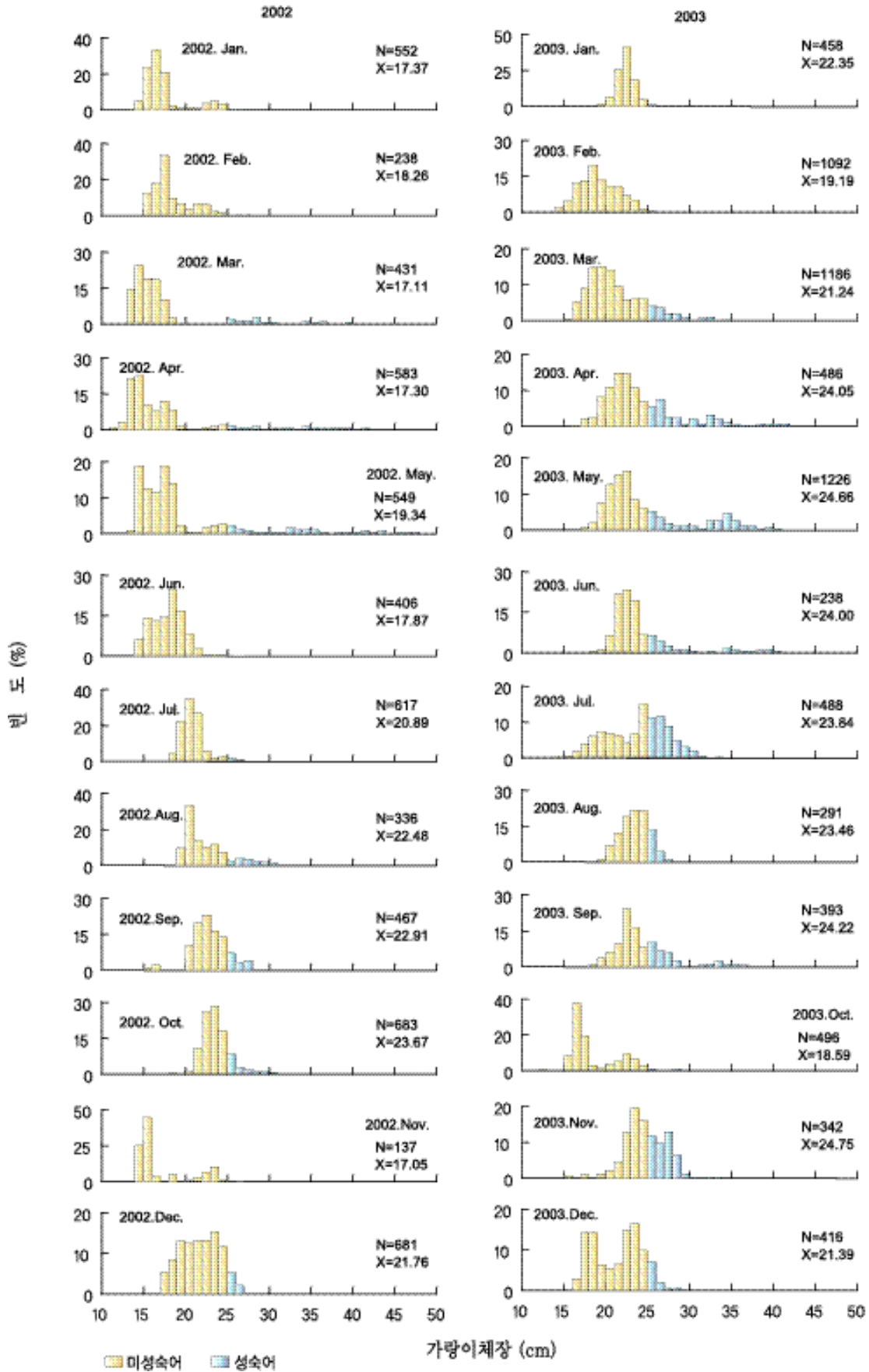


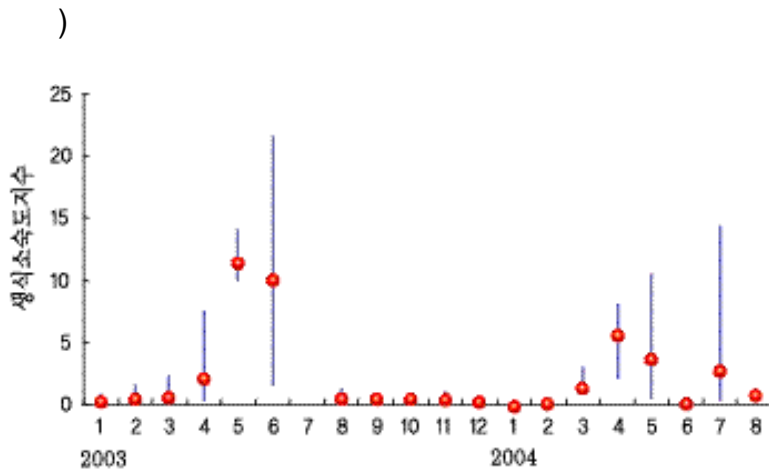
3-88.



2002
 가 20.02cm (5,680) , 2003
 22.30cm (7,112)
 5,197 91.4%
 , 2003 5,775
 81.2%
 2002 2003

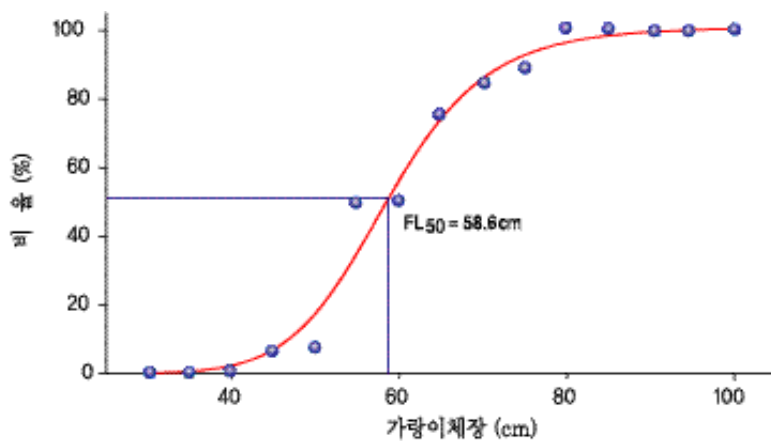
3-89.





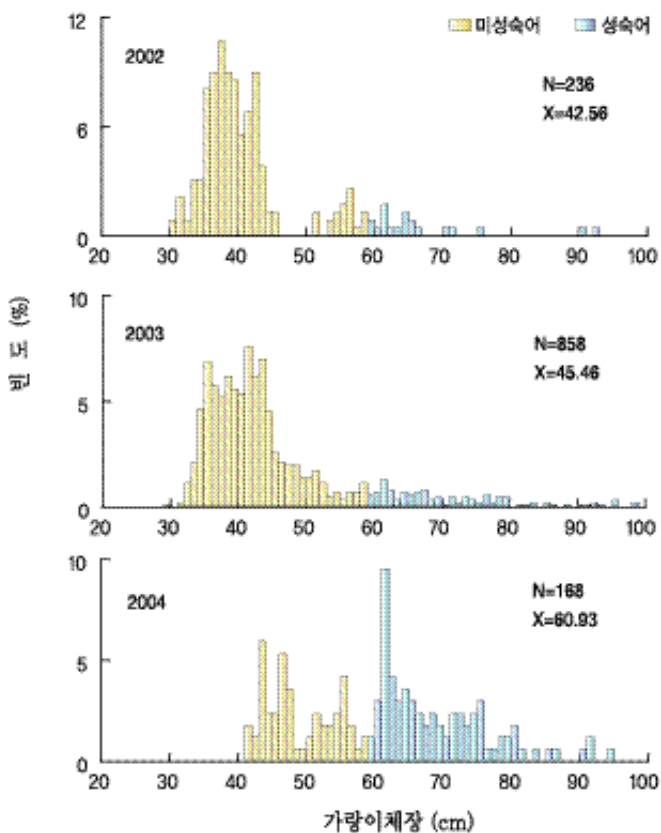
3-91.

4~7
5~6
50% 가
(Fork Length) 58.6cm



3-92.

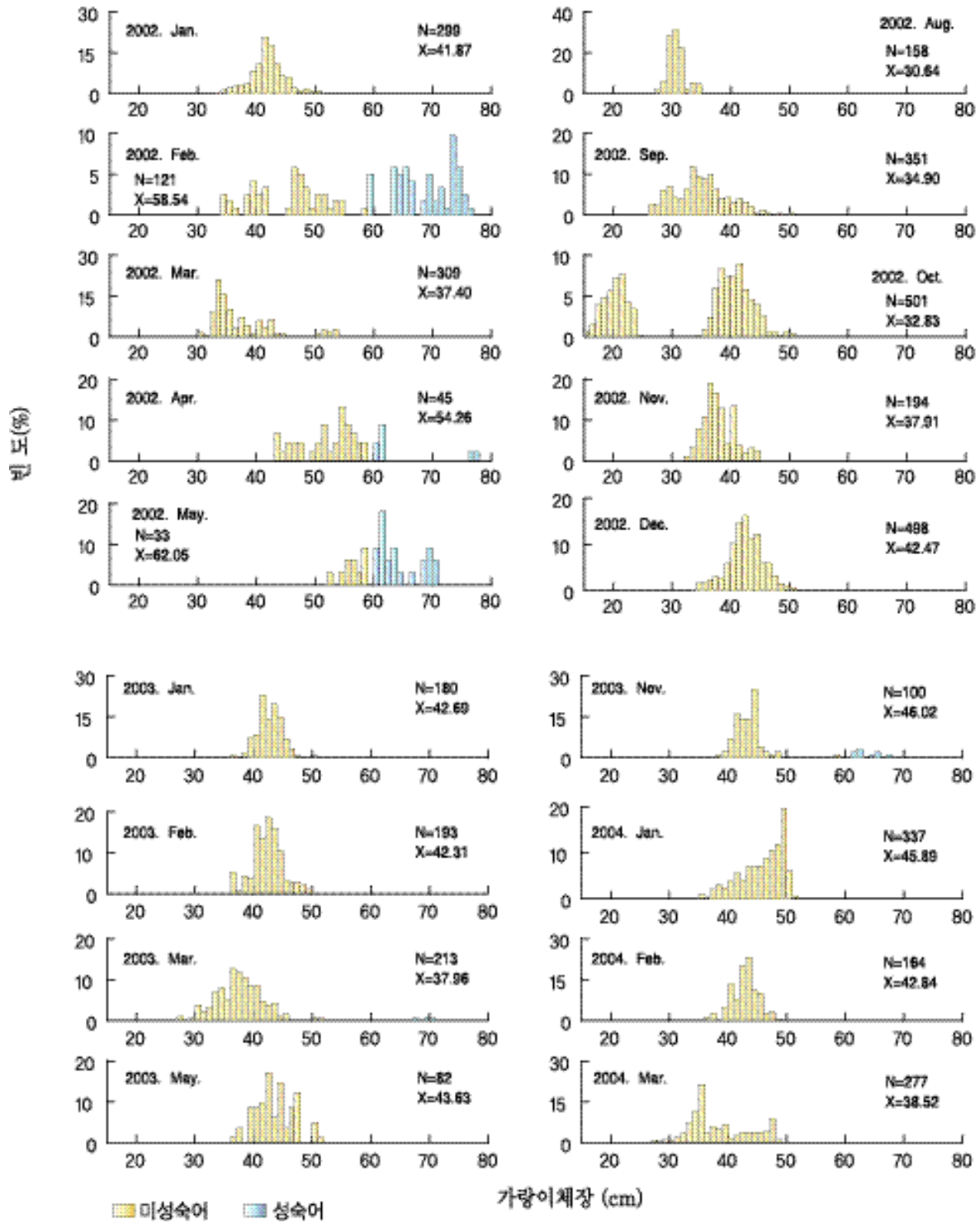
2002 가
42.56cm, 2003 45.46cm,
2004 60.93cm



3-93.

2002 가
39.25cm (
2,745), 2003 43.74cm
(1,626) ,
2004 45.82cm (
953)

2002 2,608
95% , 2003
1,496 92% ,
2004 848
89% .
2002 , 2003 , 2004

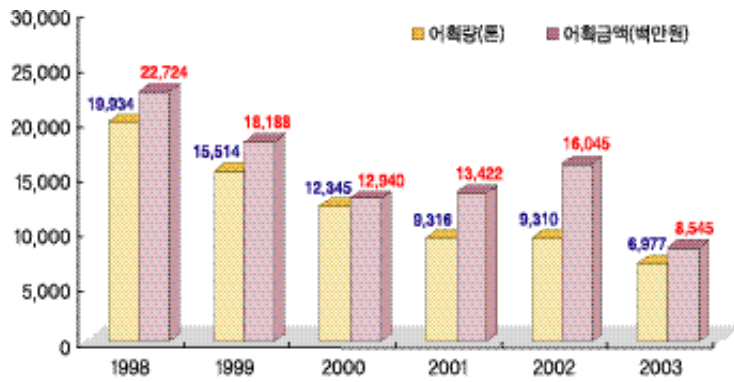


3-94.

4)

1998

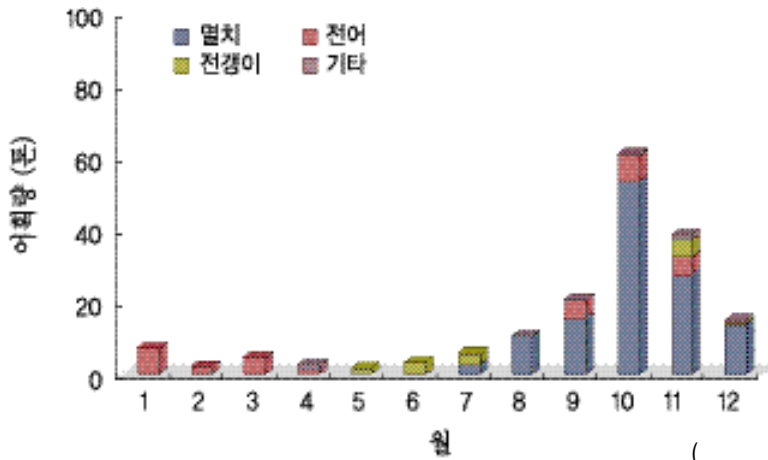
1)



3-95.

()

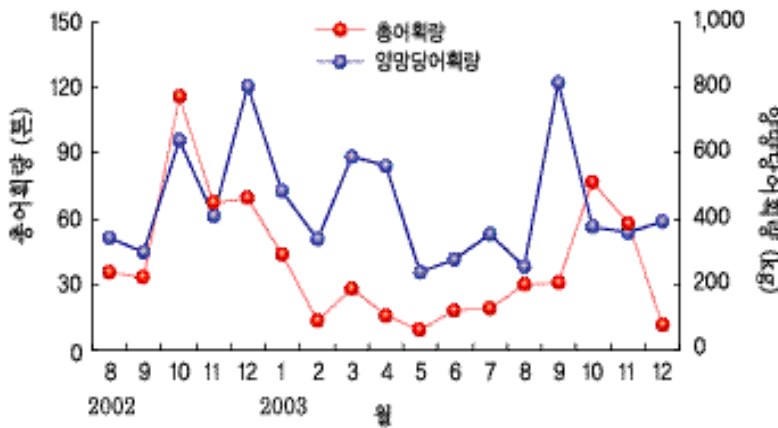
3-95
 . 1998 19,934 가
 , 2003
 6,977 가 .



3-96.

()

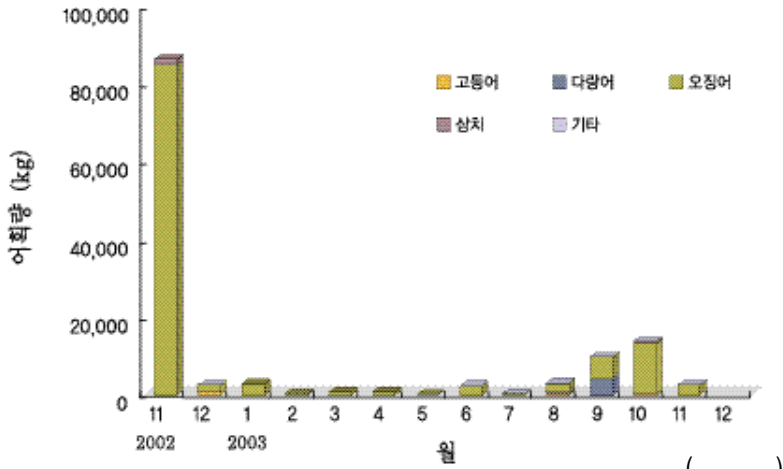
2003
 10 70
 가 , 4 6
 가
 가



3-97.

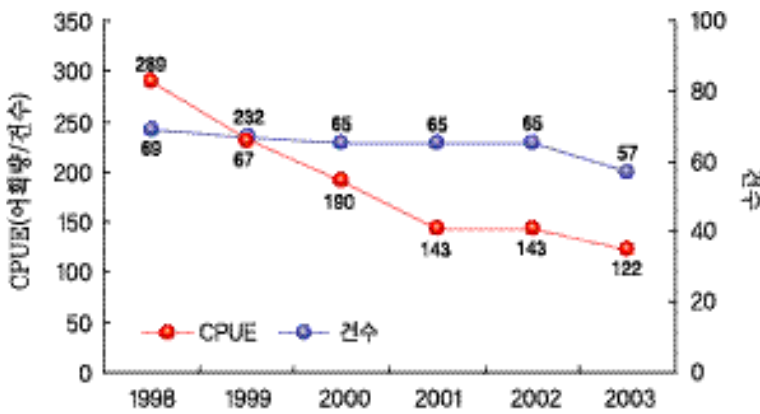
()

(CPUE)
 . 2002 0.5
 , 2003 0.4
 , 2002
 2003 9~10 가



2002 11 86,251kg
 가 ,
 . 2003 12

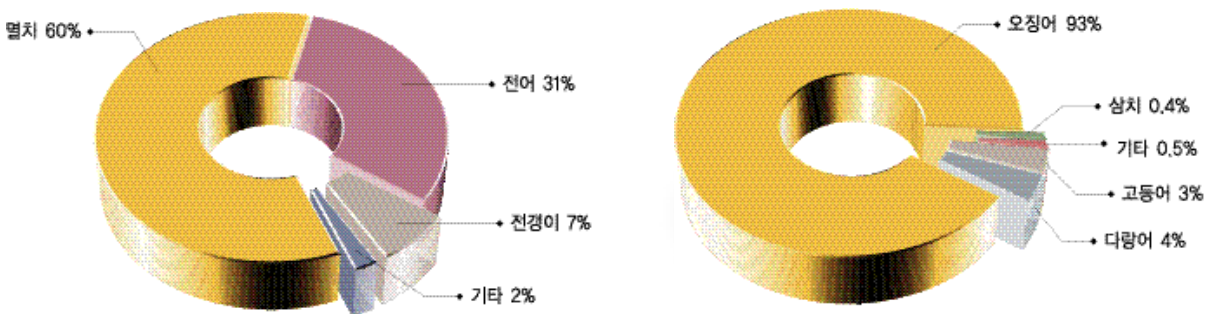
3-98. ()



CPUE
 가
 1998 289 가
 2003 가 122
 . 가 1998
 69 , 1999 67 , 2000 202
 65 , 2003 57

3-99.

2)

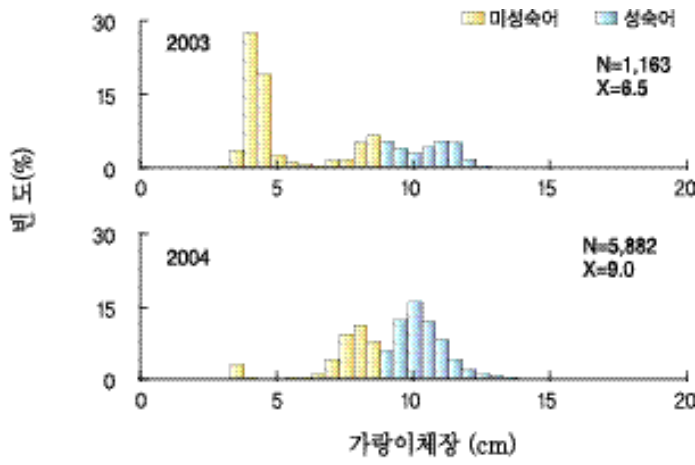


3-100.

가 60% 가 , ,
 가 93% , ,
 4%, 3% .

3)

가)



2003

41.7%

, 2004

226

25.3%

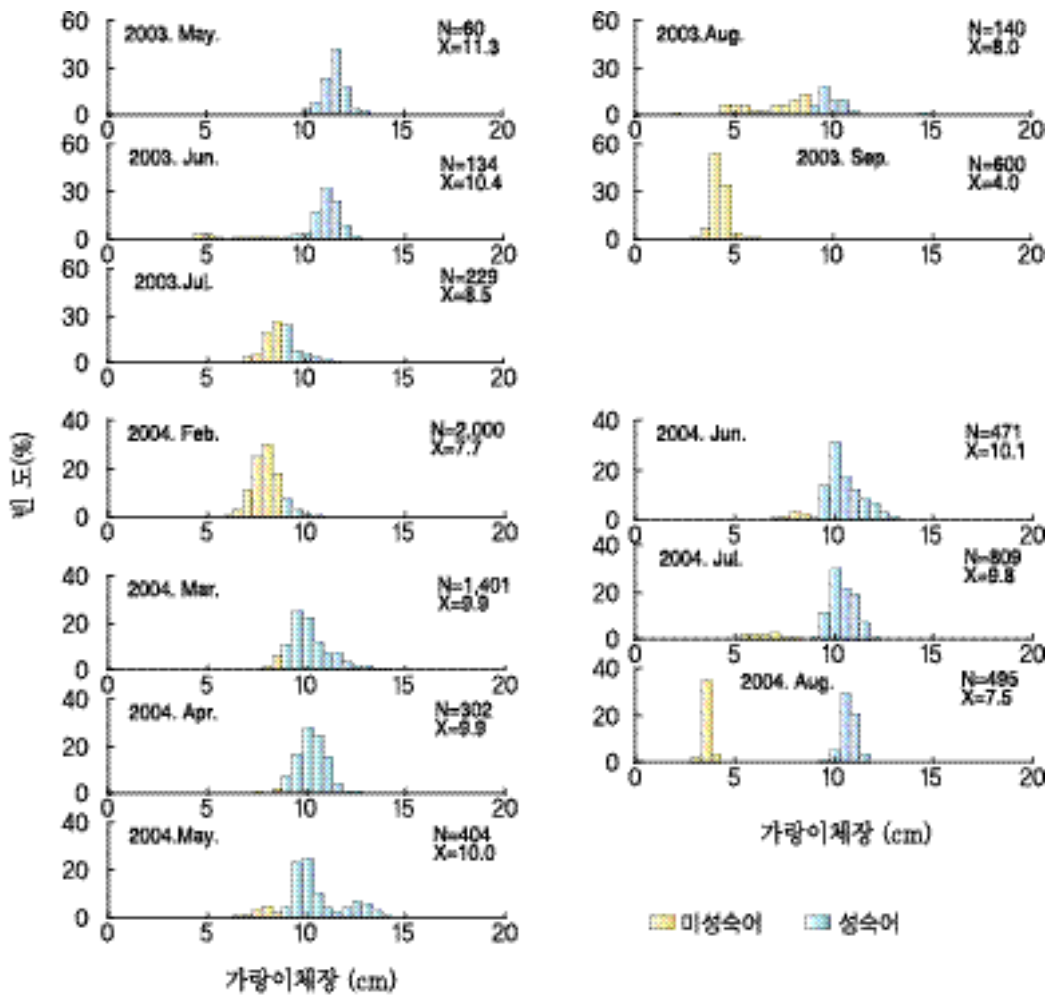
7 9

가

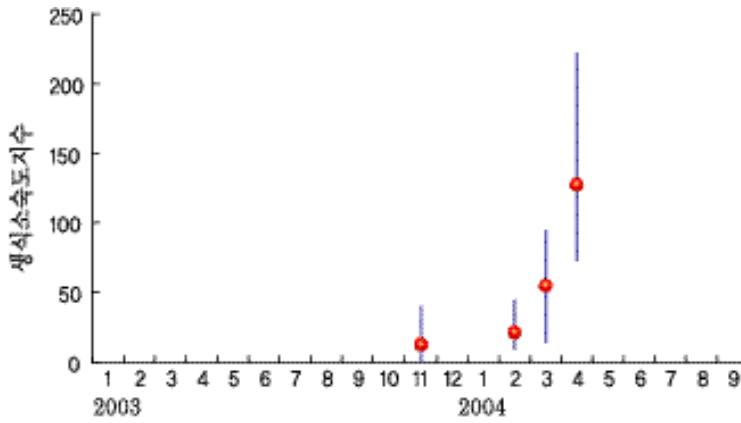
3 7

가

3-101.

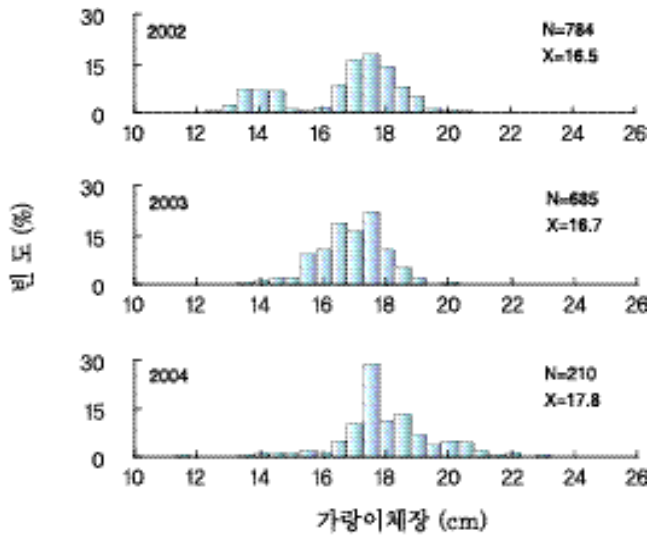


3-102.



3-103.

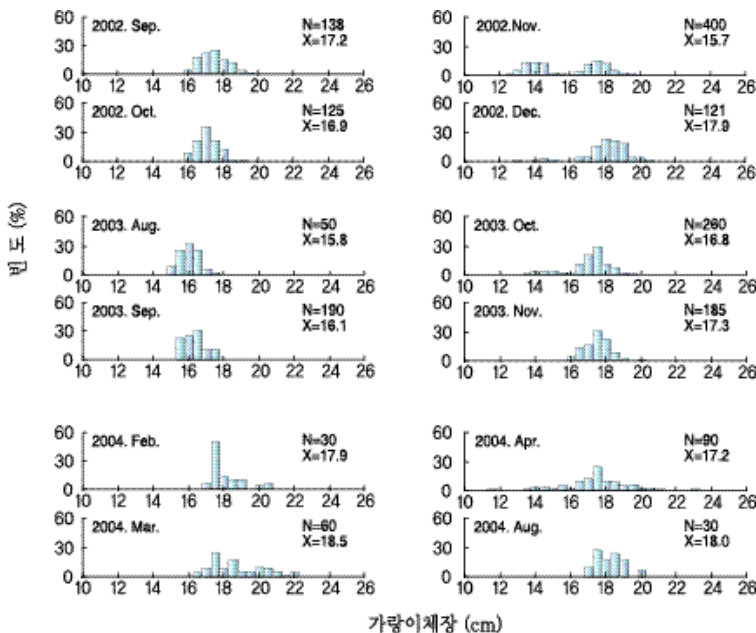
4~8
6~7
50%
가 (Fork Length)
11.0cm



3-104.

2002 (가)
) 16.5cm (
784) , 2003
16.7cm (685)
2002 2003

11~12
가 , 10
가

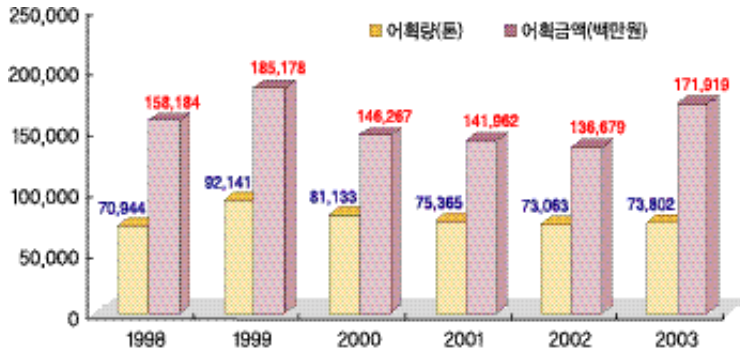


3-105.

4)

CPUE

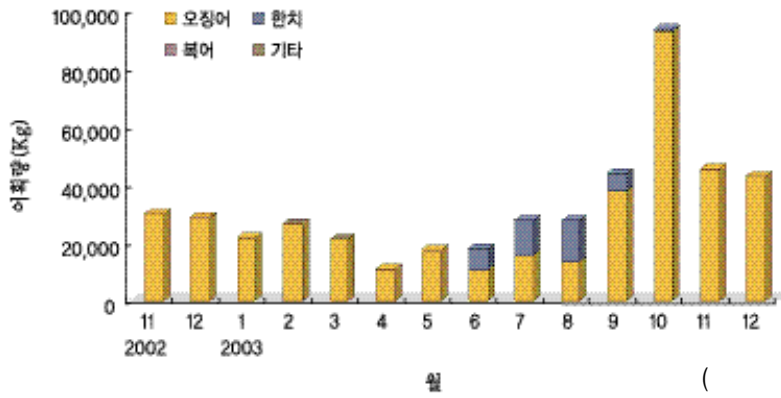
1)



1999
92,141 가 ,
1998 70,944 , 2000
81,133 , 2001 75,365 ,
2002 73,063 , 2003
73,802 .

()

3-106.

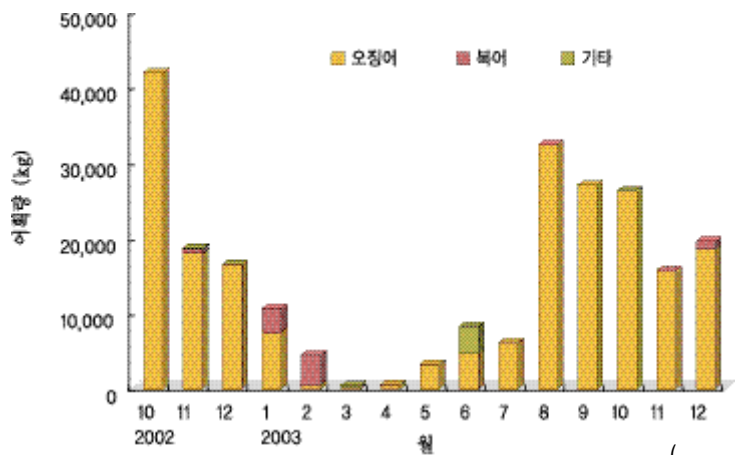


2003 10
93,587kg 가 ,
2003 4 10,980kg 가

()

3-107.

()

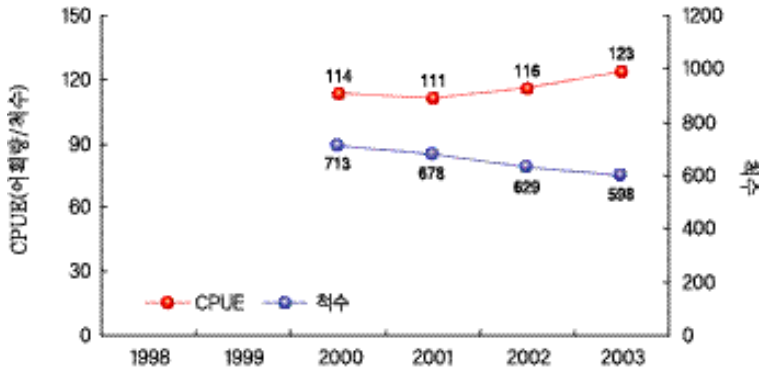


2002 10 41,843kg
가 , 3 , 4
355kg, 569kg 가
 , 3 7

()

3-108.

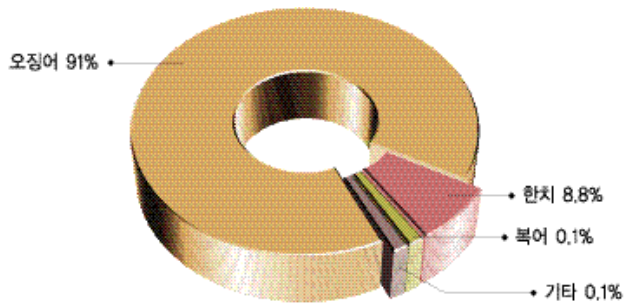
()



(CPUE)
 2000
 713 2003
 2003 598
 CPUE 2000
 114

3-109.

2)

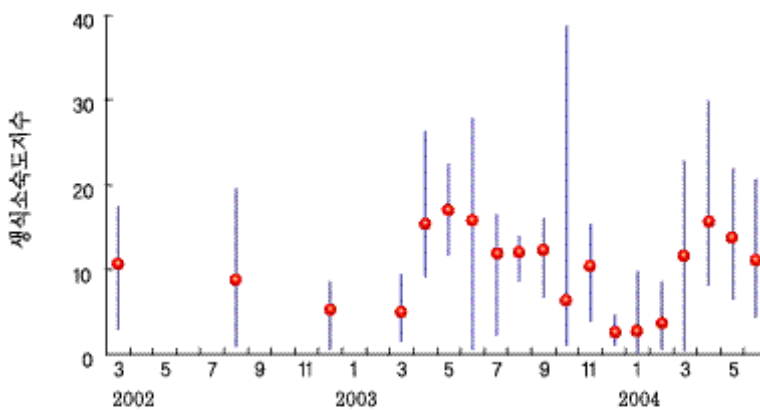


가
 91%
 8.8%, 0.1%

3-110.

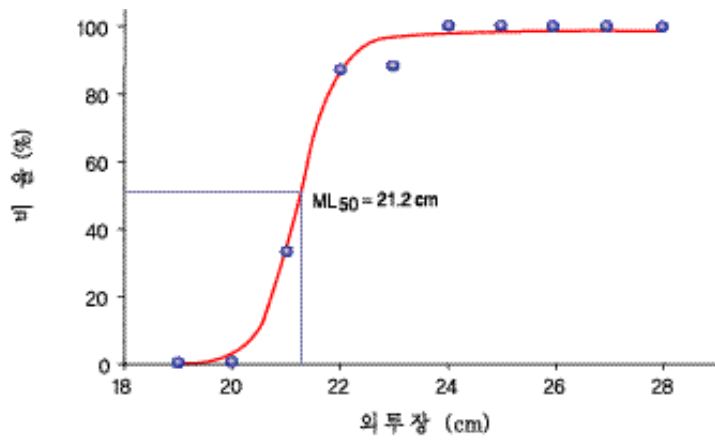
3)

가)

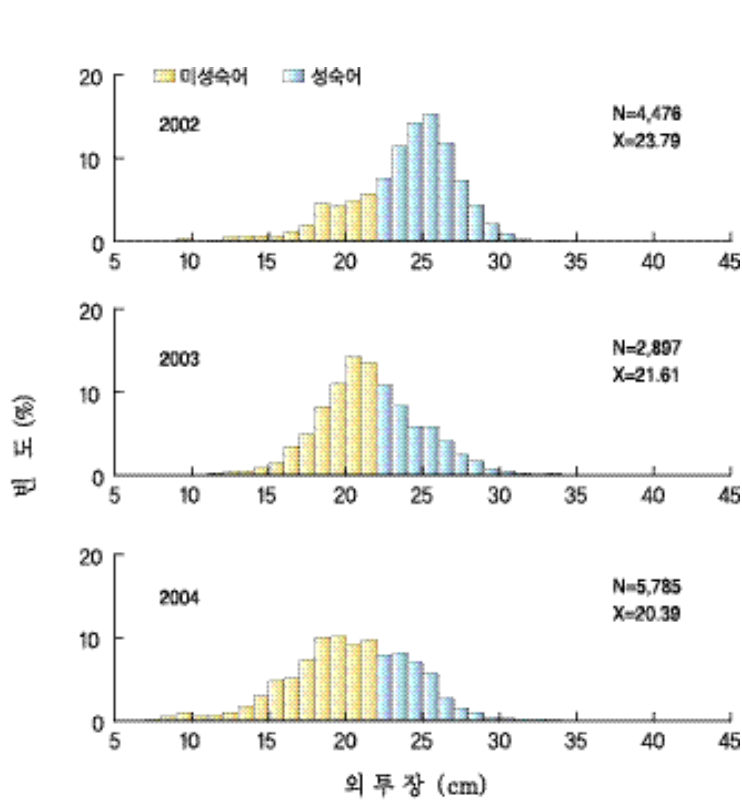


12~2
 50%
 (Mantle
 Length) 21.2cm

3-111.

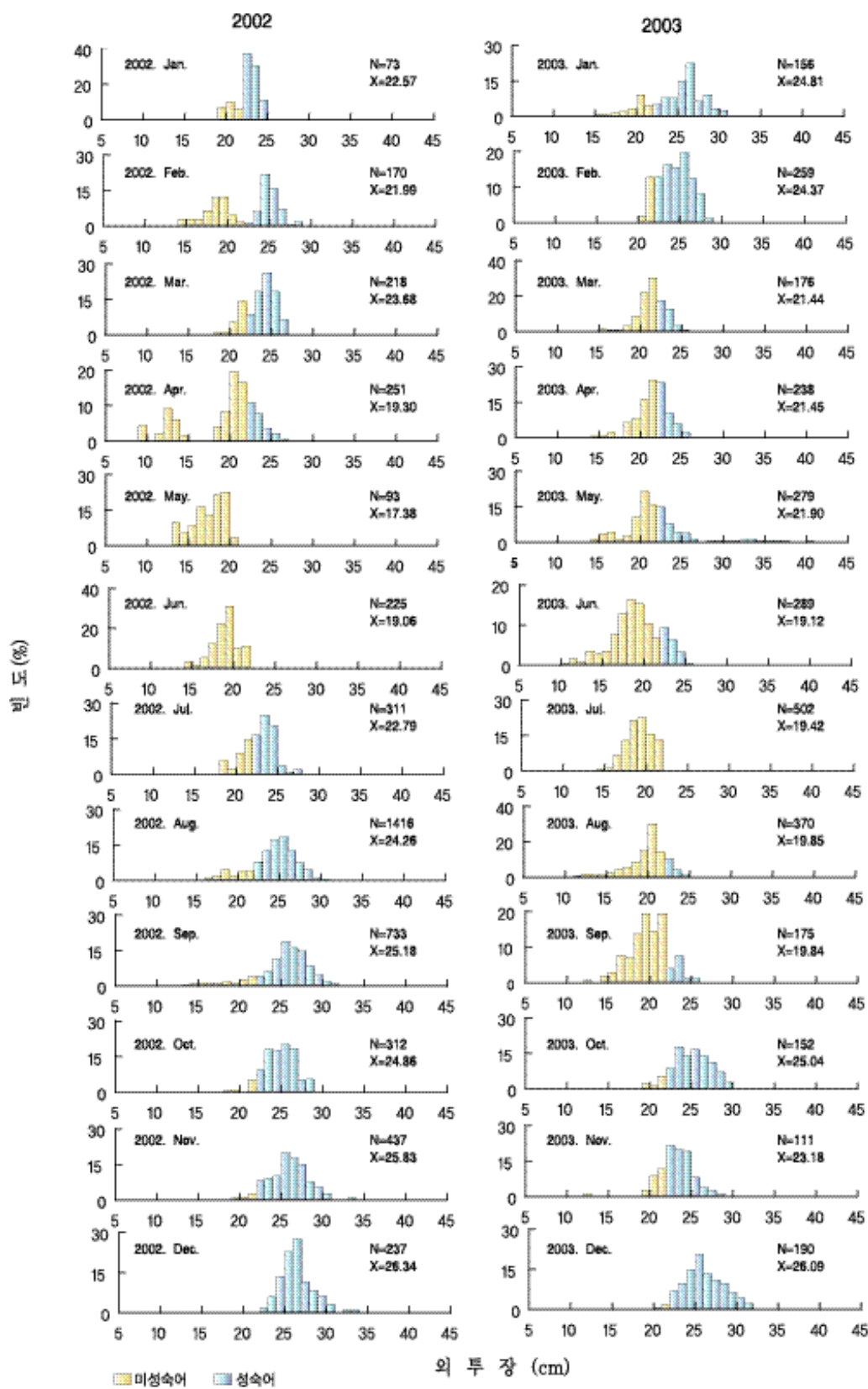


3-112.



3-113.

2002
 23.79cm (4,476) , 2003 21.61cm (2,897) ,
 2004 6 20.39cm (5,785)
 . 2002
 1,128 25.2% , 2003 1,706 58.89% , 2004 6 3,751 64.8%
 . 2002 , 2003 10



3-114.

4)

13,745
(CPUE)

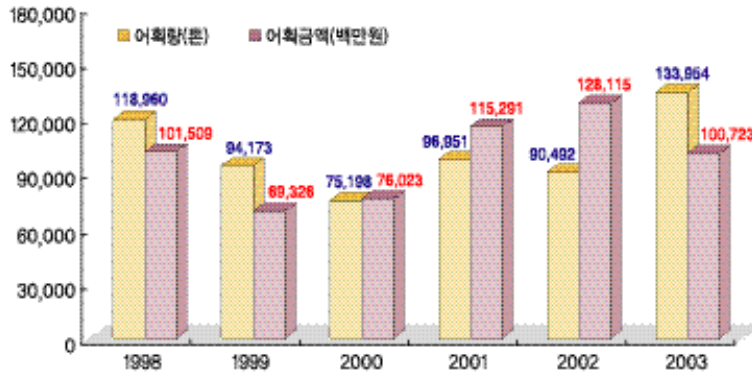
1998 2000 5,290 7,912
가

2001 2003

7,140

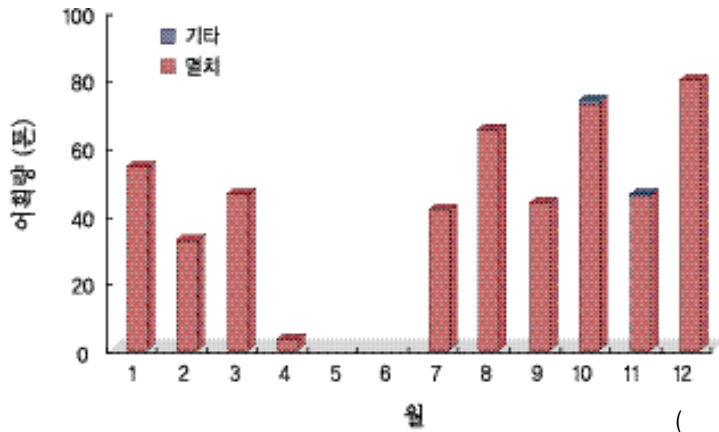
가

1)



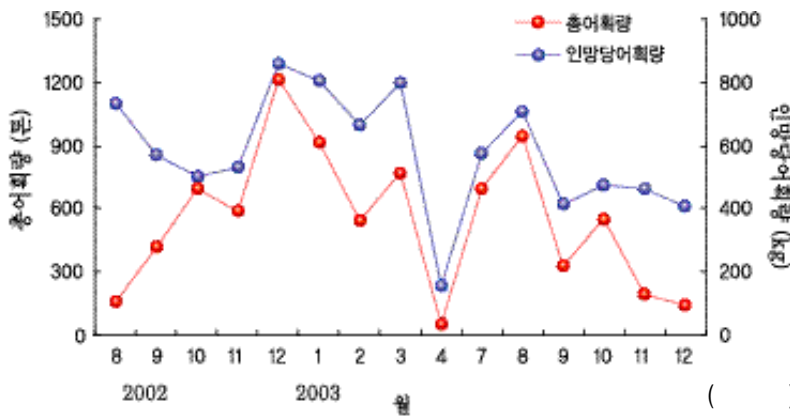
3-115.

3-115
2003
133,954 가
, 2000 75,198
가
2002 가



3-116.

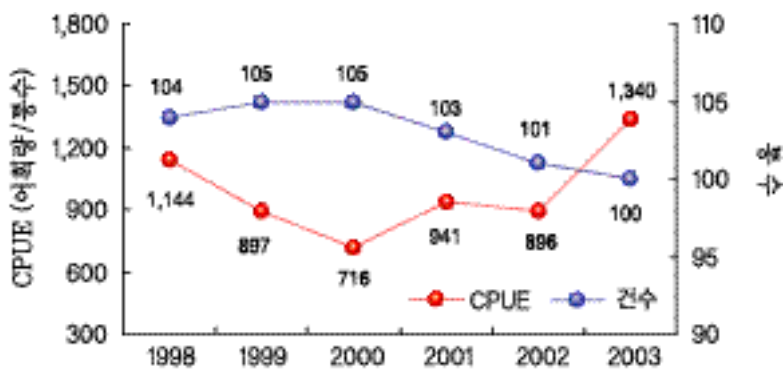
2003
12 85
가 , 4 가
5 6



3-117.

(CPUE)
. 2002
0.6 , 2003
0.5
, 2002 12 가

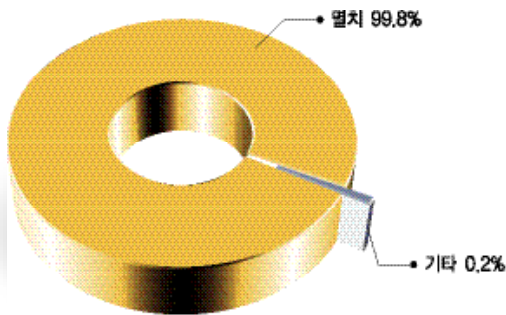
CPUE



3-118.

1998 1,144 2000
716
2111 941 , 2002 896
2003 1,340 가
1998 104 2003 100

2)

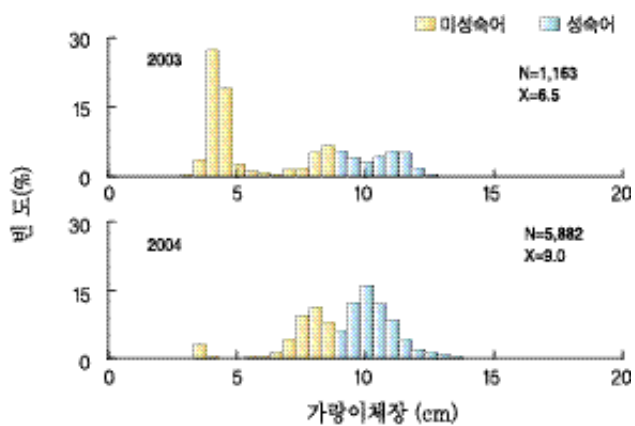


3-119.

가 99.8%

3)

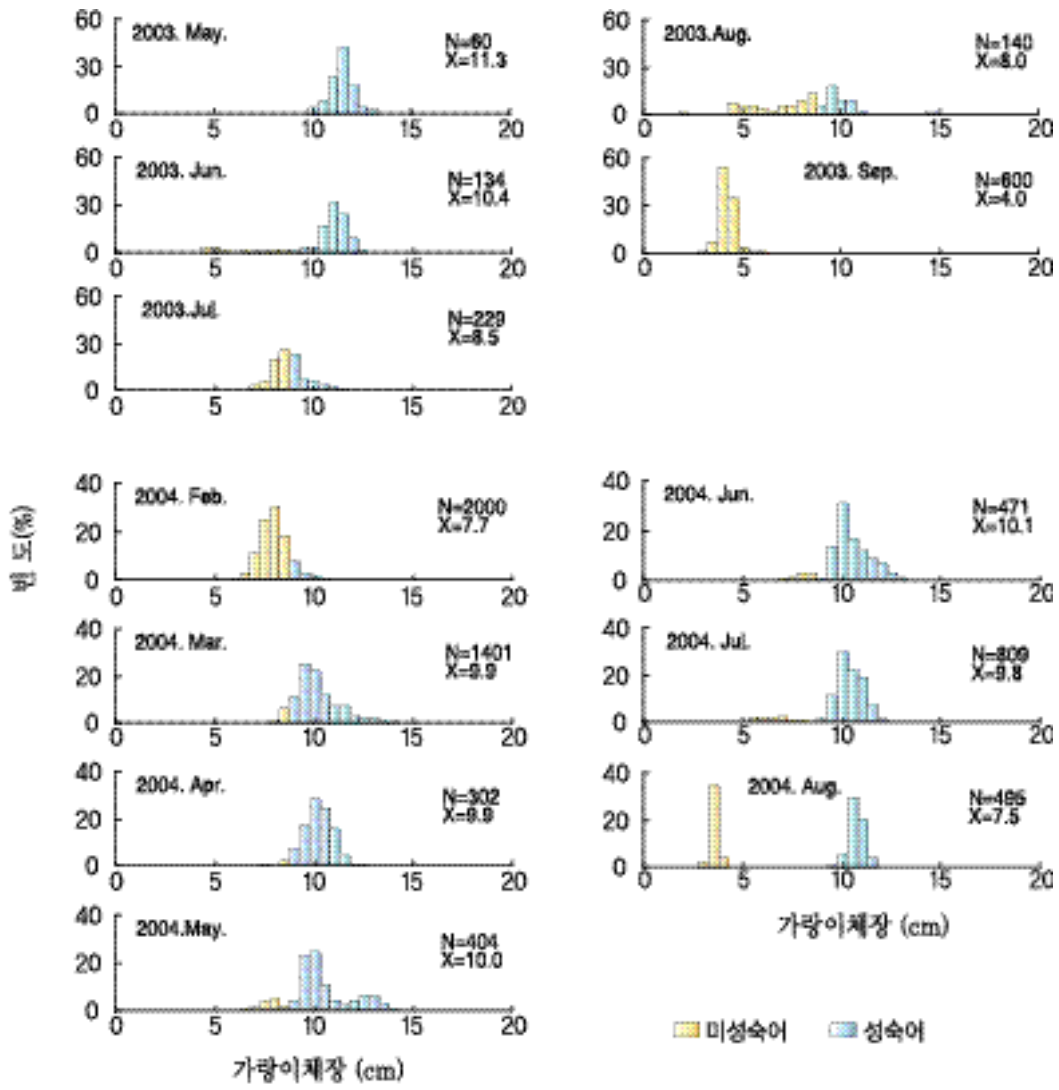
가)



3-120.

16,000
1,700
2003 (가
) 6.5cm (
1,163) , 2004
9.0cm (5,882)
2003
(가

9.0cm) 44.8% , 2004 35.3%
2003 7 9 , 가

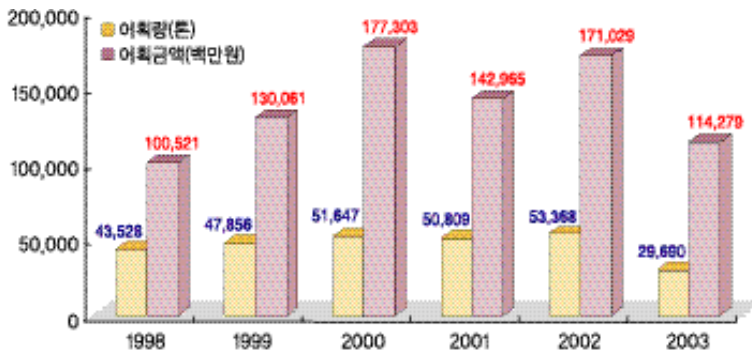


3-121.

4)

(CPUE)

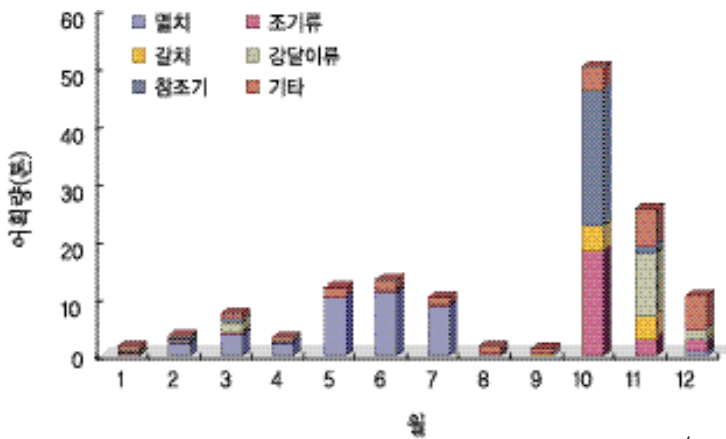
1)



2002 53,368
 가 , 2003 29,690
 가 , 1998
 2001 43,528 51,647

()

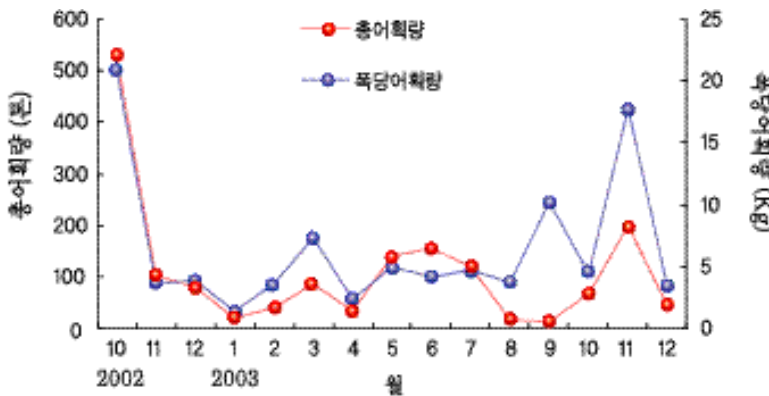
3-122.



가
 가 가
 ,
 53 가 , 10
 1 가 , 9
 가
 , 가
 , 가

()

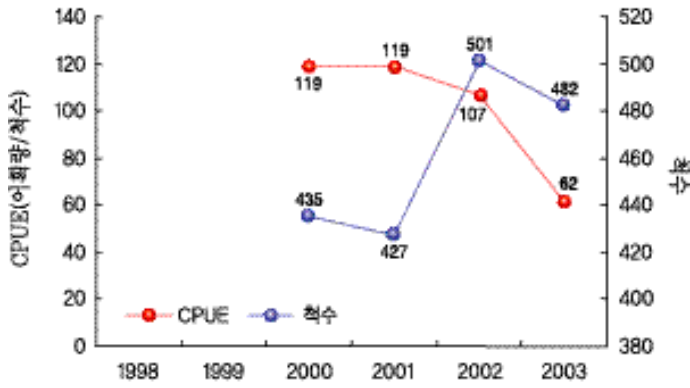
3-123.



(CPUE)
 , 2002
 10 가
 , 2003 11

()

3-124.

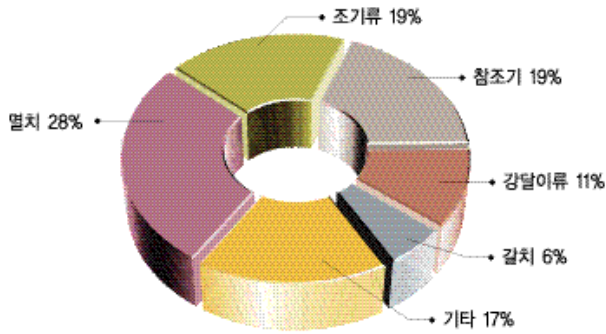


3-125.

(CPUE)

2000 435 , 2001
427 , 2002 501 , 2003
482 . CPUE
2000, 2001 119
2002 107 , 2003 62

2)

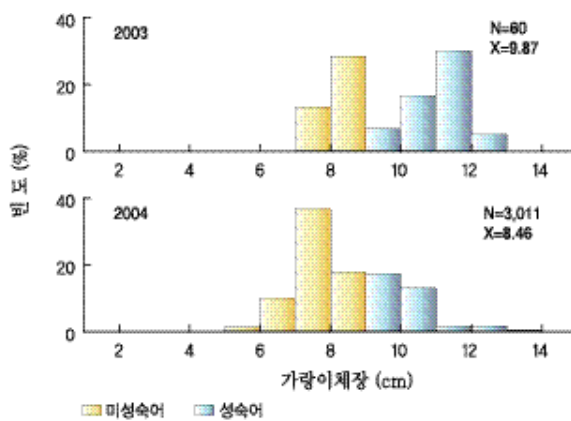


3-126.

, 가 28% 가

3)

가)



3-127.

2003 (가
) 9.87cm (

60) , 2004
8.46cm (3,011)

. 2003

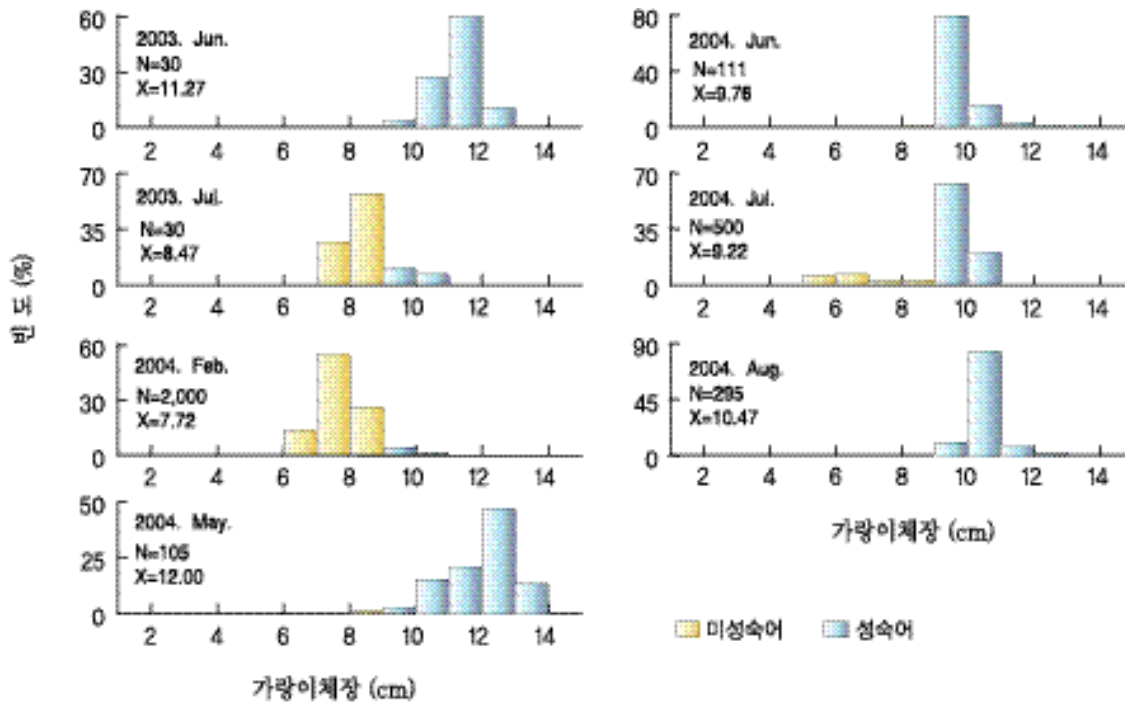
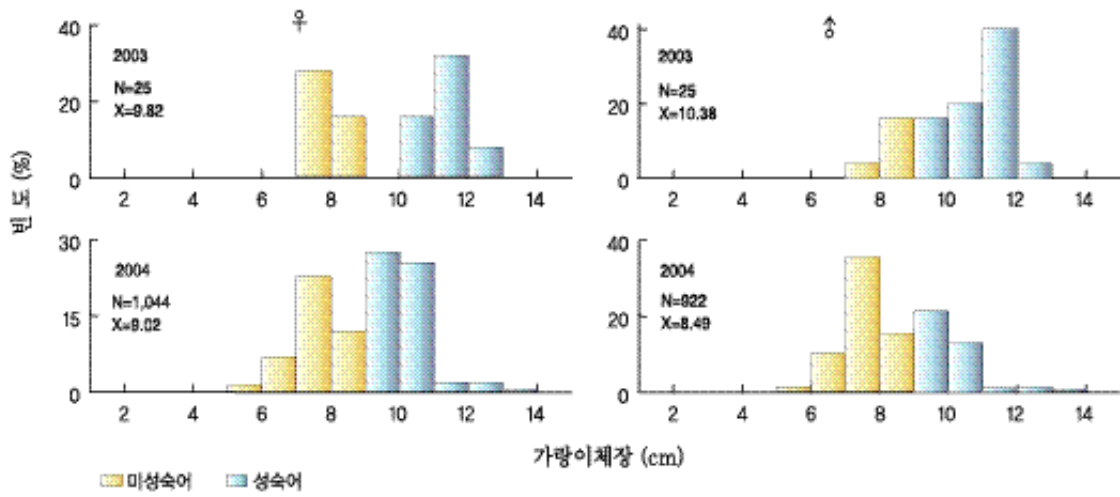
41.7%
, 2004 226

25.3% , 2004 6
1,987 65.9%

가

5 8

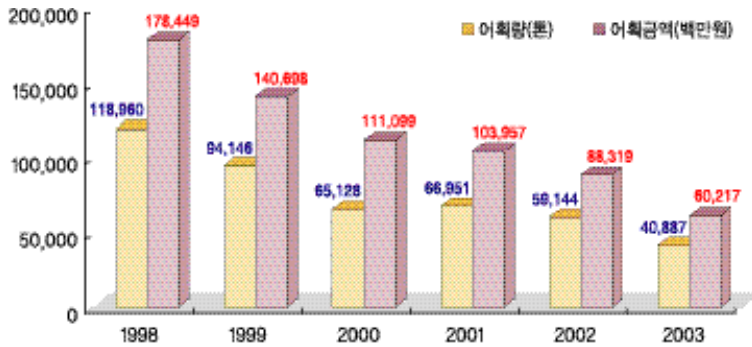
가



3-128.

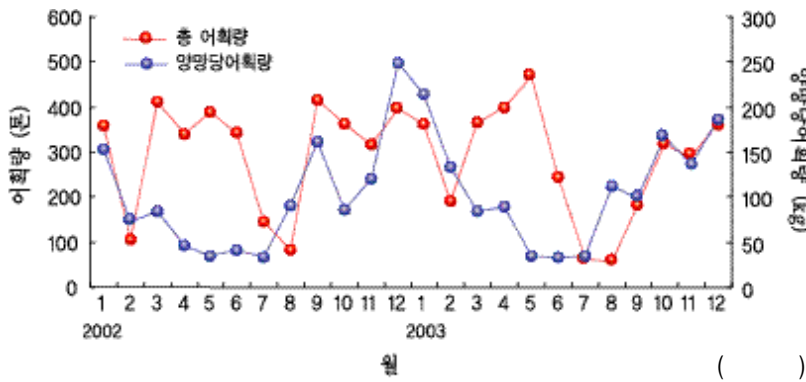
4)

1) (CPUE)



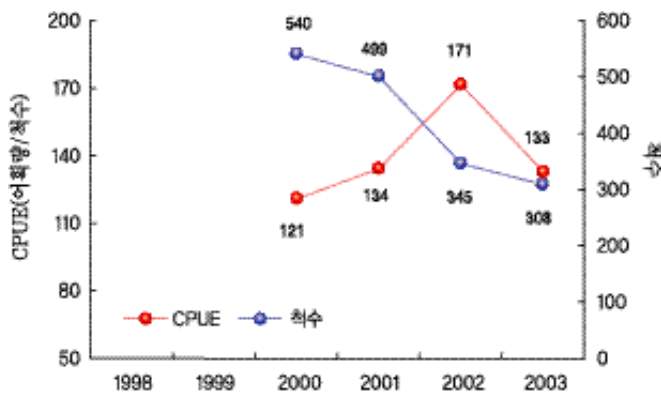
3-129.

3-129
 1998 118,960
 가 ,
 2003
 40,887 가 .



3-130.

2002
 3,667 , 2003
 3,298
 (CPUE) 2002 78kg
 , 2003 83kg
 가 .

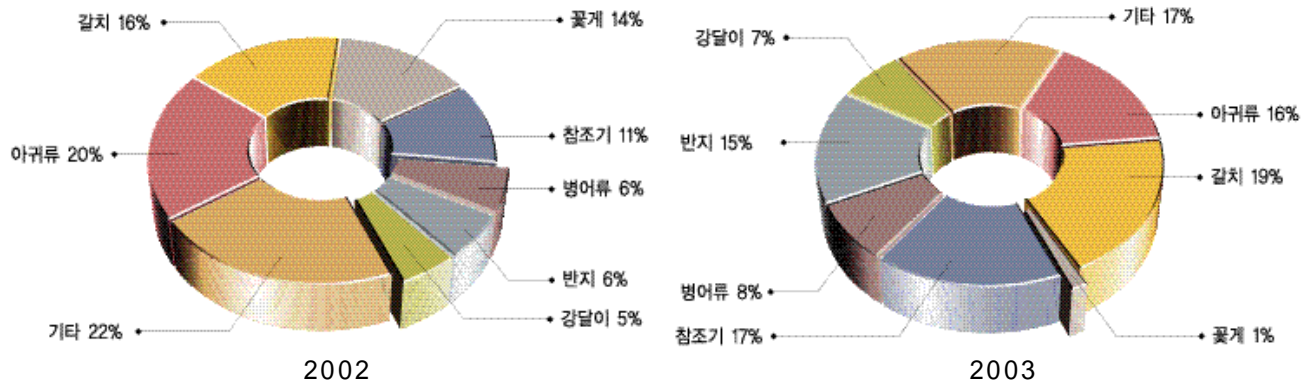


3-131.

3~5 9~12
 가 9~2

(CPUE)
 2000 540
 CPUE 2000 121 2002 171 가 , 2003 308
 2003 133

2)

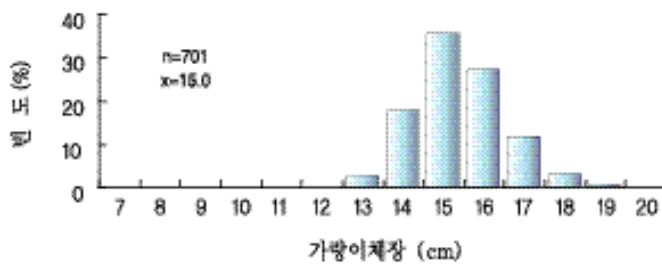


3-132.

2002 가 6%, 16%, 가 20%, 가 15%, , 2003 가 19%, 가 1%, , 16%, 가 1%, 14%, 가 17%, 11%, , 17%, 2002

3)

가)



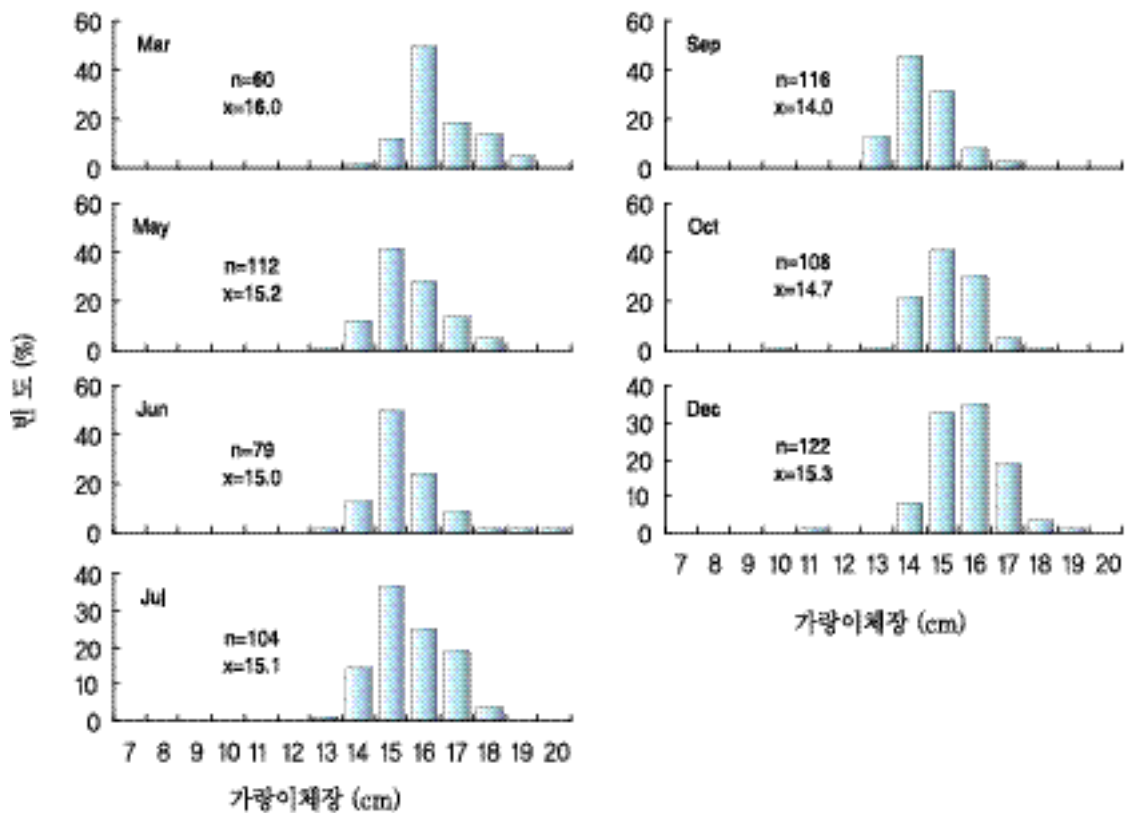
3-133.

5~12

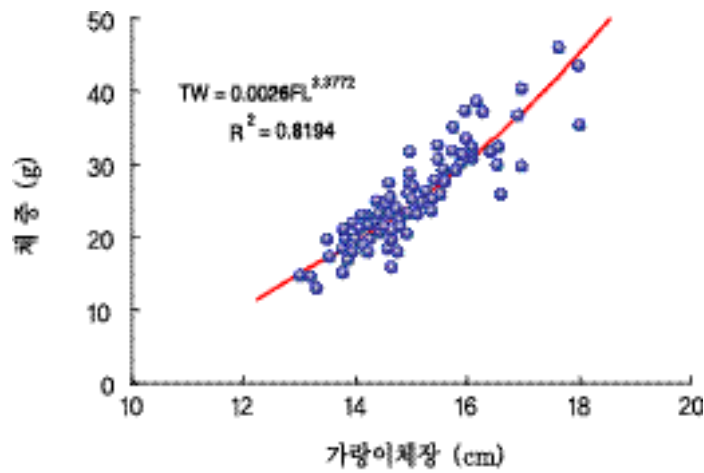
701

가 15.0cm(9.5~19.7cm), mode 14.1~15.0m 35.8%

, 3 가 16.0cm(13.3~18.0m), mode 15.1~16.0m
 50/0% . 5 15.2cm(12.8~18.0m), mode 14.1~15.0m
 42.0% . 6 15.0cm(12.7~19.0m) mode 14.1~15.0m 49.4%
 . 7 15.1cm(12.5~17.0m) 6 . 9
 14.0cm(12.2~16.0m), mode 13.1~14.0m 45.7% . 12
 15.3cm(10.4~18.0m), mode 15.1~16.0m 35.2%

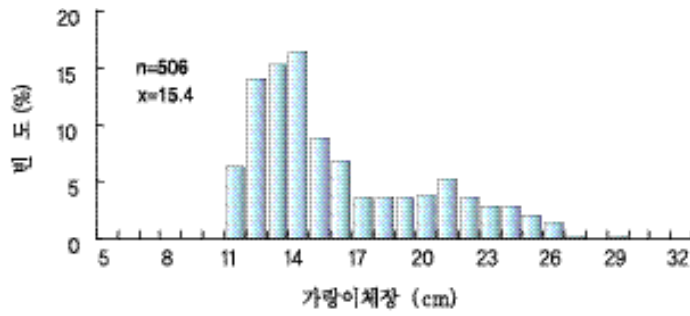


3-134.

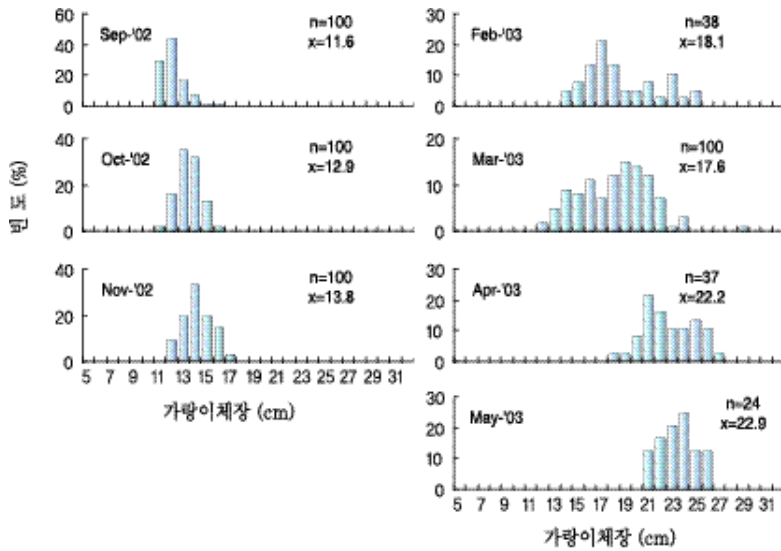


3-135.

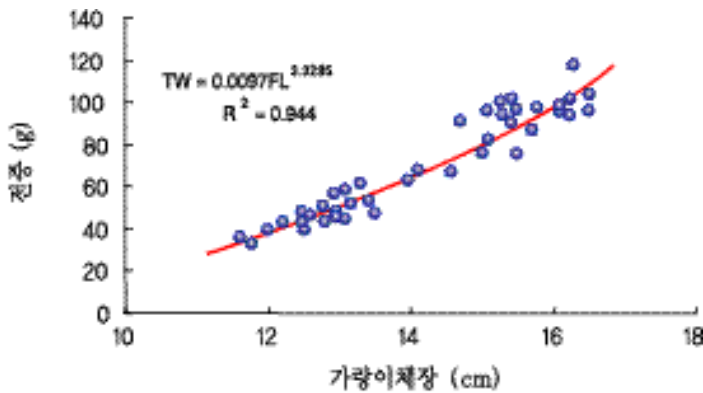
)



3-136.



3-137.



3-138.

2002 9 ~ 2003 5

506

가

15.4cm(10.2~28.1cm)

13.1~14.0cm 가

16.4%

, 2002 9

가 11.6cm

(10.2~15.5cm) 가

, 10 가

12.9cm(10.6~15.5cm)

11 가 13.8

cm(11.2~16.5cm)

2003 2 18.1cm, 3

17.6cm, 4 22.2cm 5

22.9cm 가

45

$$TW = 0.0097FL^{3.3285}$$

($R^2 = 0.944$)(TW: , FL:가

)

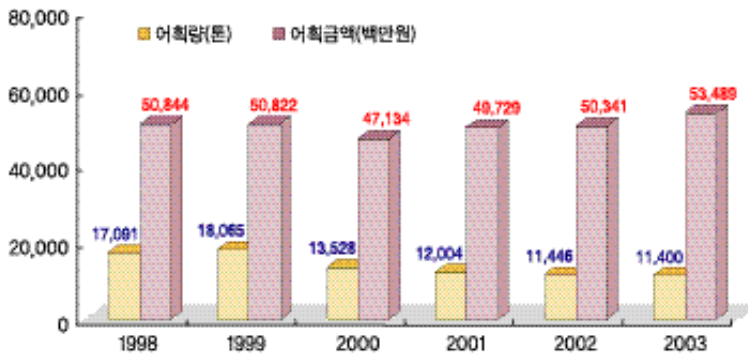
4)

, 1980 50,000

1994 24,000 ,

2003 3,298

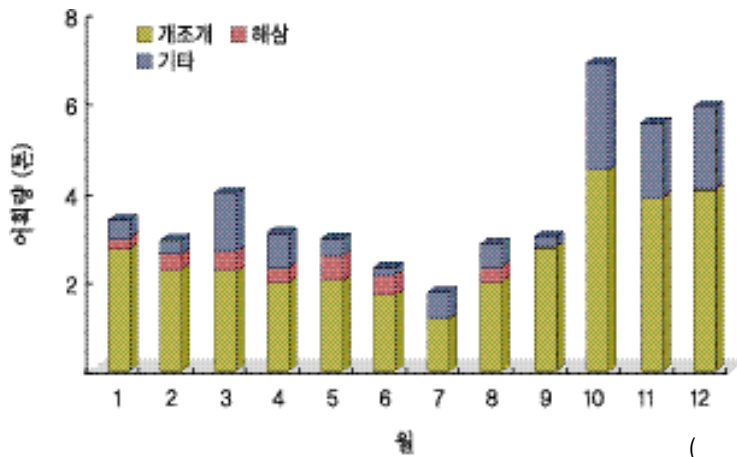
1)



3-139
 . 1999 18,065 가
 , 2003
 11,400 가 .

()

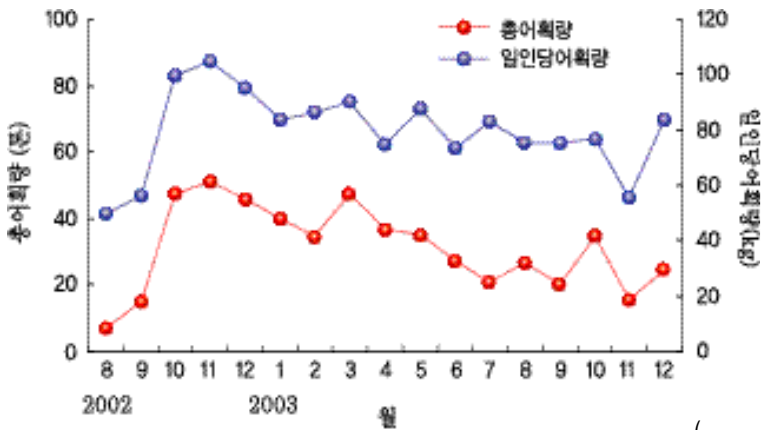
3-139.



2003
 10 7
 가
 , 7
 가
 가

()

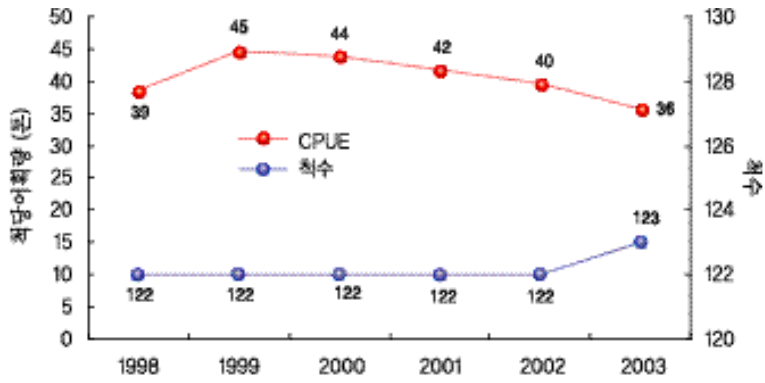
3-140.



(CPUE)
)
 2002 2003
 , 2002 11 가

()

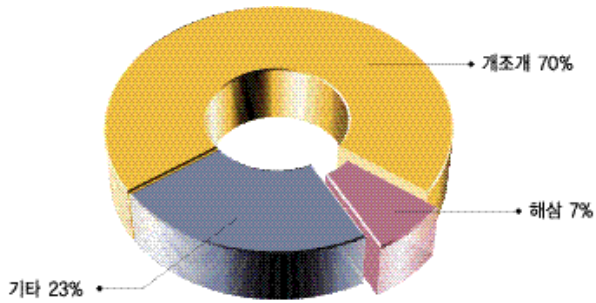
3-141.



CPUE
 1999
 77 가 , 2003
 48 가
 ,
 1998 2002
 236
 , 2003 1 가 237

3-142.

2)



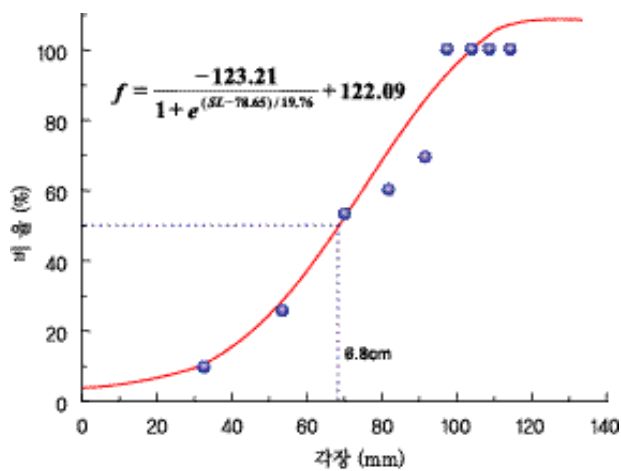
TAC

가 70%
 , 7%

3-143.

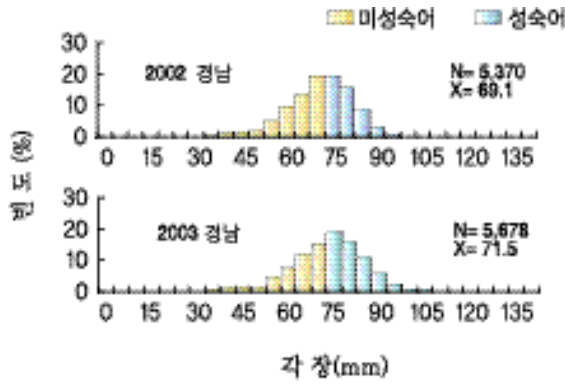
3)

가)



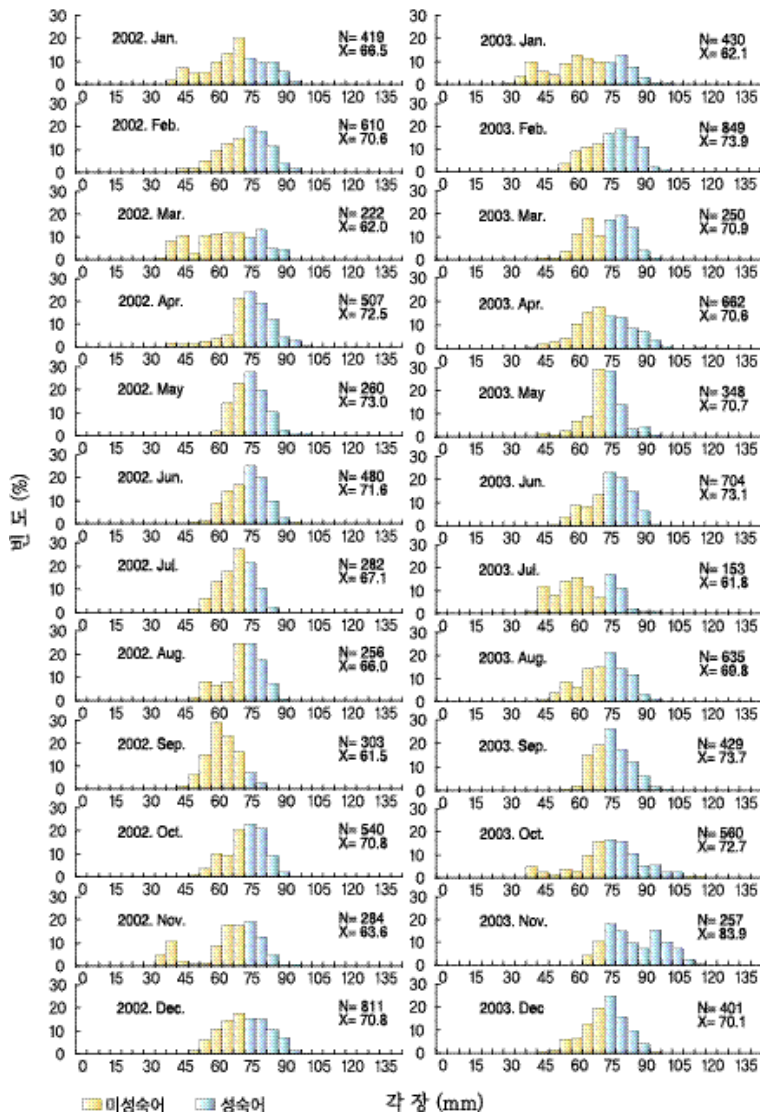
5~10
 , 6~7
 50%
 (Shell Length) 6.8cm
 , 5

3-144.



3-145.

2002 () 6.9cm (5,370) , 2003 7.1cm (5,678) . 2003 (6.8cm) 44.8% , 2004 42.3% . 2002 1~3

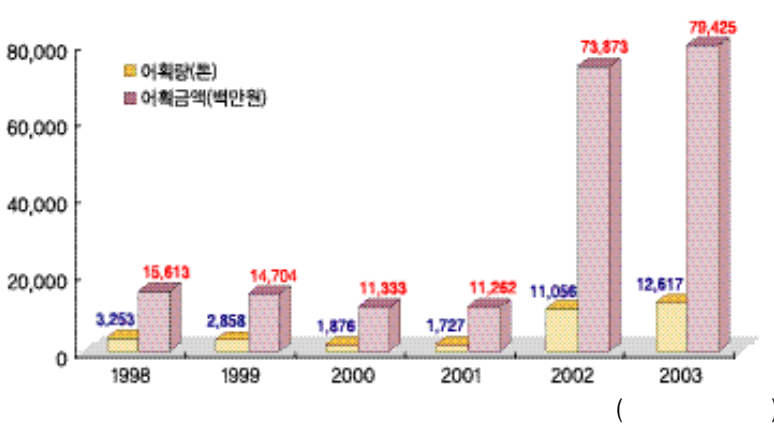


3-146.

4)

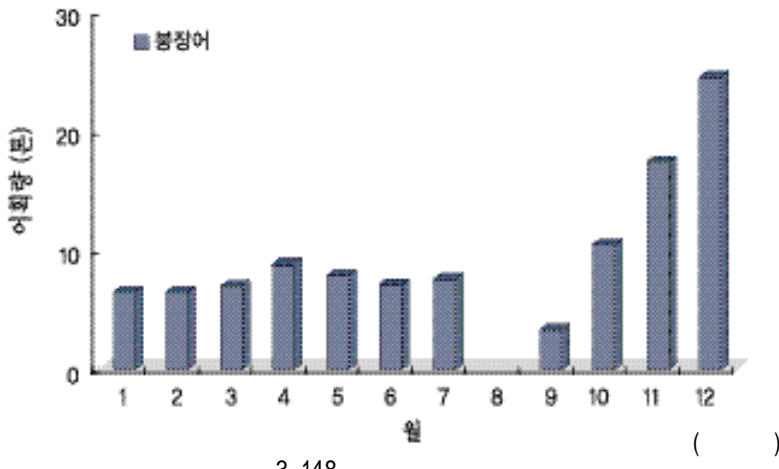
(CPUE)

1)



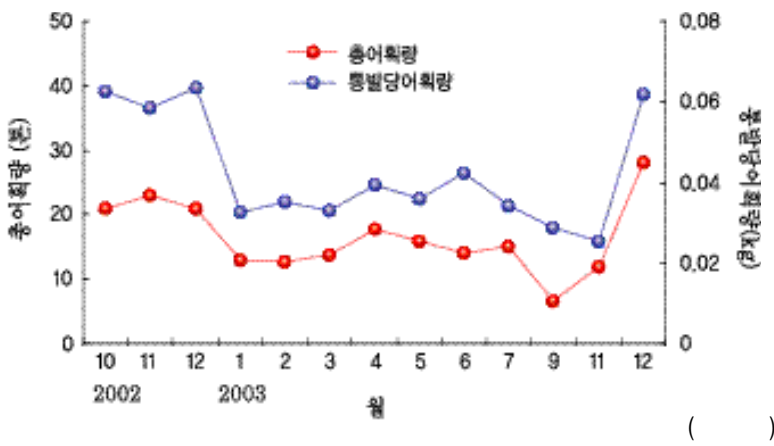
1998
3,253 , 1999 2,858 , 2000
1,876 , 2001 1,727
, 2002
11,056 , 2003 12,617
가 .

3-147.



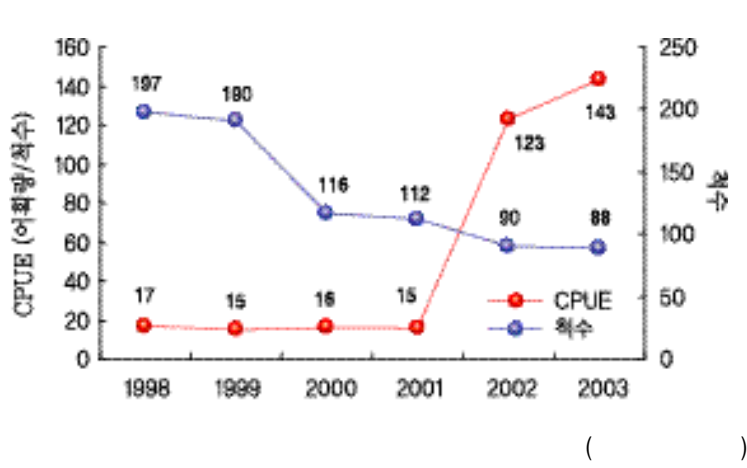
2003
12 27
가 , 8
가

3-148.



(CPUE)
. 2003 2002
가 , 2002 12
가 2003 12
가 .

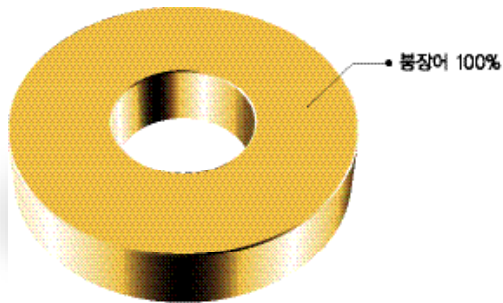
3-149.



CPUE
 2003 143 가
 , 1998 2001
 1998
 197 2003 88

3-150.

2)

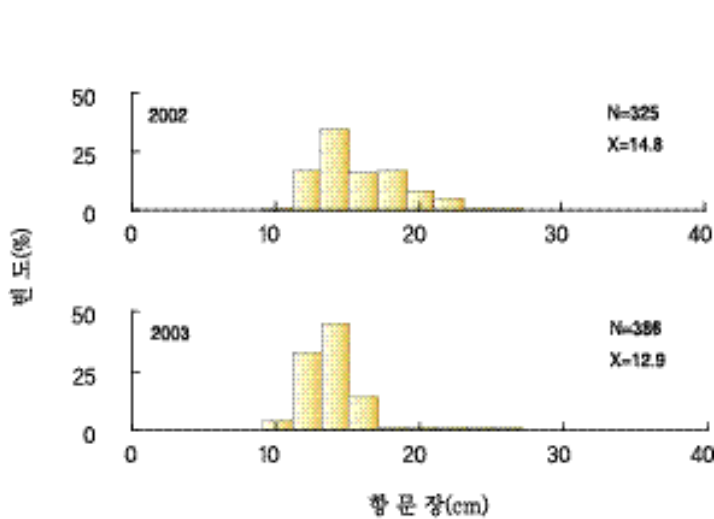


가 100%

3-151.

3)

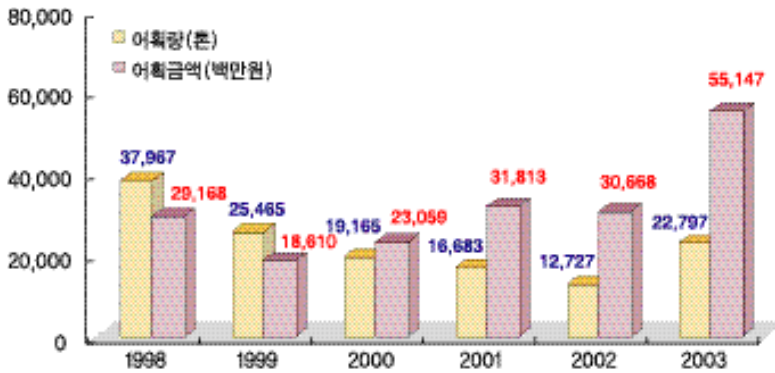
가)



4~6
 , 50%
 (Anal Length) 50.0cm
 3~4
 2002
 () 14.8cm (
 325) , 2003
 12.9cm (386)
 . 2002 2003

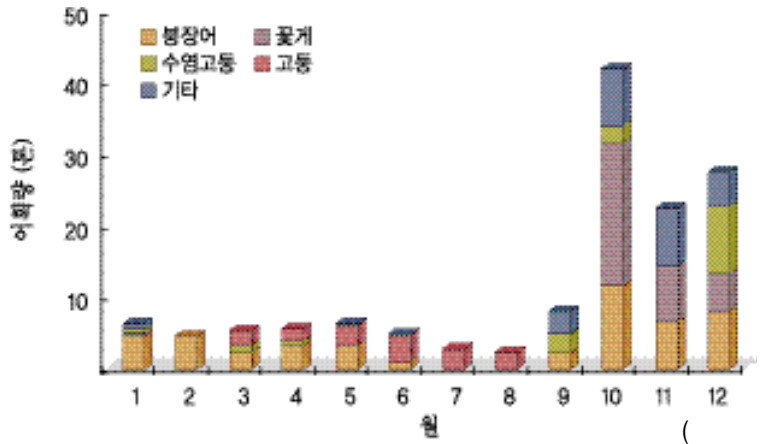
3-152.

1)



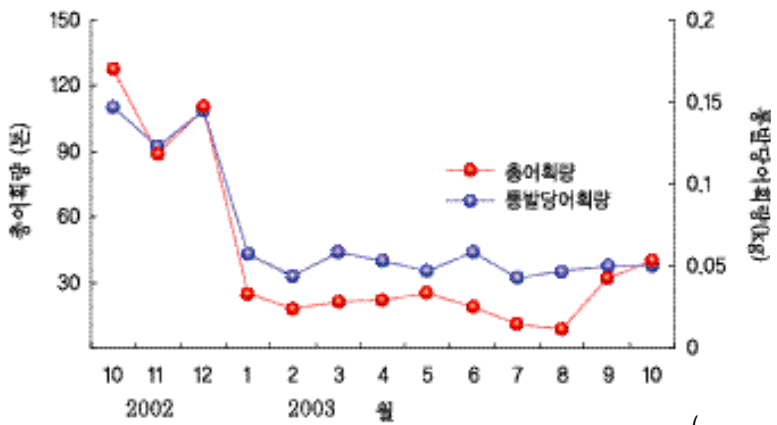
1998
37,967 , 1999 25,465 ,
2000 19,165 , 2001
16,683 , 2002 12,727
, 2003
22,797 가

3-153.



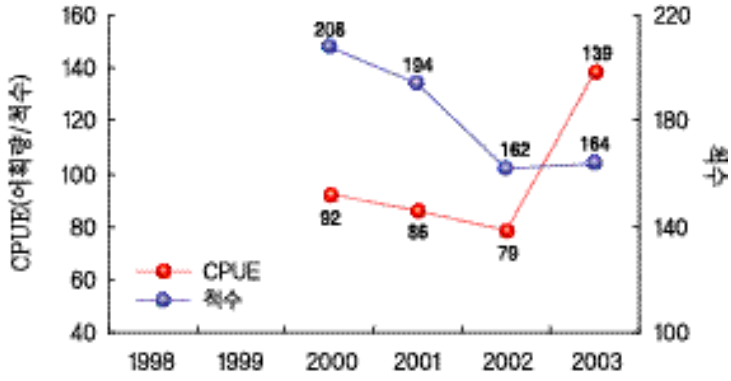
2003
10 45
가 , 7~8 5
가 가

3-154.



(CPUE)
. 2003 2002
, 2002 10
12 가

3-155.

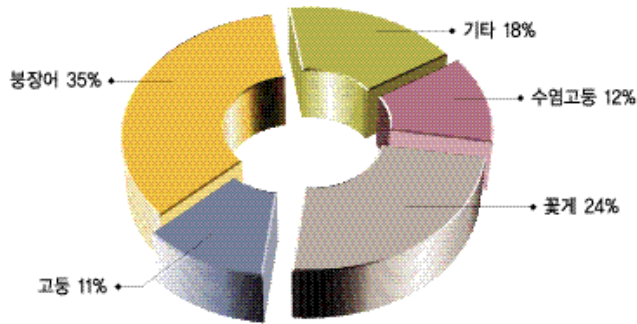


3-156.

(CPUE)

Year	CPUE
2000	82
2001	86
2002	79
2003	139

2)



3-157.

Category	Percentage
붕장어	35%
기타	18%
수염고둥	12%
꽃게	24%
고동	11%

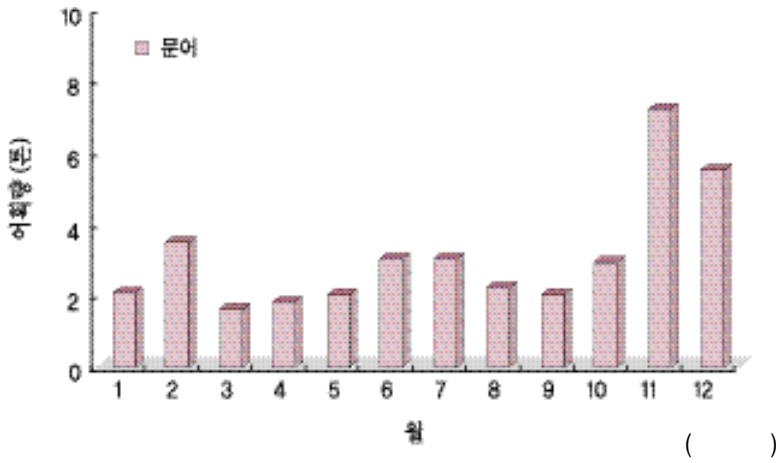
3)

4)

가

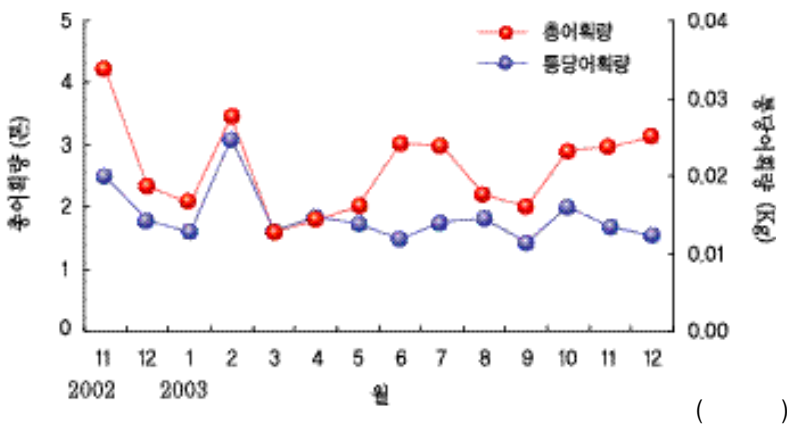
CPUE 2002 , 2003

1)



3-158.

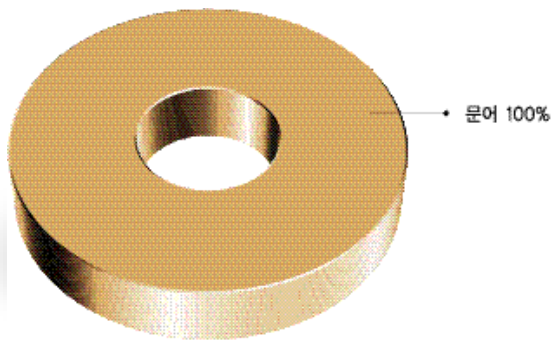
가 11 7.2
 , 3 1.6
 가



3-159.

(CPUE)
 0.024kg 가 2
 0.01~0.02kg

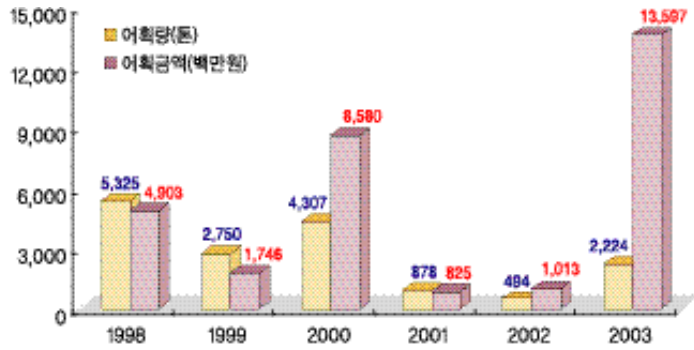
2)



3-160.

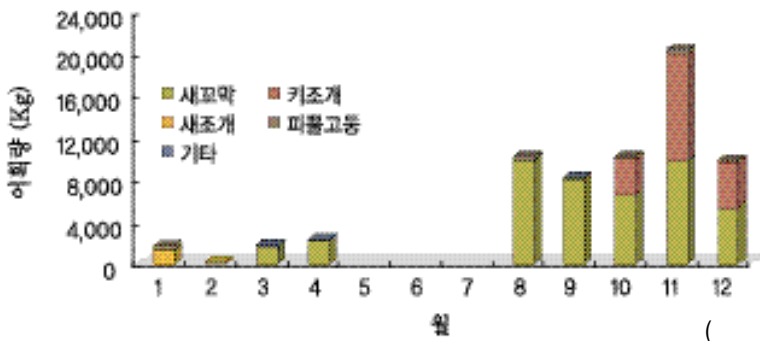
가 100%

1) (CPUE)



3-161
 1998 5,325 ,
 1999 2,750 , 2000 4,307
 , 2001 878 , 2002 494
 , 2003
 2,224

3-161.

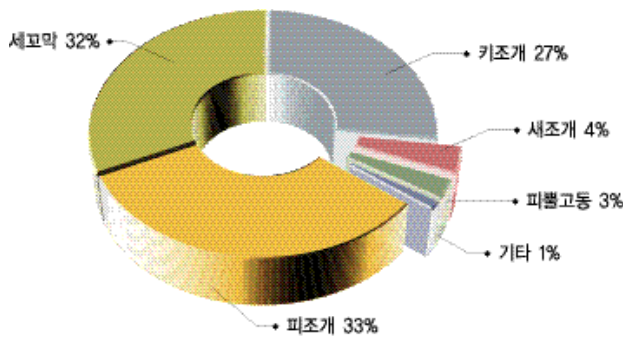


11 20.3
 가 , 2 70kg
 가
 8~12 8.0

3-162.

1~2
 , 1 2 가 79%, 100% . 10~12
 가 33~50% , 1 20%

2)

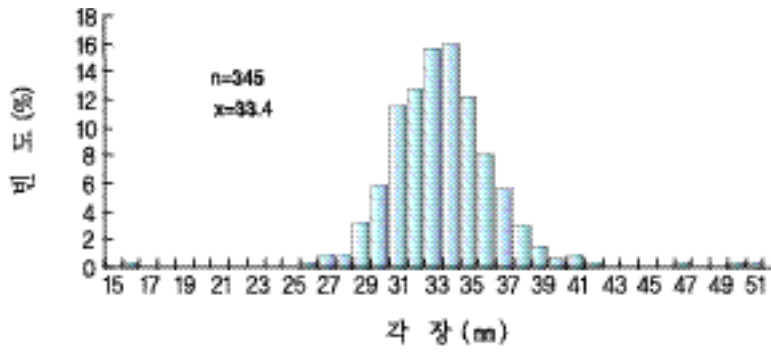


가 가
 가 가
 가 33% ,
 32%, 27%,
 4%, 3%

3-163.

3)

가)



11
 345
 33.4mm
 (16.0 ~ 50.5mm)
 33.1~34.0mm 가
 15.9% 가

3-164.

4)

, 1998

. 2003

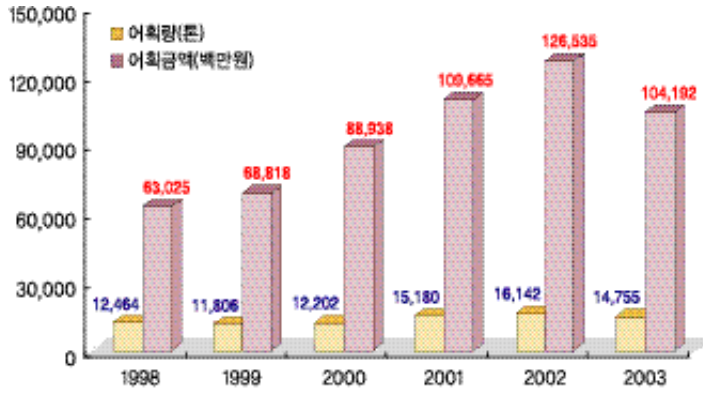
가

1994~1998 355~3,277

2000 2001 10 0

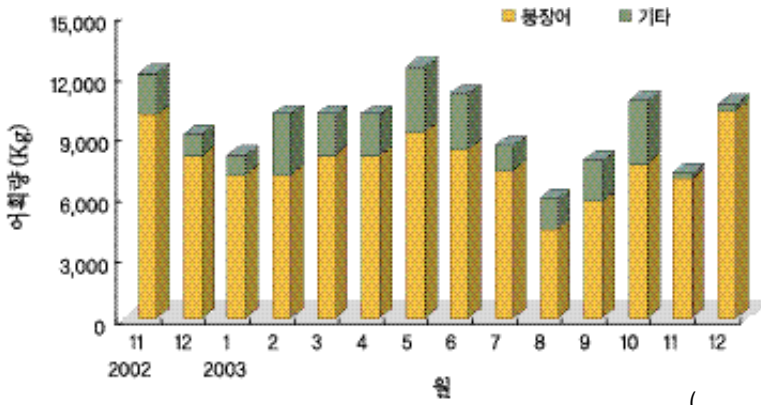
가 1,576

1)



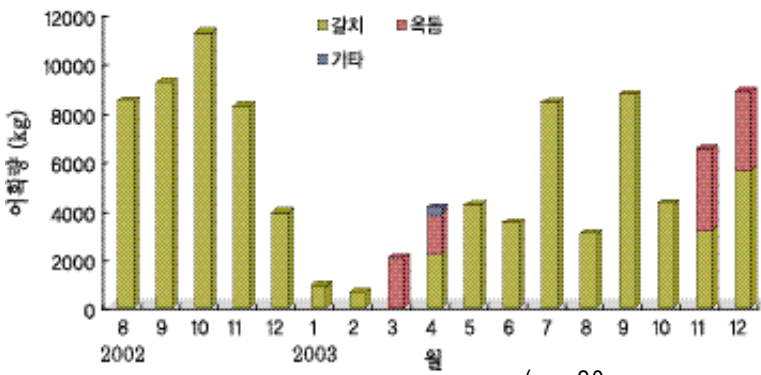
2002 16,142
 가 , 1999
 11,806 가
 , 2003
 14,755

3-165.



2003 5 12,360kg
 가 , 2003 8
 5,820kg 가

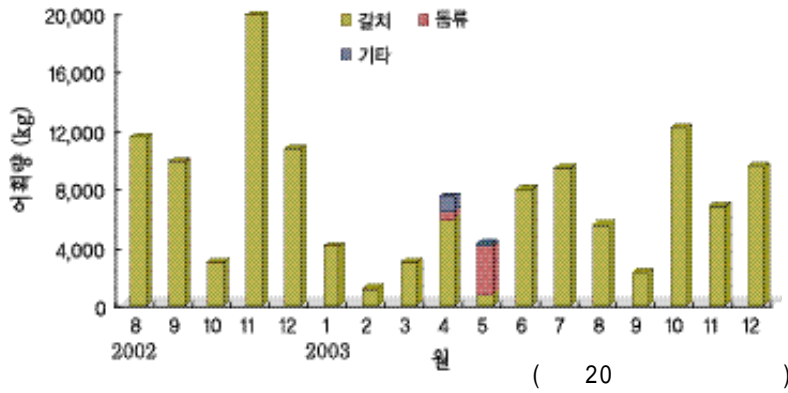
3-166.



20
 2002 10 11,210kg 가
 , 2003 2 600kg
 가

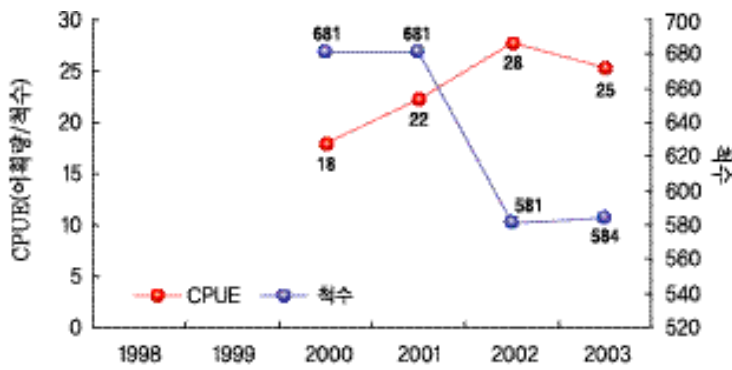
3-167.

(, 20)



2002 11 19,764kg 가
 , 2003 2
 1,078kg 가 .

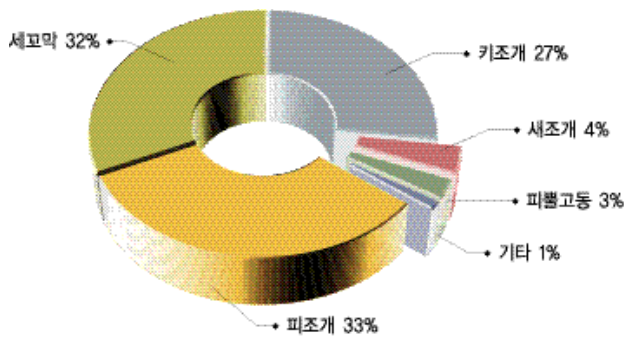
3-168. (, 20)



(CPUE)
 2000
 681 2003 584
 . CPUE 2000
 18 2001 22 , 2002
 28 , 2003 25
) 가 .

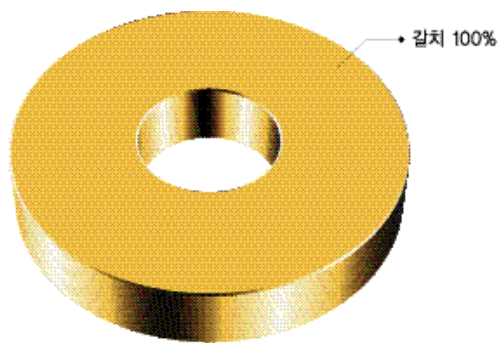
3-169.

2)

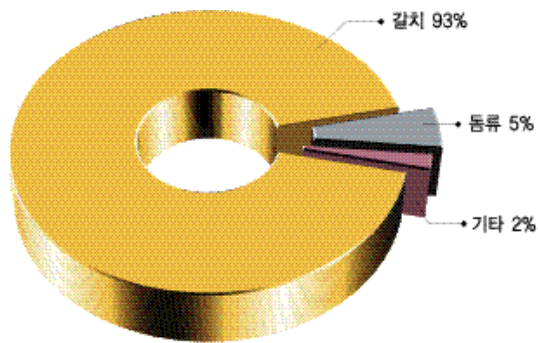


가 81% ,
 EEZ
 94, 95 362

3-170. ()



2002 3-171.

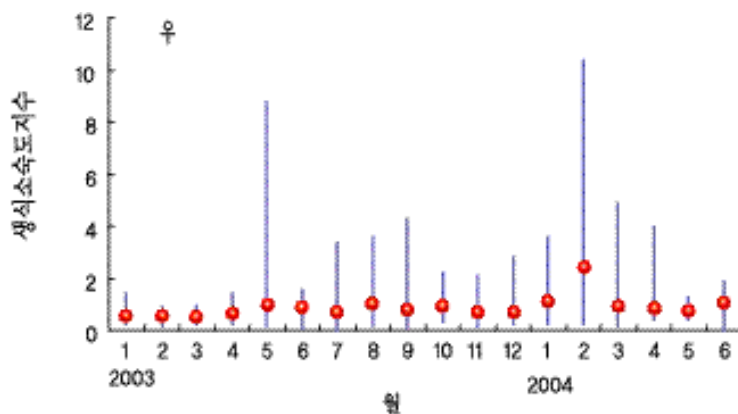


() 2003

2003 가 81%, 19%, 가 0.5% 2002 .

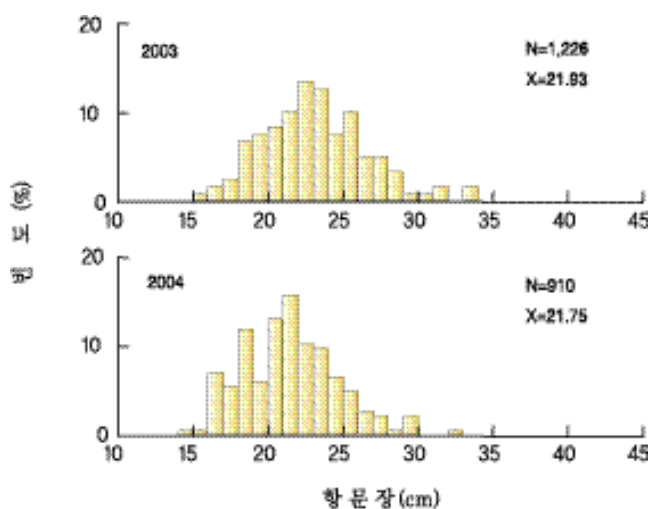
3)

가)



3-172.

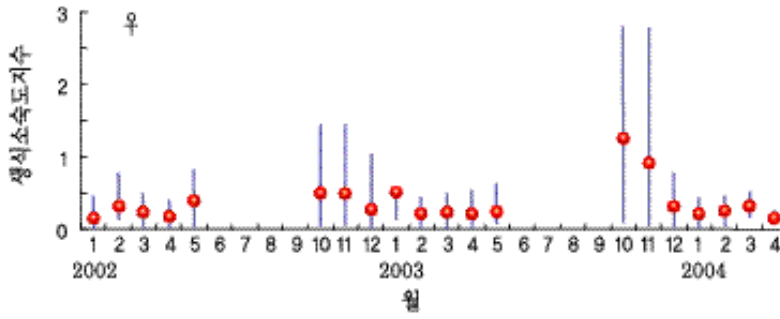
가 , 가 , 95.1%, 4.9% , 가 2003 5 2004 2 8.81, 10.40 가 1 2~5 가



3-173.

2003 () 21.93cm (1,226) , 2004 (1~6) 21.75cm (9,100) .

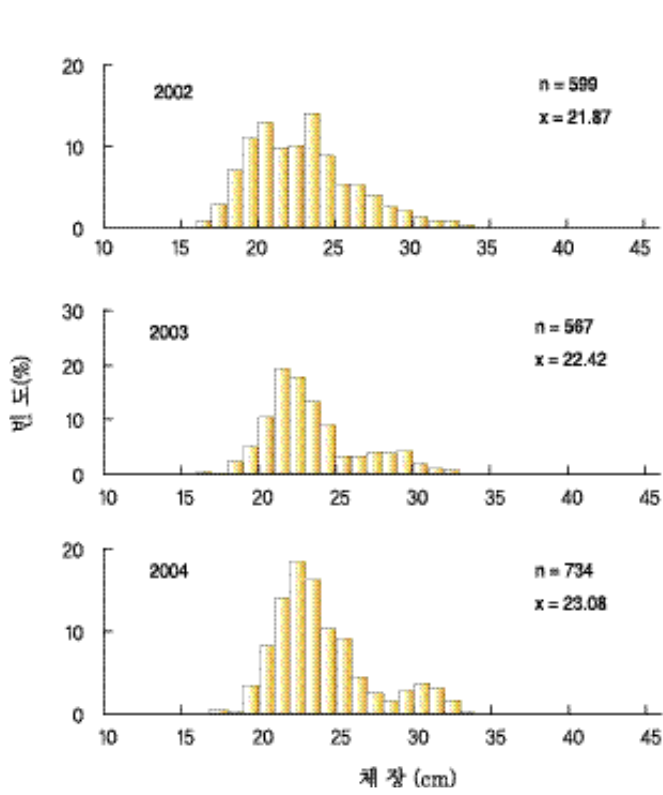
)



9~11

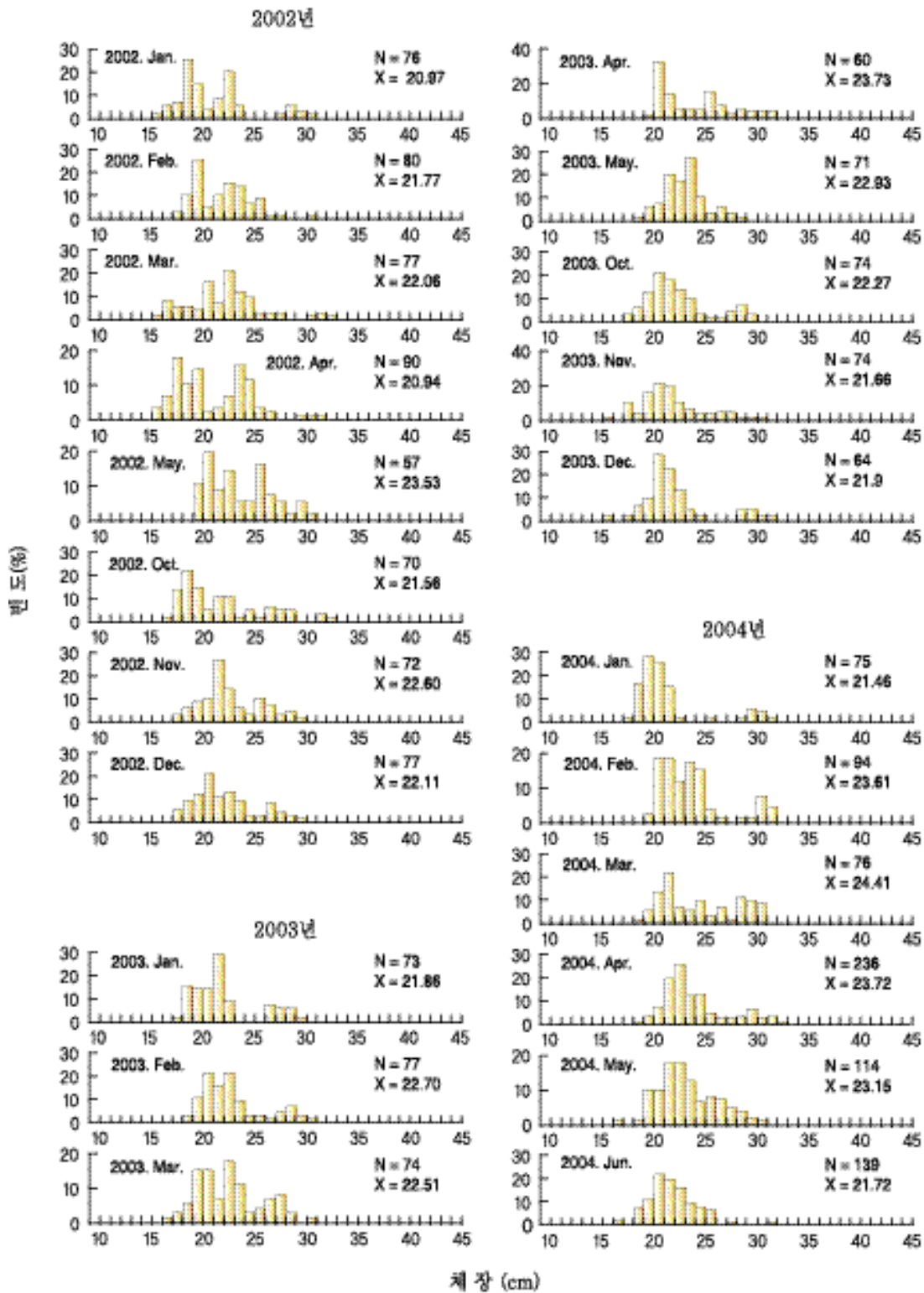
10~11

3-174.



2002(1~5 , 10~12) (BL) 21.87 cm (599) ,
 2003 (1~5 , 10~12) 22.42 cm (567)
 2004 (1~6) 23.08 cm (734)

3-175.



3-176.

4)

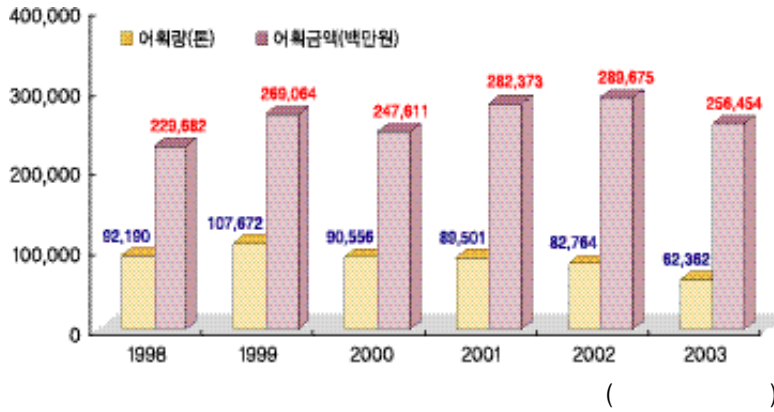
EEZ 94, 95 (CPUE) 가 362

가

2.

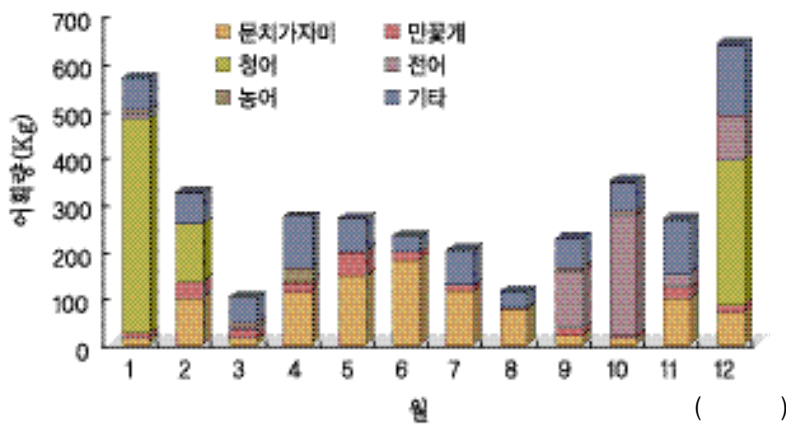
가.

1)



3-177.

3-177. 1999 107,672
가
, 2003 62,362
가



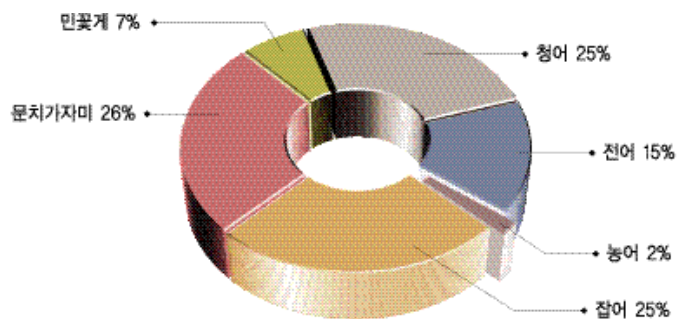
3-178.

CPUE

가

12 634kg 가 3 95kg 가 . 12 2 가 가

2)



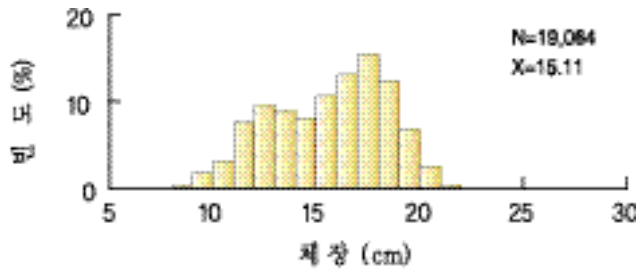
3-179.

가 26%, 25%,
15%, 7%

3)

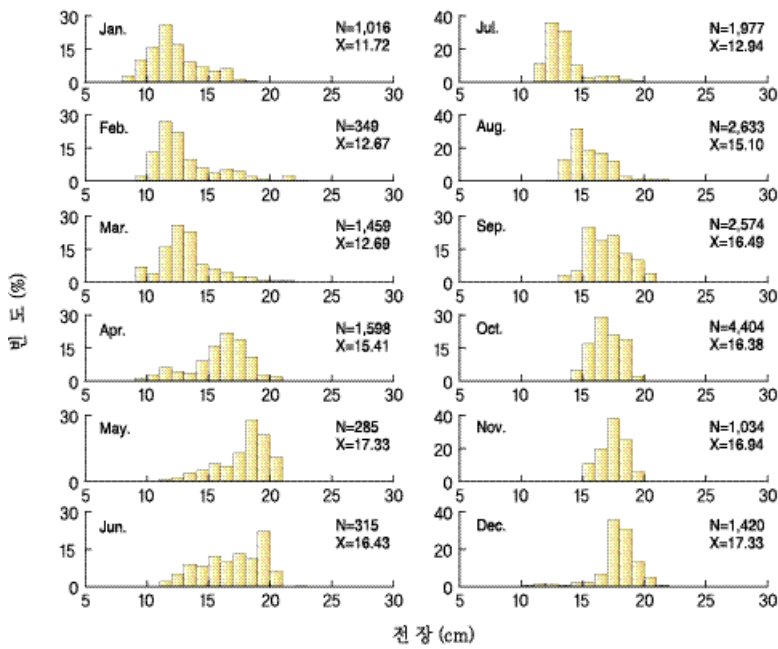
가

가) 가



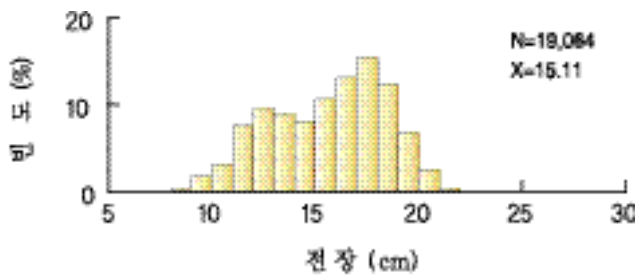
가 ()
13.38cm(3,539) ,

3-180. 가



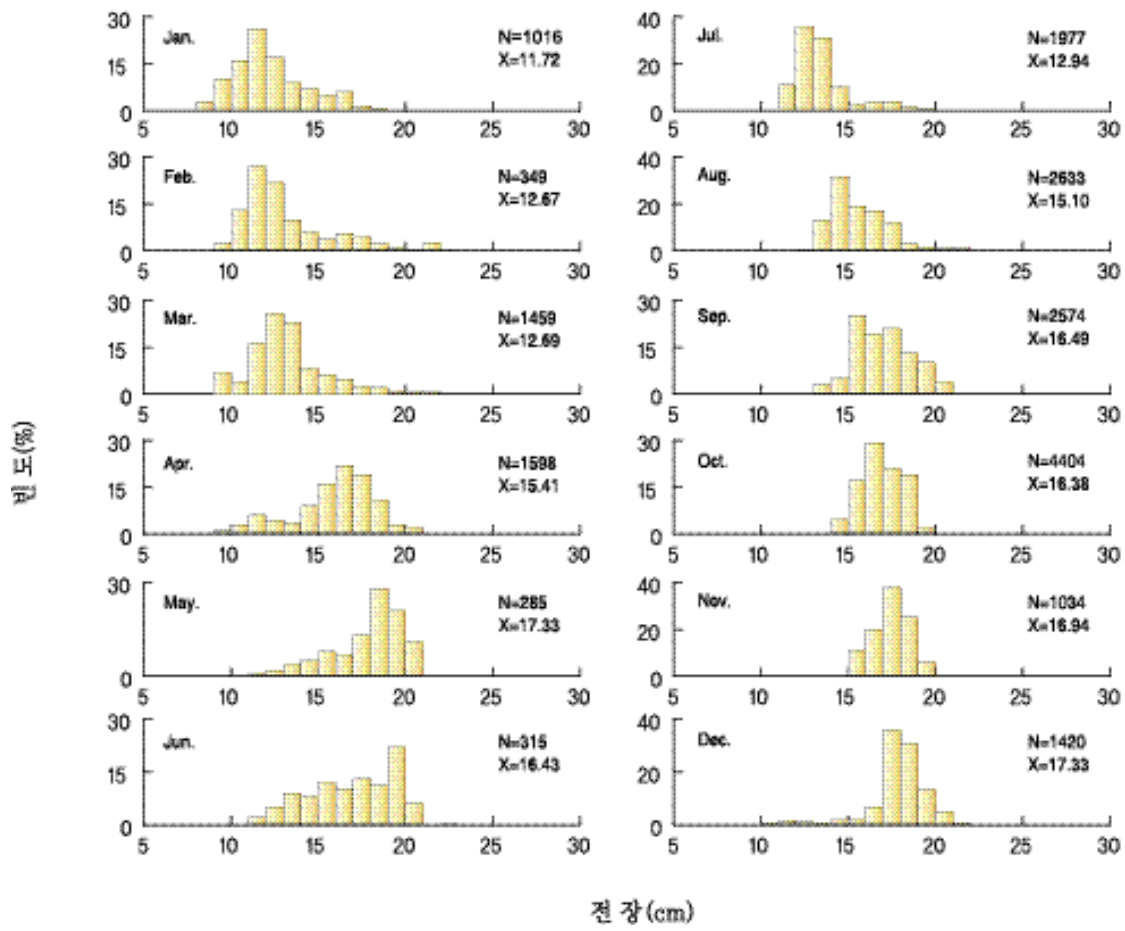
3-181. 가

)



4~8
, 6~7
(
) 15.11cm(
19,064) , 1~3 7
11.7~12.9cm
,
15.1~17.3cm

3-182.

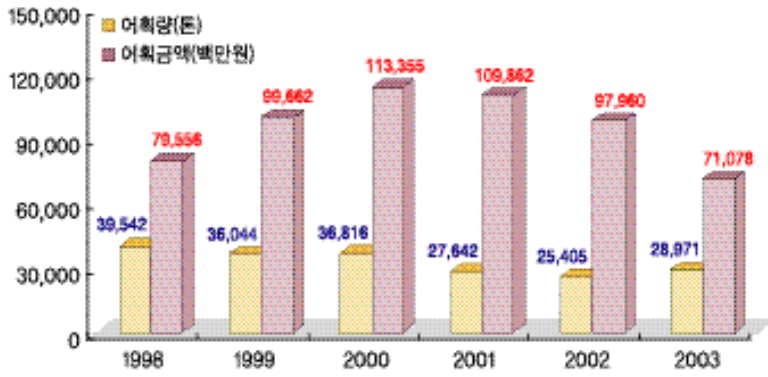


3-183.

4)

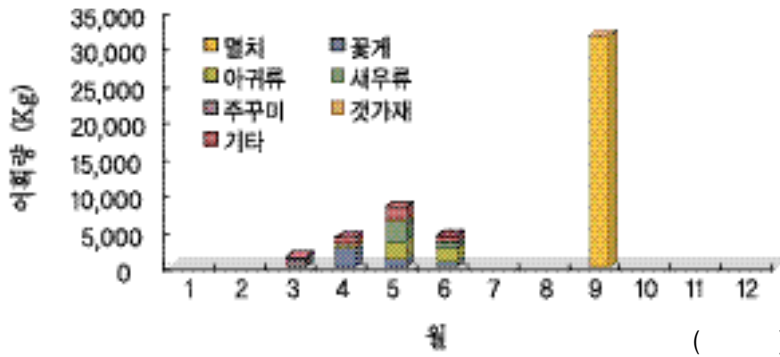
가 (CPUE) 가

1) (CPUE)



3-184.

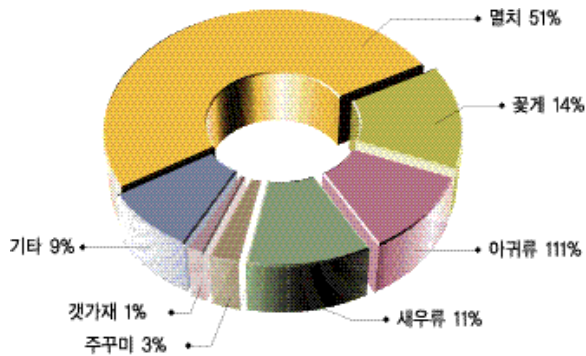
184
1998 39,542
2002 25,405
2003 28,971



3-185.

가 9 31.6
가 5 8.0
가 3 1.2
가 1~2 7~8
10~12

2)

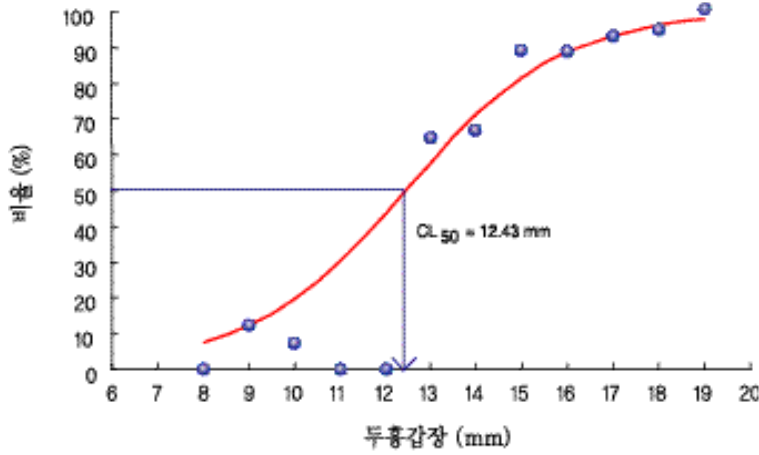


3-186.

가가
51% 가
14%, 11%, 11%,
가 3%

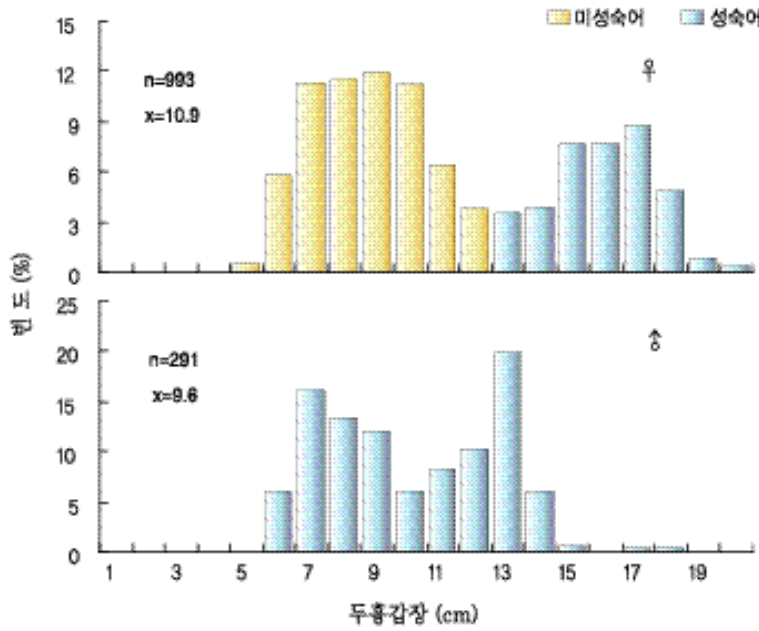
3)

가)



50%
12.43mm

3-187.



1~12

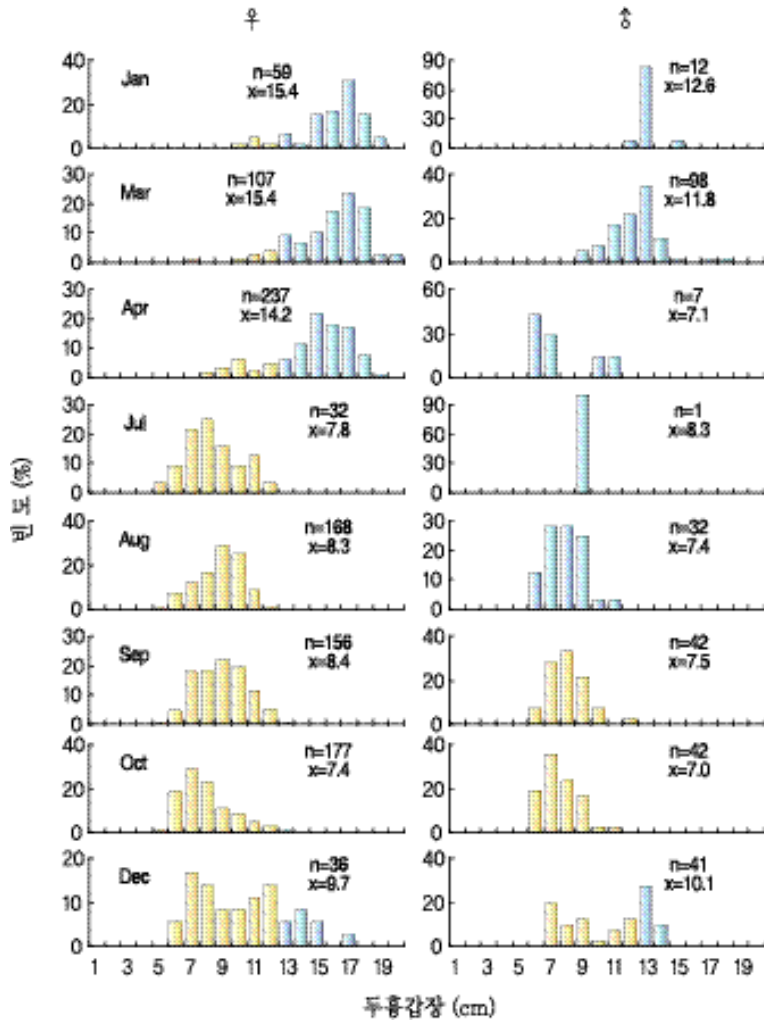
993

291

10.9mm(4.4~19.8 mm), 8.1~9.0mm
가 가 12.0%

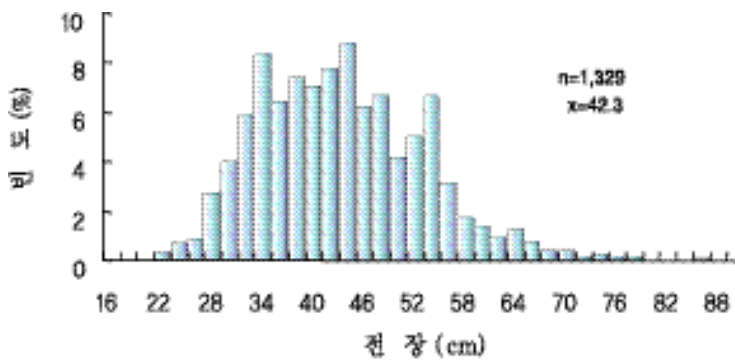
62.5%
9.6 mm (5.1~17.2 mm),
12.1~13.1mm 가 19.9%
가

3-188.



3-189.

1 15.4mm
 (9.6~18.0mm) ,
 8.5% . 3
 15.4mm(6.2~19.0mm) ,
 8.4% . 4
 14.2mm ,
 17.7% . 7 8
 7.8
 mm, 8.3mm ,
 . 9
 8.4mm(4.7~12.5mm)
 , 12 9.7mm(5.3~16.0mm)
 3
 11.8mm
 (8.0~17.0mm) , 12.1~13.0mm
 가 34.7% 가
 . 8
 7.4mm(5.4~10.1mm)
 . 12
 10.1mm(6.1~13.4
 mm) , 12.1~13.0mm
 가 26.8% 가

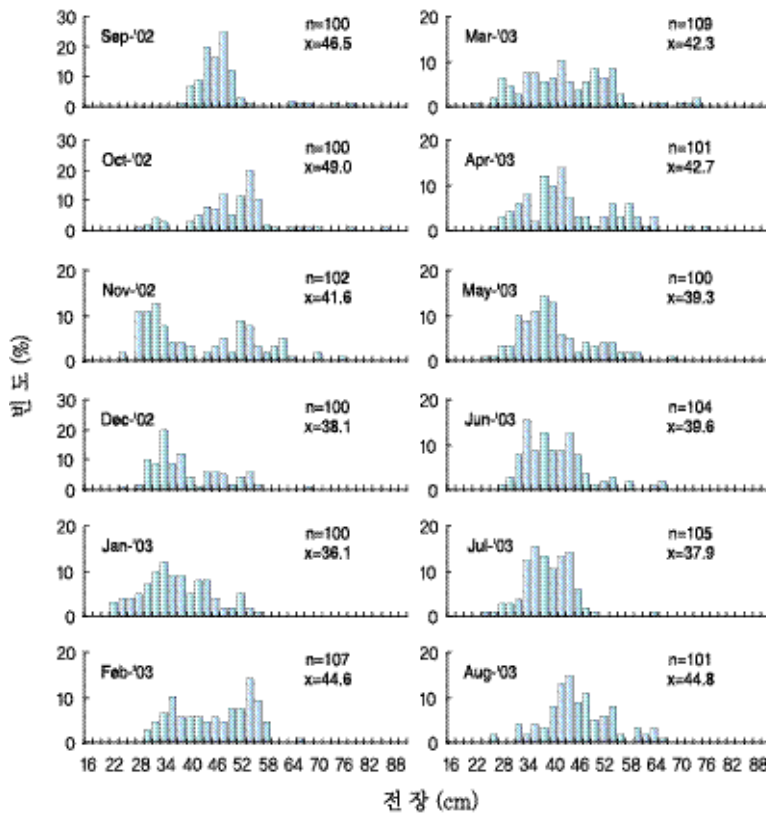


3-190.

2002 9 ~2003 8

1,329
 42.3cm(20.6~85.0m) ,
 42.1~44.0m 가
 8.8% 가

2002 9
 46.5cm .



3-191.

(23.2~67.4m) 36.1~38.0m 가 14.0% 가 . 6 39.6cm
 (27.8~65.0m) , mode 32.1~34.0m 15.4% . 7 37.9m(24.0~63.3
 cm), mode가 42.1~44.0m 14.3% . 8 44.8m(24.2~64.0m) , 42.1~44.0
 cm 가 14.9% 가 .

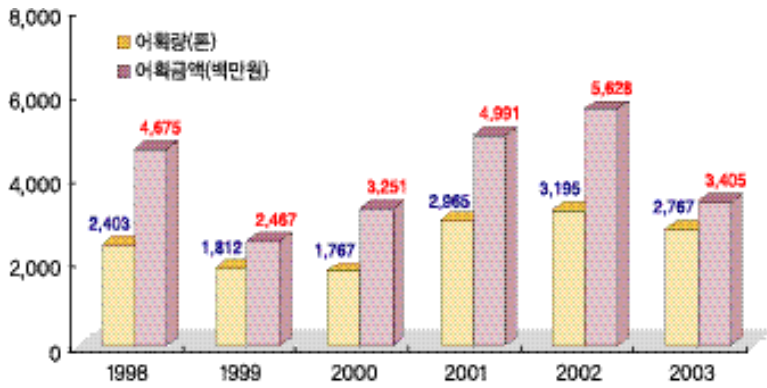
4)

가 , 1994~1997
 9,710~13,433 , 1998 29,173 가 . 2001
 12,7401 2003 7,550

10 49.0cm
 (28.0~85.0m) 가
 ,
 52.1~54.0m 가
 20.0% 가 . 11
 41.6m(23.5~75.0
 cm) , 12
 38.1m(23.9~66.0m), 2003 1
 36.1cm
 (20.6~55.0m) 가
 , 2
 44.6cm(29.1~64.6cm) ,
 34.1~36.0m 가 10.3%
 가 . 3
 42.3cm(21.2~73.2cm)
 mode 40.1~42.0m 10.1%
 . 4 42.7cm
 (25.4~74.4cm) , mode
 40.1~42.0m 13.9% . 5
 39.3cm

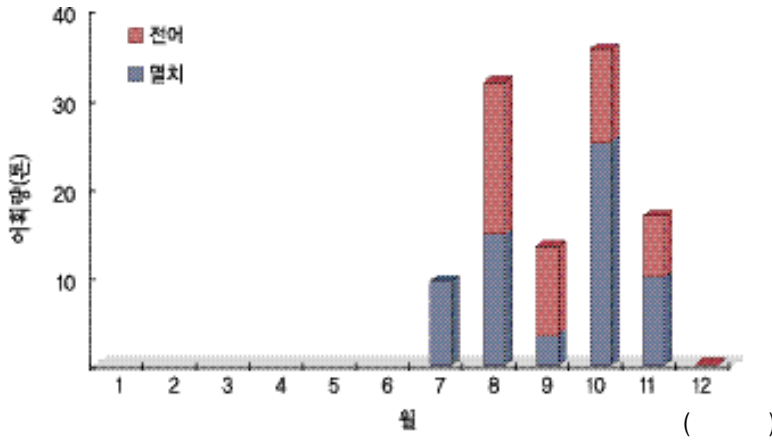
()

1)



()
 3-192 . 2002
 3,195 가
 , 2000 1,767
 가 ,

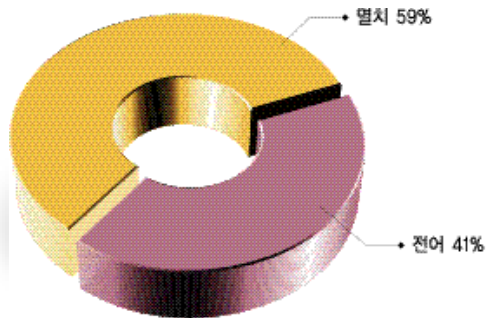
3-192.



()
 35 가 10
 가 . 1 6 , 7

3-193.

2)

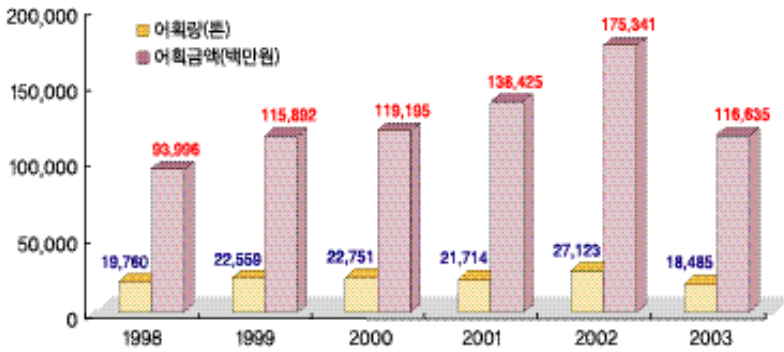


3-194.

3)

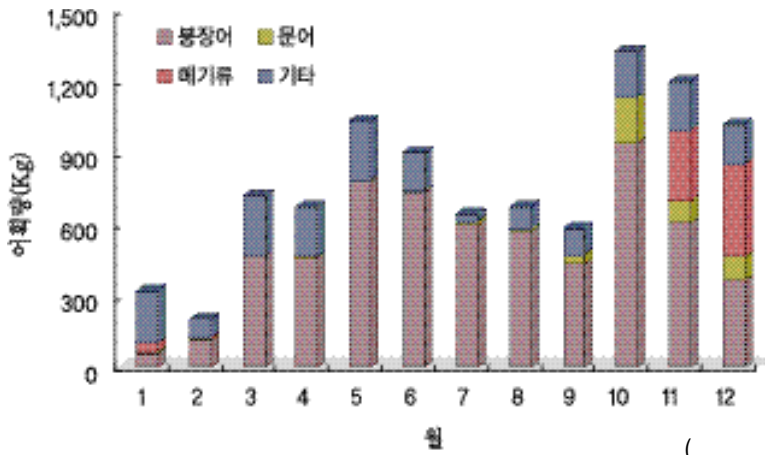
4)

1)



195 . 2002 27,123 3-
가
, 2003 18,485 가

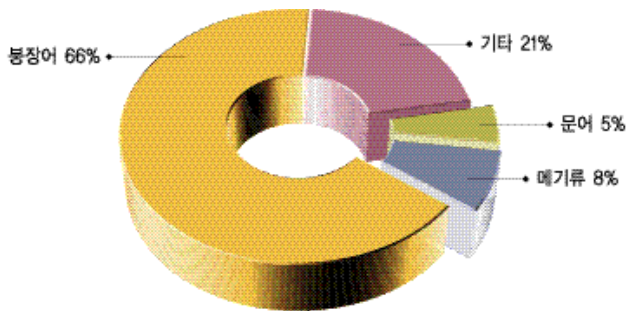
3-195.



2003
10
1.3 가 2
0.2 가
가

3-196.

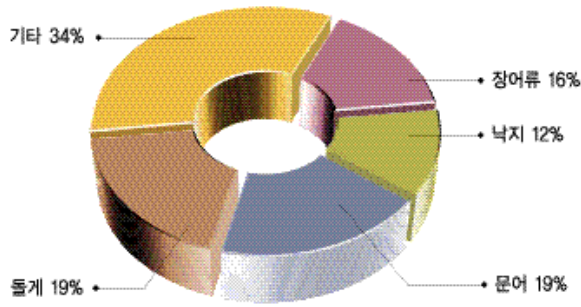
2)



66% , 가가
5% , 8%,

3-197.

()

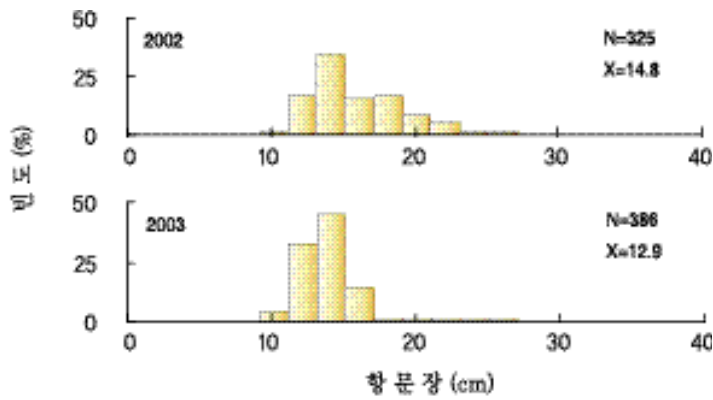


3-198. ()

가 19% 가 ,
16%, 12%

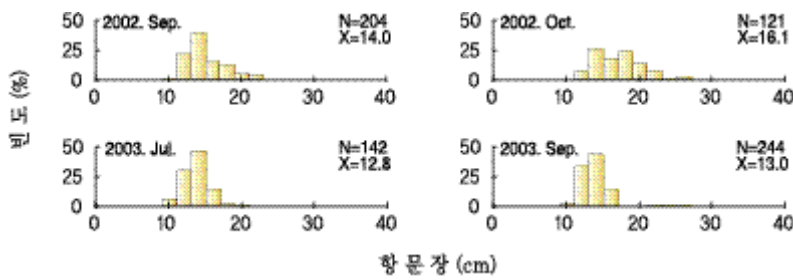
3)

가)



3-199.

4~6
50%
(Anal Length) 50.0cm
3~4
2002
() 14.8cm (
325) , 2003
12.9cm (386)
2002 2003



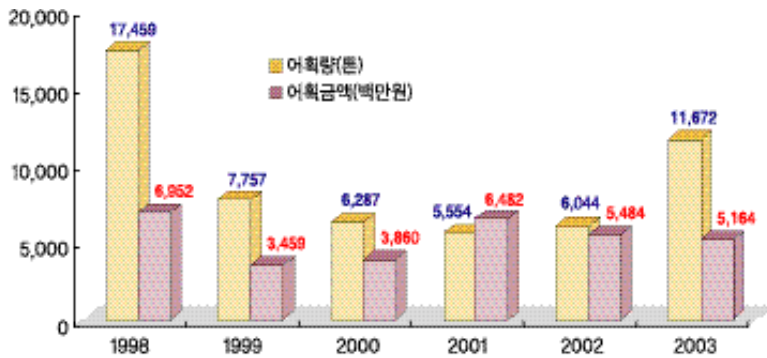
3-200.

4)

(CPUE) 가 가

, 가

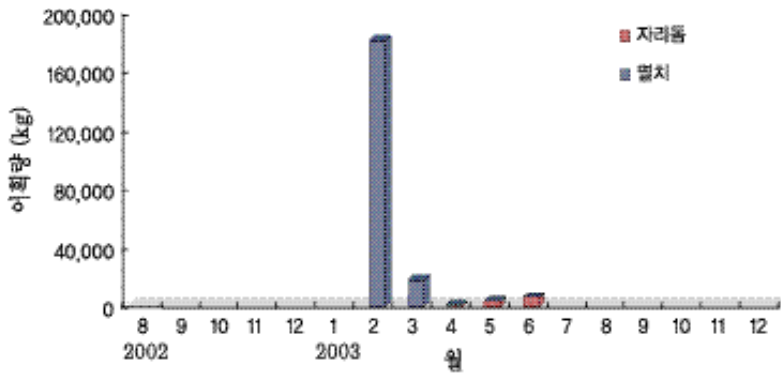
1)



201 . 3-
17,459 가 1998
가 , 2001 5,554

()

3-201.

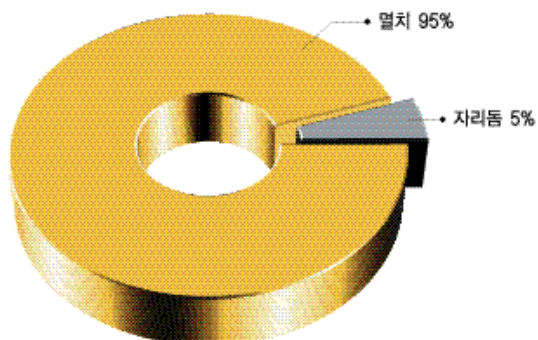


2003 2 180,580kg
가 , 2003 4
725kg 가

()

3-202.

2)

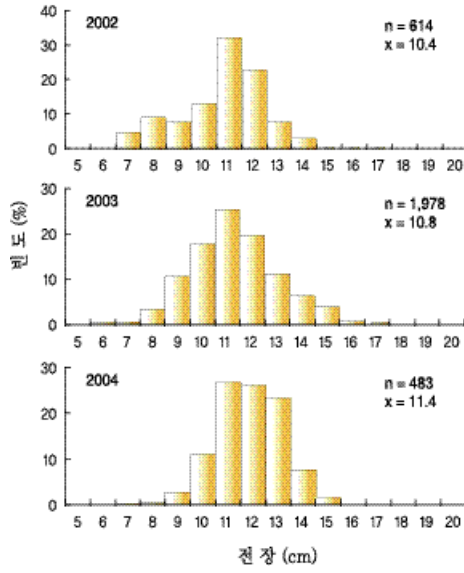


2003
95%, 5% 가

2003

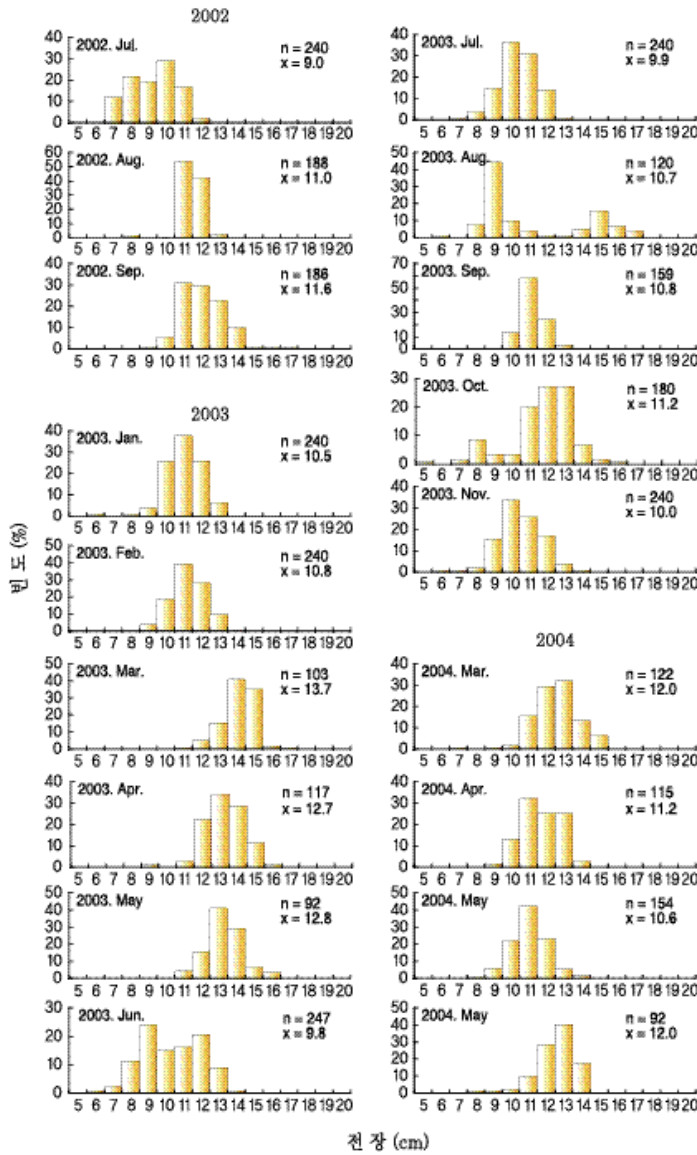
3-203.

3)



2002 (7-9)
 (TL) 10.4 cm (614) , 2003 (1-11)
 10.8 cm(1978) 2004 (3-6)
 11.4 cm(483)

3-204.



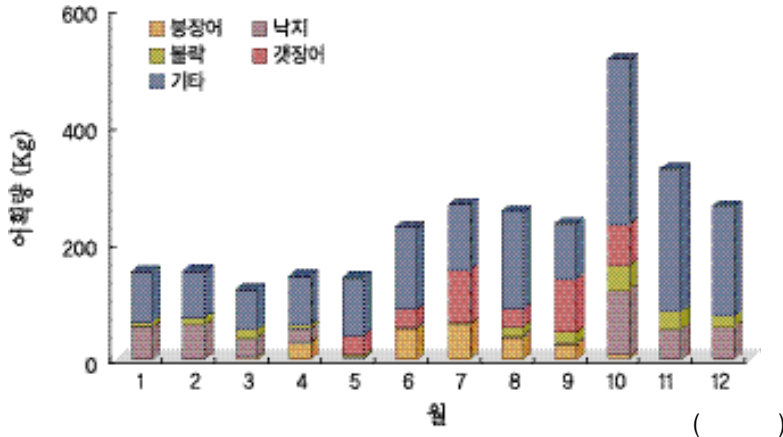
3-205.

1)

2003 45,404

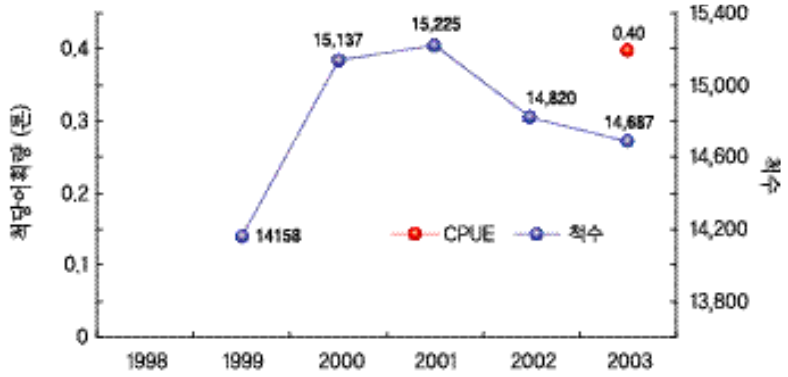
43,967

, CPUE



가 10 0.5
, 1 5

3-206.

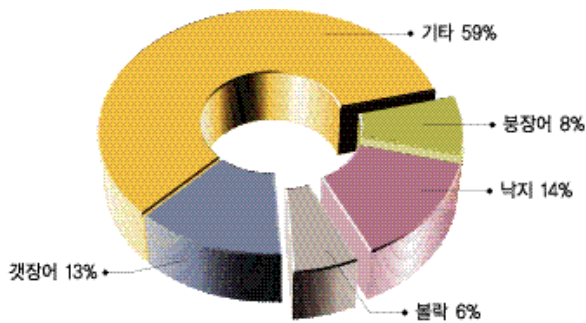


(CPUE)

1999 14,158 가
2001 15,225
CPUE
2003 0.40

3-207.

2)

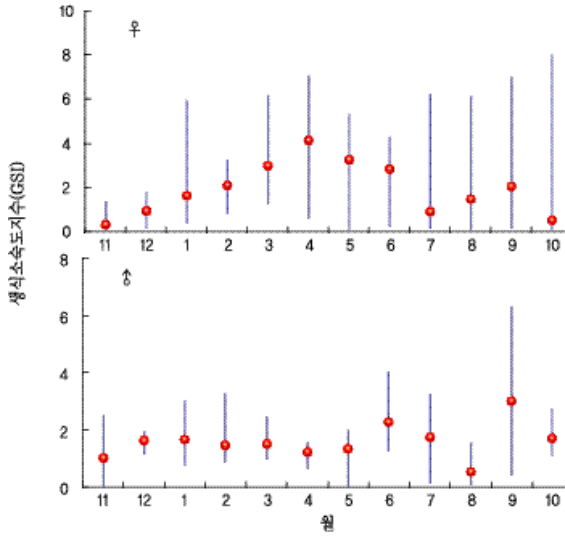


가 14%, 13%,
8%

3-208.

3)

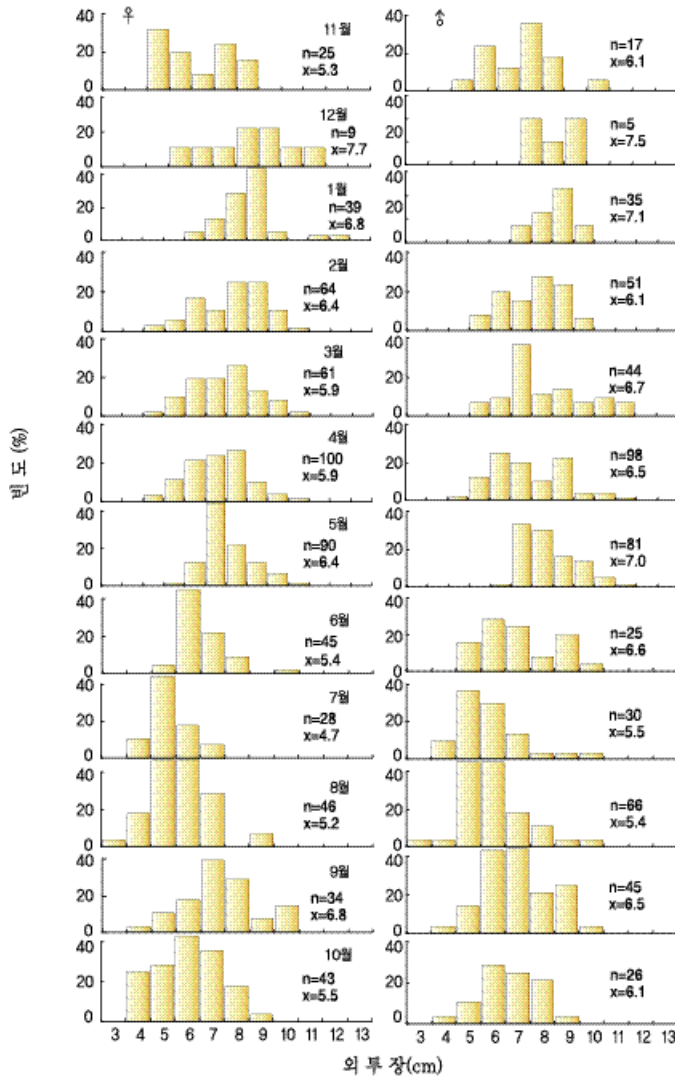
가)



3-209.

4~7
() 7.0 cm (
4,444)

4)

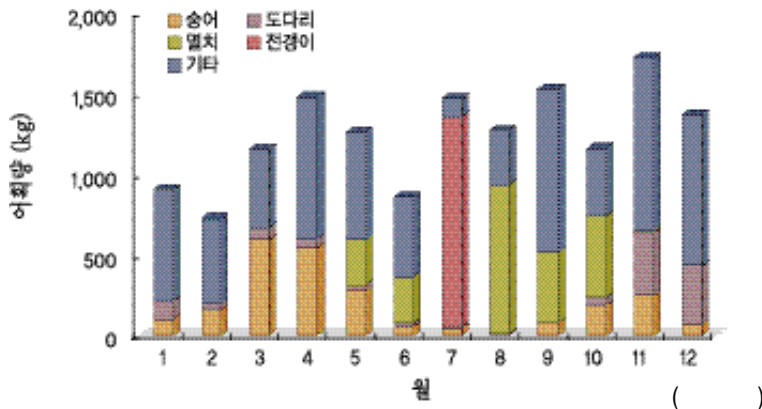


3-210.

3. (,)

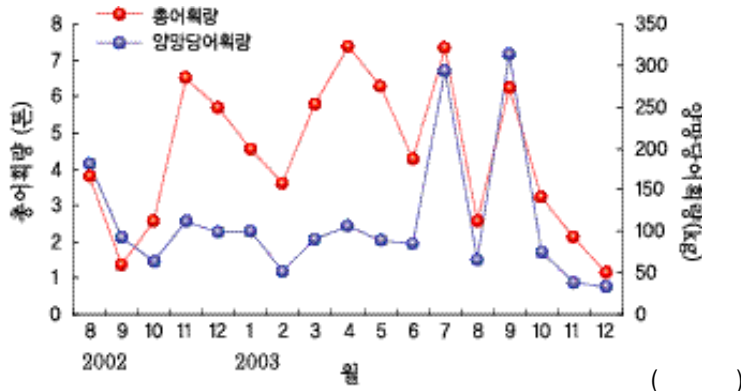
가.

1)



11 월 1.7 가
, 2 월 6

3-211.

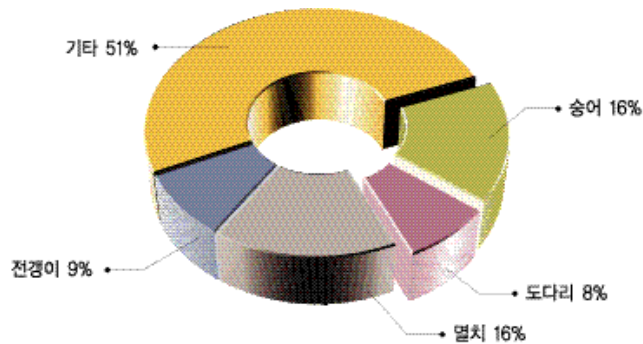


(CPUE)

2003 7 월 9 가
, 2003 2 월 가

3-212.

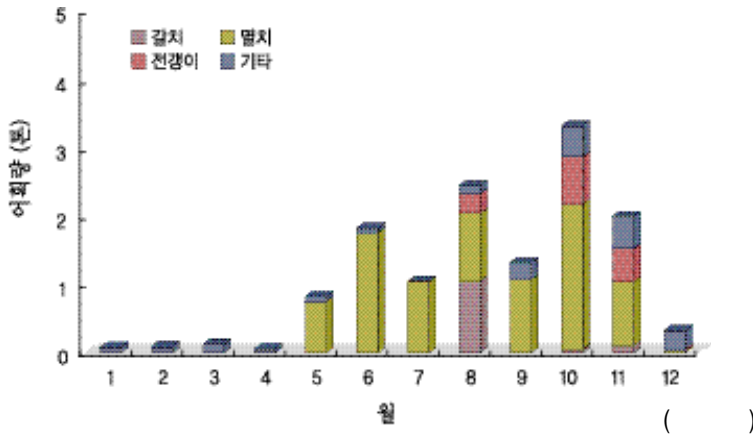
2)



16% 가
9%, 8%

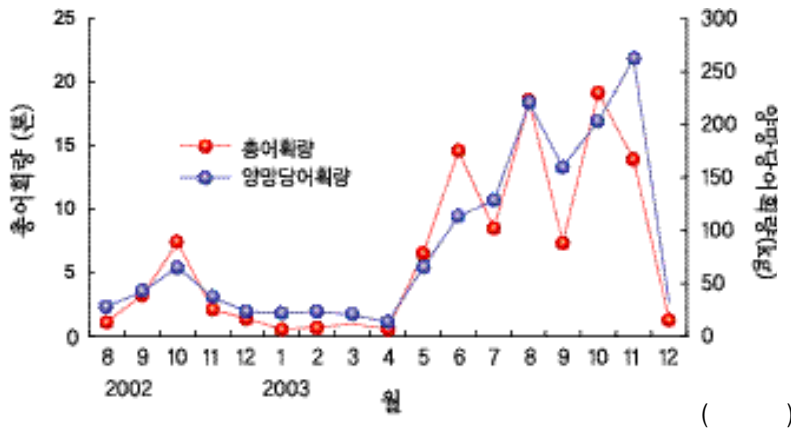
3-213.

1)



10 3.6 가
, 1 4

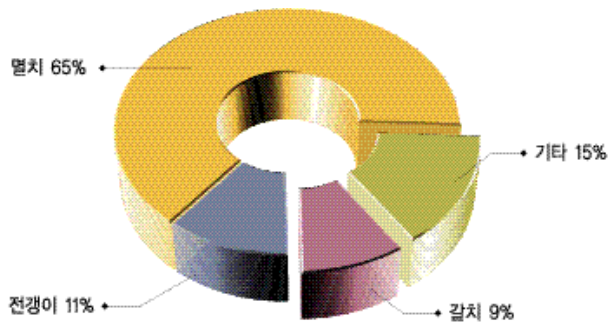
3-214.



(CPUE)
2003 11 가
2002

3-215.

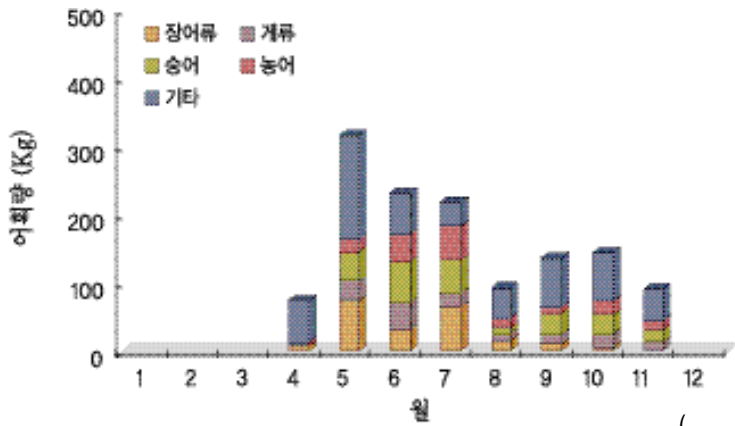
2)



, 가 가 65%
, 11%, 9%

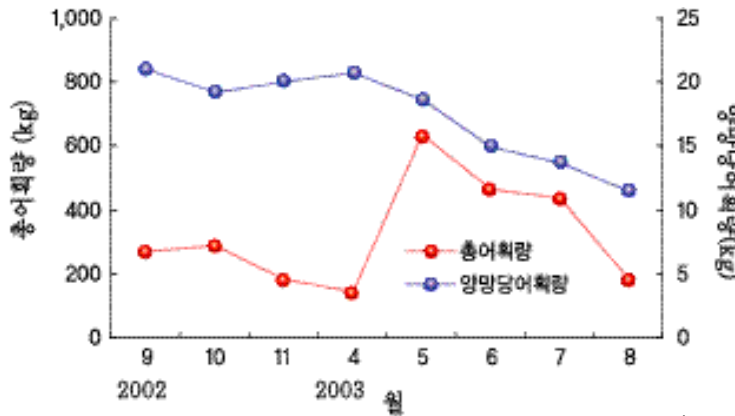
3-216.

1)



5 0.35 가
 , 4 0.1 가
 . 12 3

3-217.

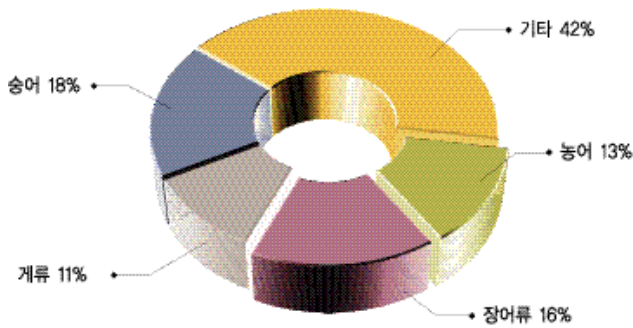


(CPUE)

2002 9 가
 2003

3-218.

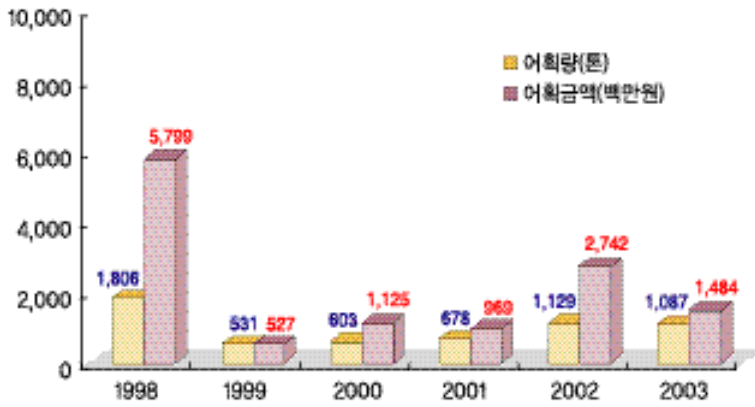
2)



, 가가 18%
 , 16%, 13%

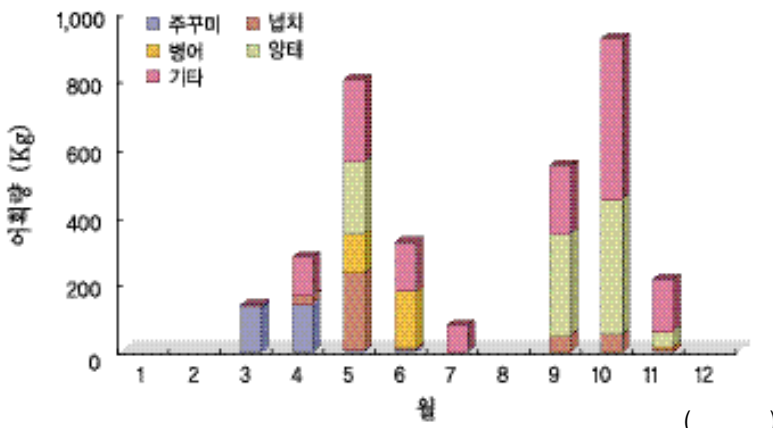
3-219.

1)



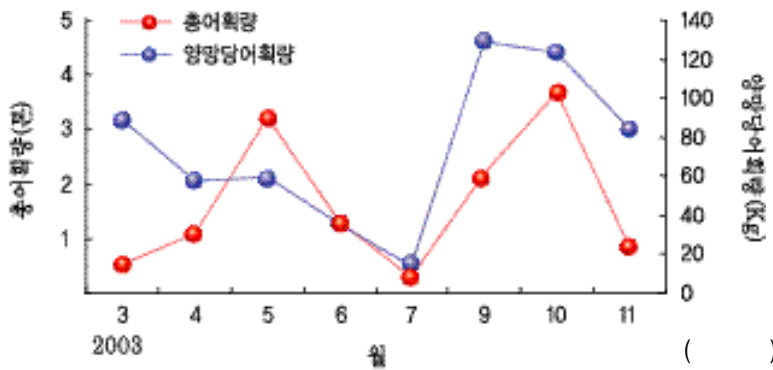
3-220.

3-220
 1998 1,806
 가 , 2001
 1000
 2002 2003 1,129
 , 1,087



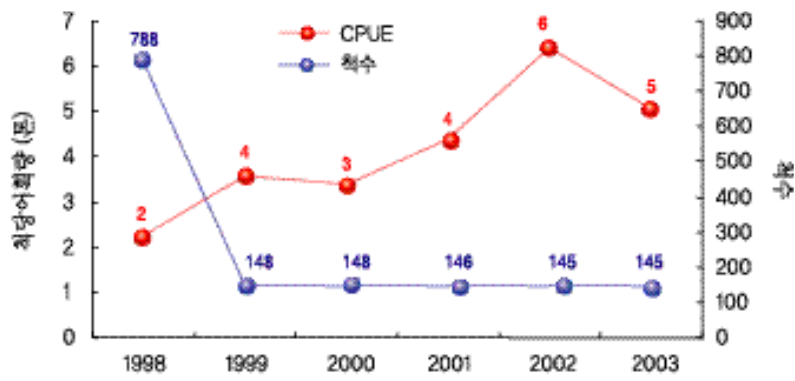
3-221.

5 10
 , 1 , 2 , 8
 가



3-222.

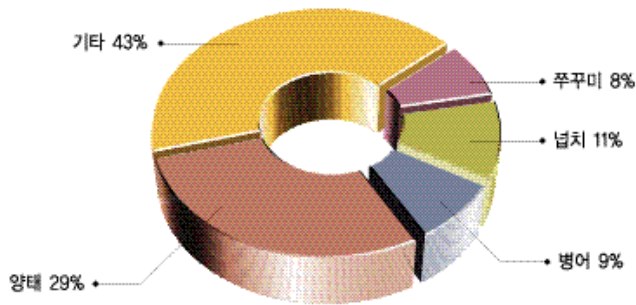
(CPUE)
 , 2003 5 3.2 , 10
 3.6



3-223.

(CPUE)
 . 1998 788
 가 ,
 2003 145
 . 1998 2
 가 , 2002 6
 가 , 2003
) 5

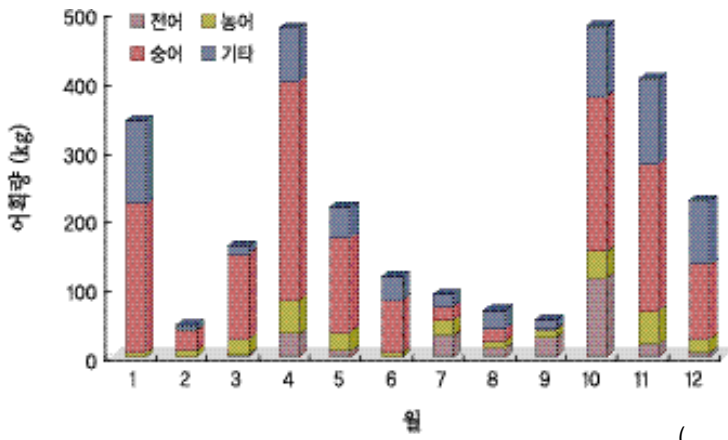
2)



3-224.

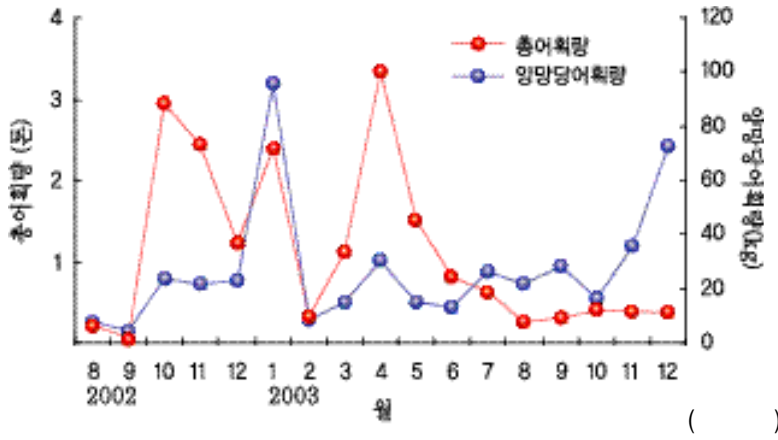
가 29% 가 ,
 11%, 9%,
 8%

1)



2003
4 10
0.5 가 , 2
0.07 가 .

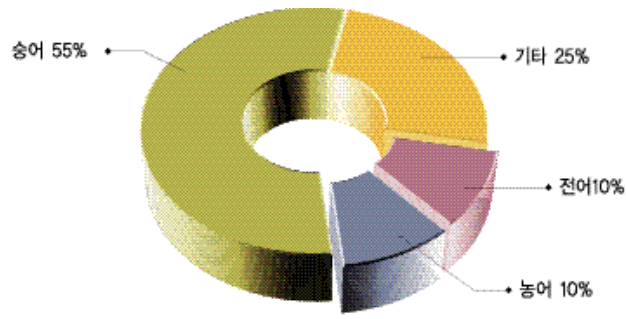
3-225.



(CPUE)
2003 1 가 ,
2002 9 가 .

3-226.

2)

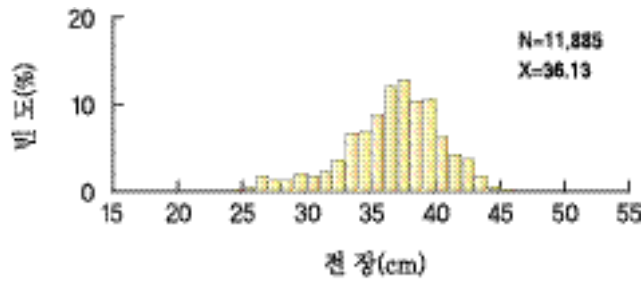


가 가
55% , 10%,
10% .

3-227.

3)

가)



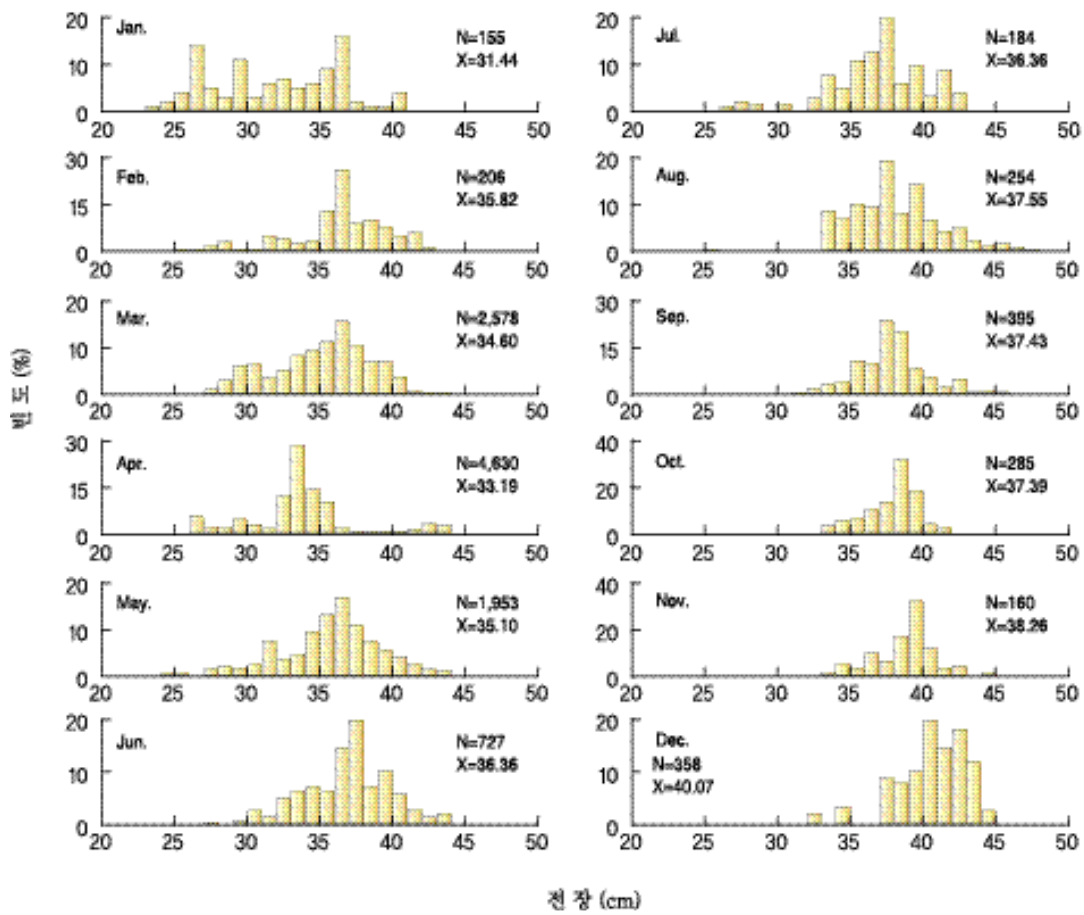
5 8

() 36.13cm (11,885)

3 4

cohort가

3-228.

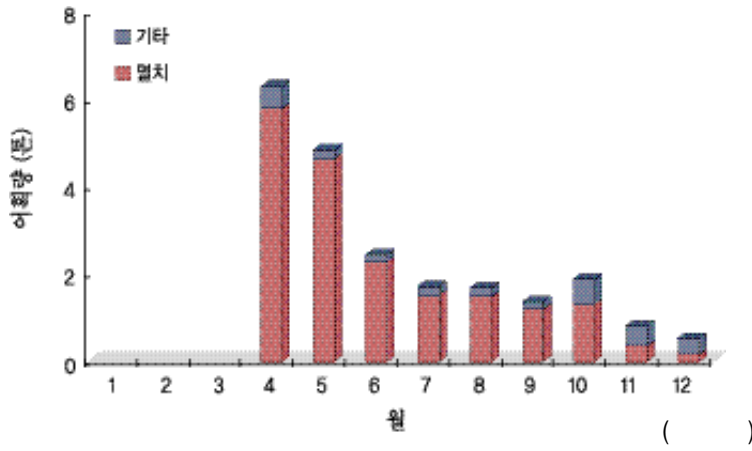


3-229.

4)

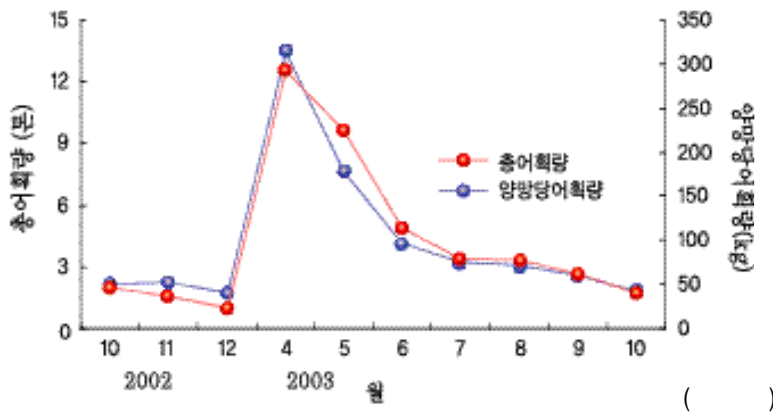
1 3

1)



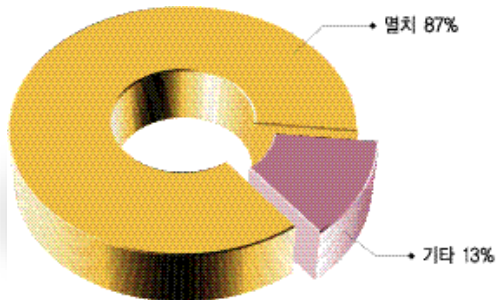
4 6.3 가
, 12 가 1
1~3

3-230.



(CPUE)
2003 4 가
. 2002

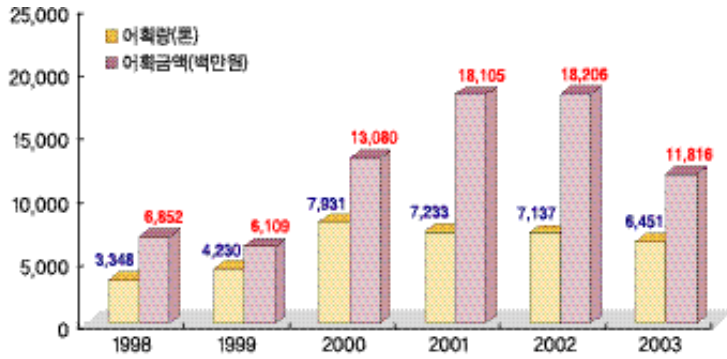
3-231.



, 가 가 87%

3-232.

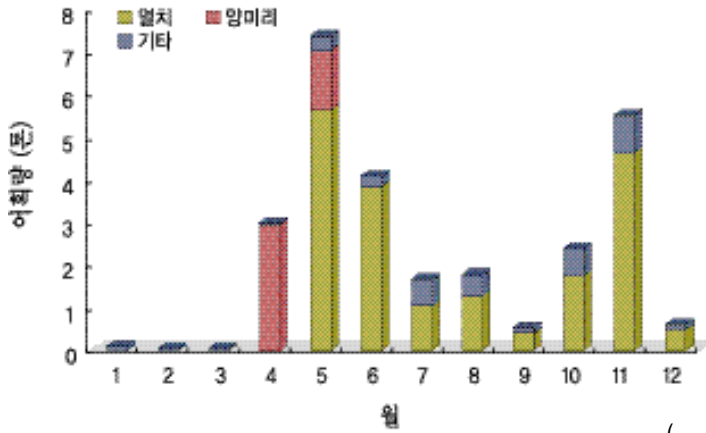
1)



3-233
 2000 7,931
 가 , 1998
 3,348 가 .

()

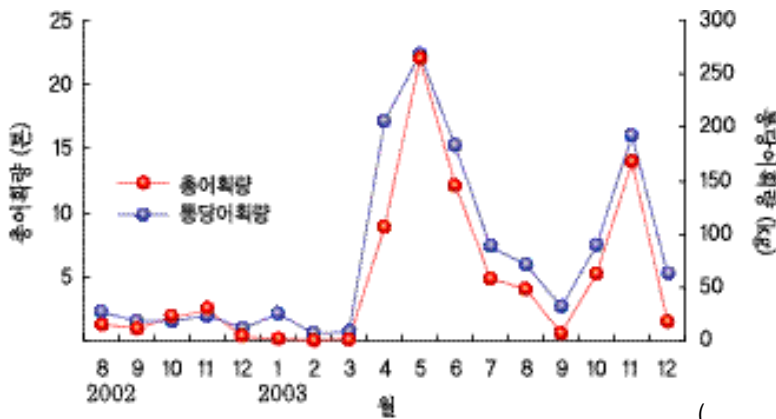
3-233.



5 7.5 가
 , 9 가 . 1 3

()

3-234.

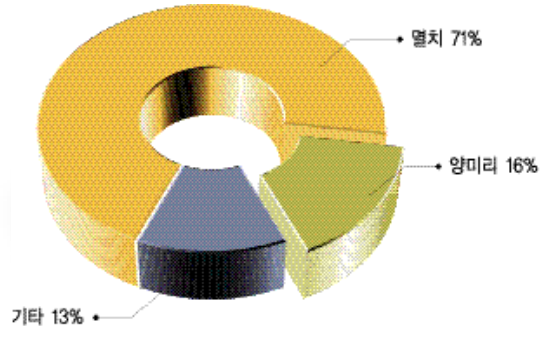


(CPUE)
 2003
 5 가 , 2002

()

3-235.

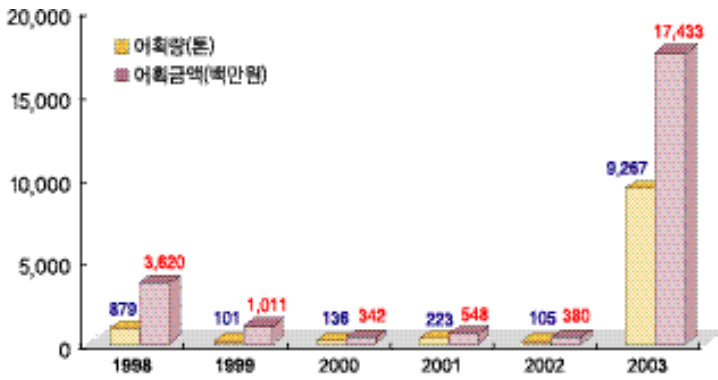
2)



, 가 가 71%
, 16%

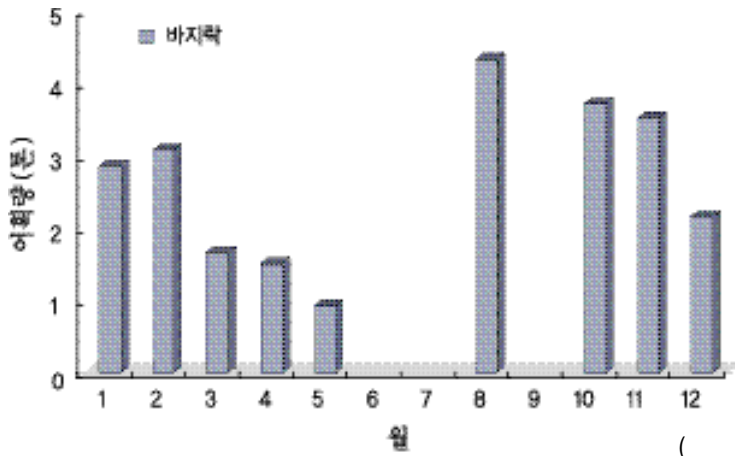
3-236.

1)



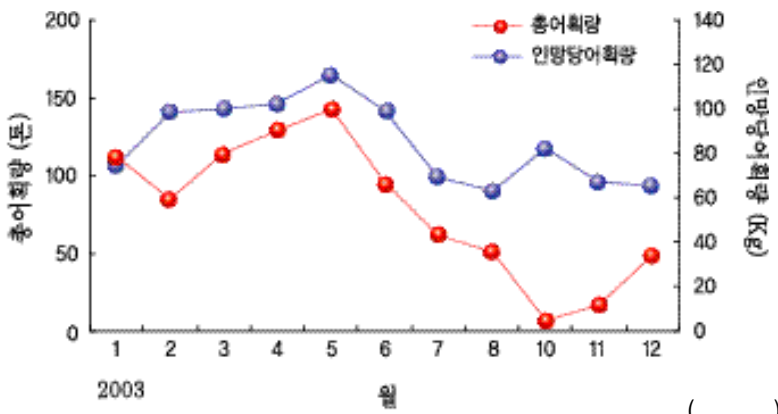
3-237
 2003 9,267
 가 , 1999 101
 가

3-237.



2003
 8 4.3 가
 , 5 0.9 가
 , 6 , 7 , 9

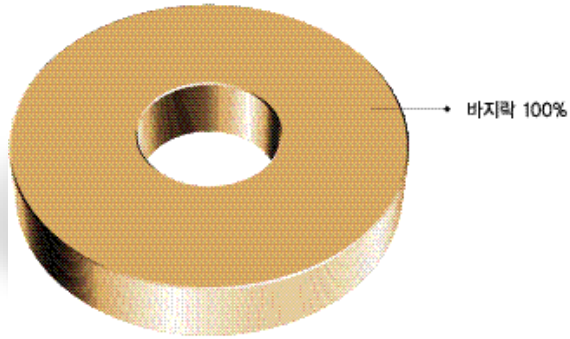
3-238.



(CPUE)
 . 2003
 5 142
 6 , 10

3-239.

2)

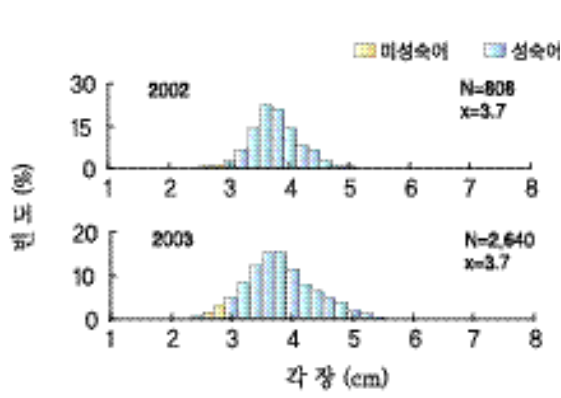


100%

3-240.

3)

가)



3-241.

6~9

7~8

50%

(Shell Length) 3cm

2002

() 3.7 cm (

808) , 2003

3.7 cm (2,640)

2002

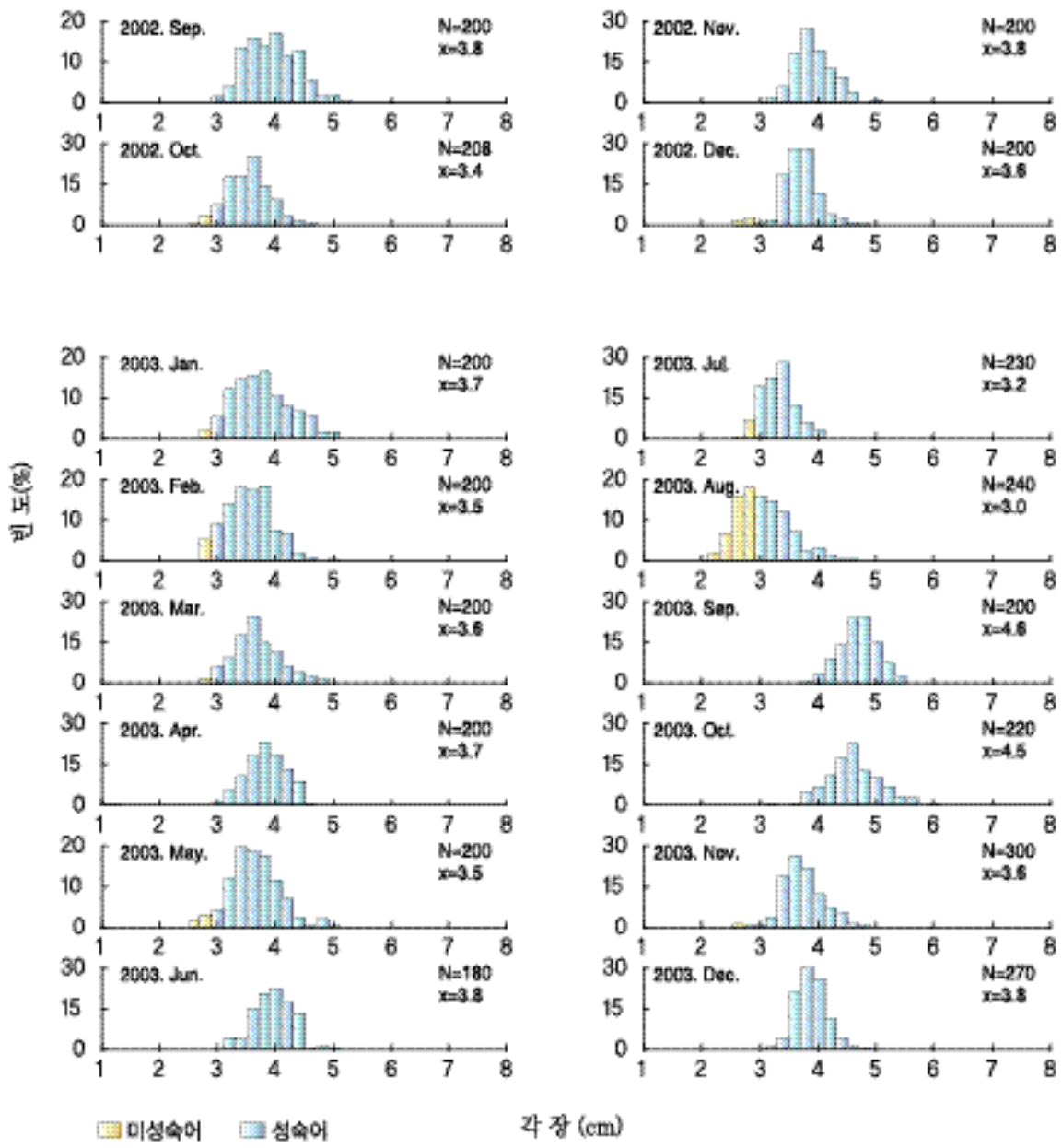
1.6%

, 2003

16.6%

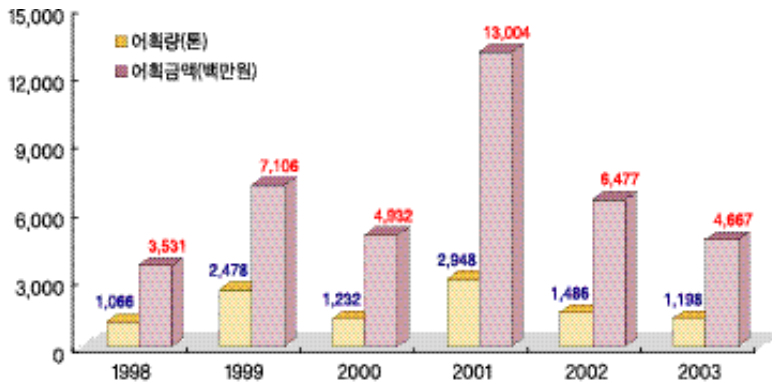
2003

7~8



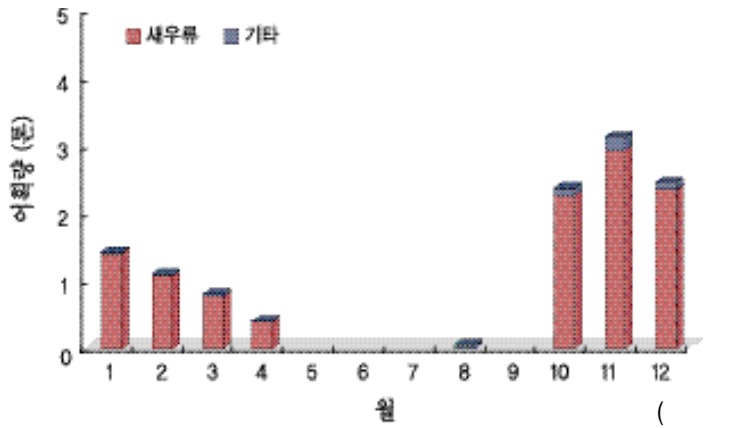
3-242.

1)



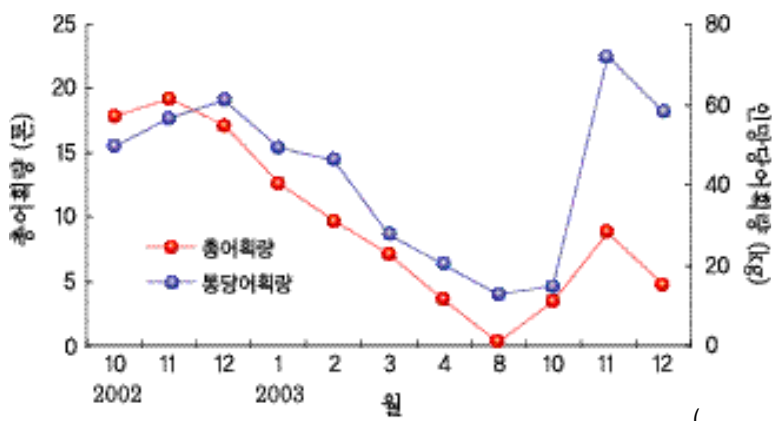
3-243
 2001 2,948
 가 , 1998
 1,066 가

3-243.



11 3.5
 가 , 8
 .5 7 , 9

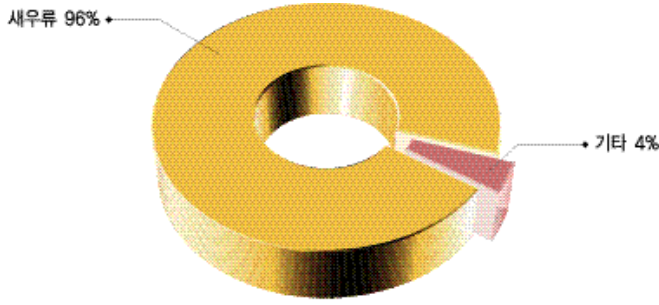
3-244.



(CPUE)
 2003 11 가 ,
 2003 8 가

3-245.

2)



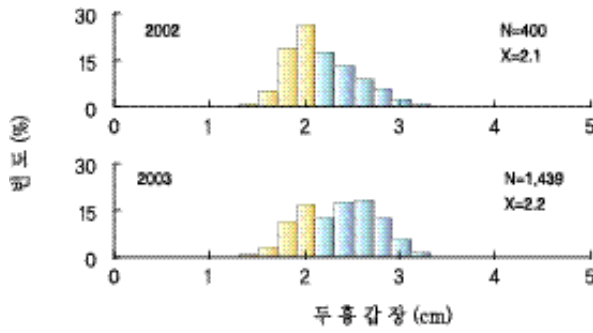
96%

가 가

3-246.

3)

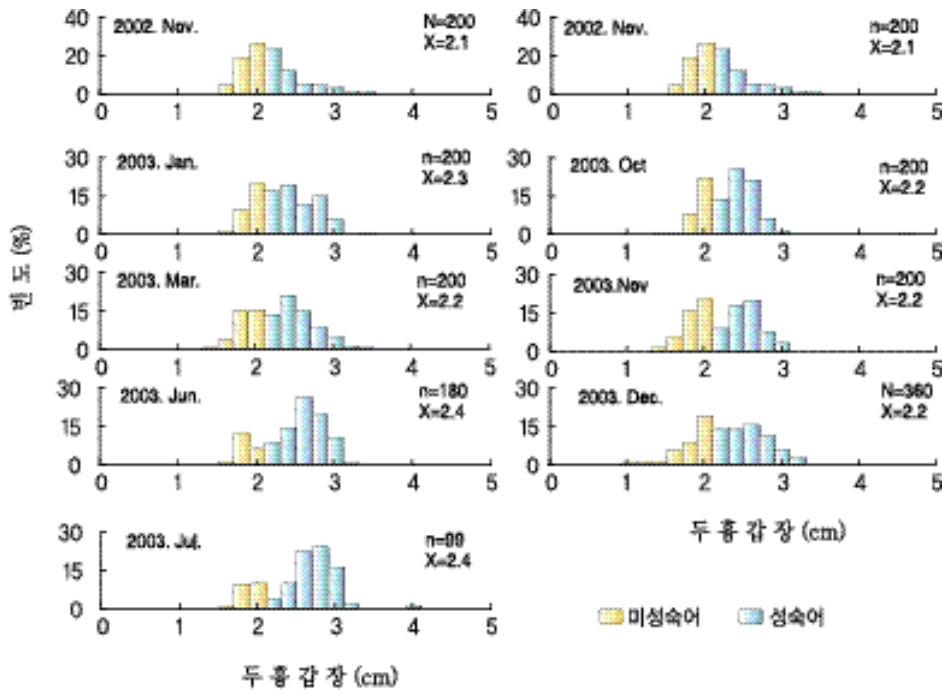
가)



5~8

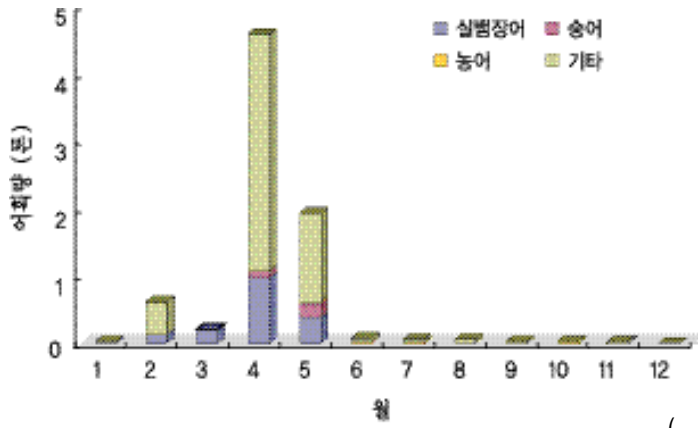
2002 () 2.1cm (400) , 2003 2.2cm(1,439)

3-247.



3-248.

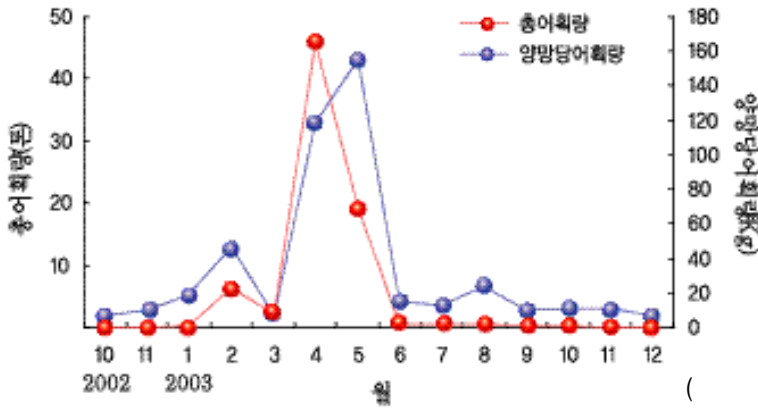
1)



3-249.

()

4 4.5 가
, 6~12



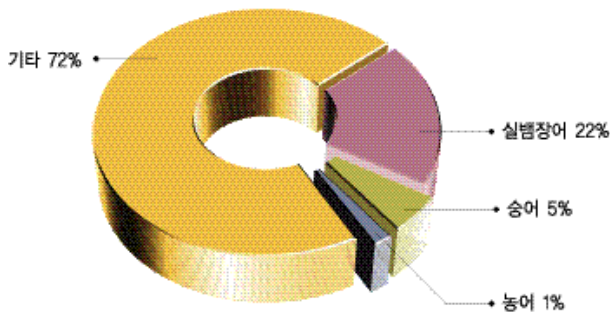
3-250.

()

(CPUE)

4 45 가
1

2)



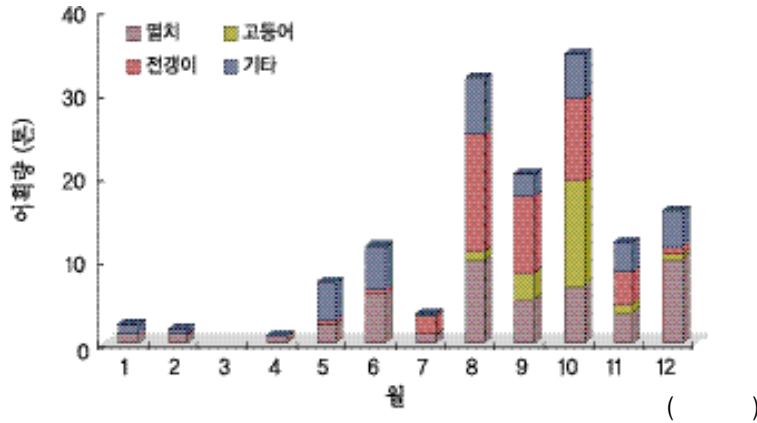
3-251.

가 22% 가 ,
5%, 1%

4.

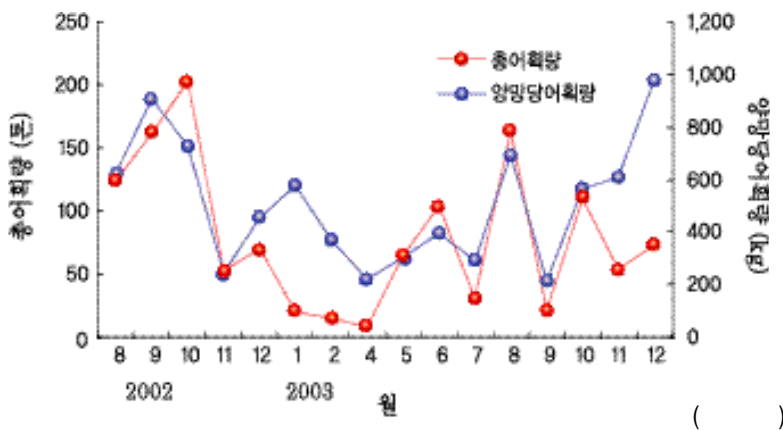
가.

1)



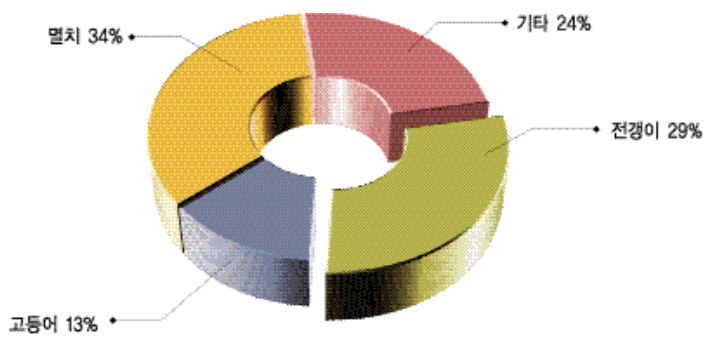
3-252.

2003
8 10
35 가 , 1~4
.3



3-253.

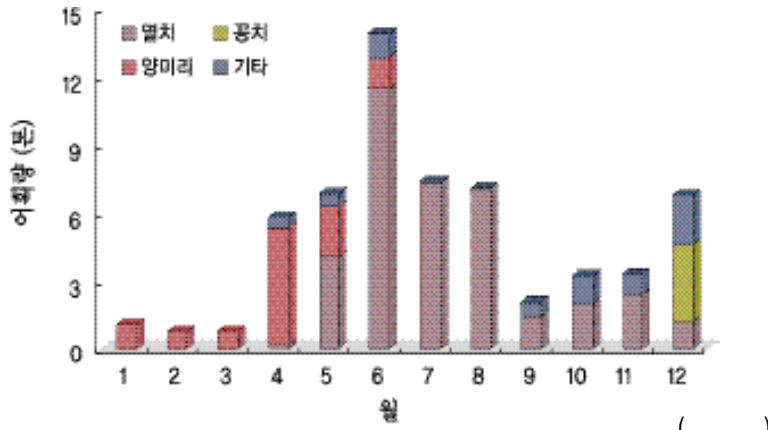
(CRUE)
2003
12 가 , 2003
4 9 가



3-254.

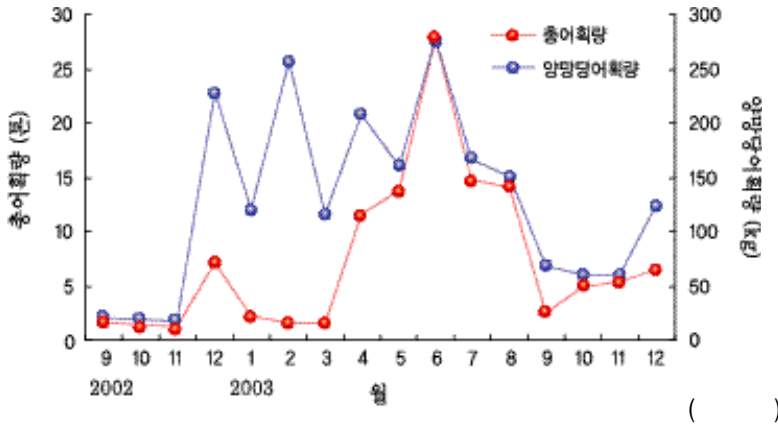
가가 34%
, 29%, 13%

1)



3-255.

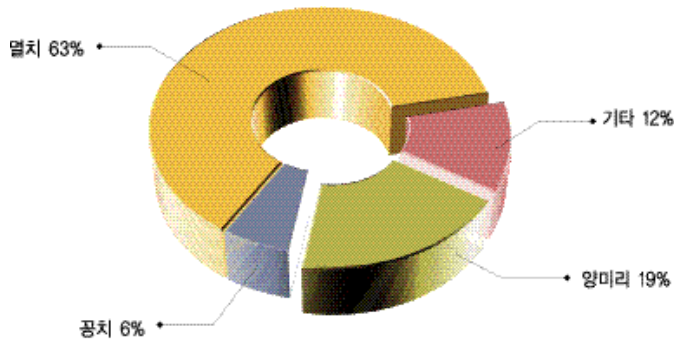
2003
6
가 , 1~3
15



3-256.

(CPUE)
2003 6 가 ,
2002 12

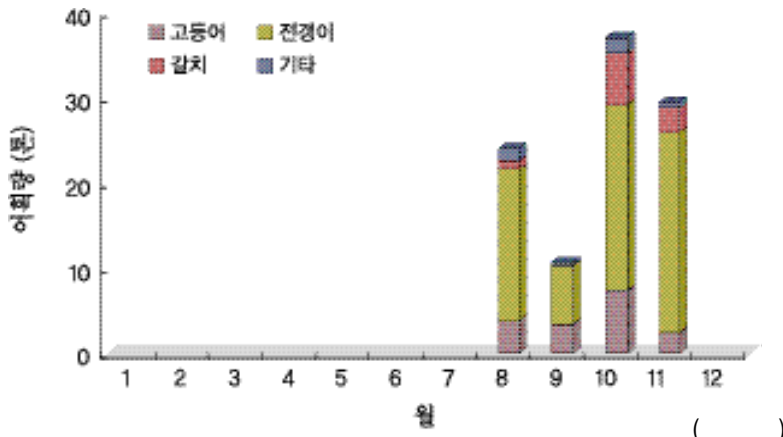
2)



3-257.

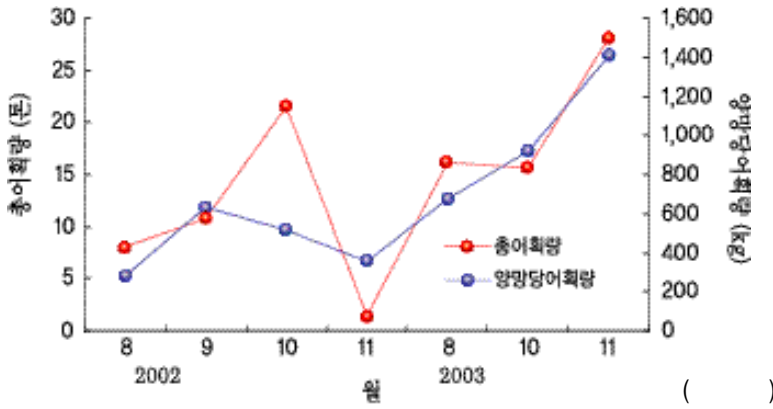
가 가 63%
, 19%,
6%

1)



3-258.

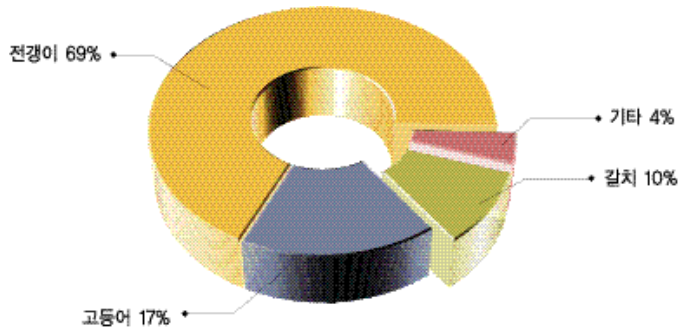
10월 40톤 가
9월 10톤 가
1~7월, 12월



3-259.

11월 8월 가 CPUE 2003, 2002

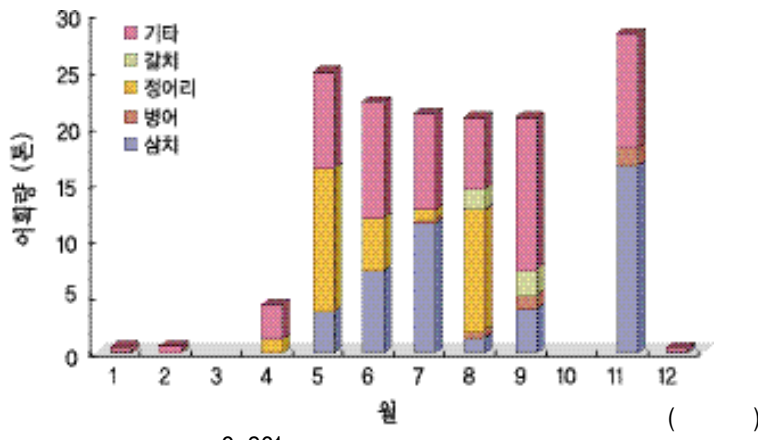
2)



3-260.

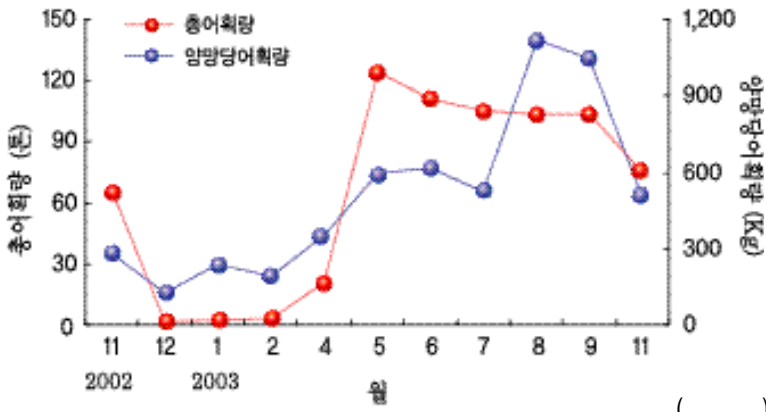
69% 17%, 10% 가 가

1)



3-261.

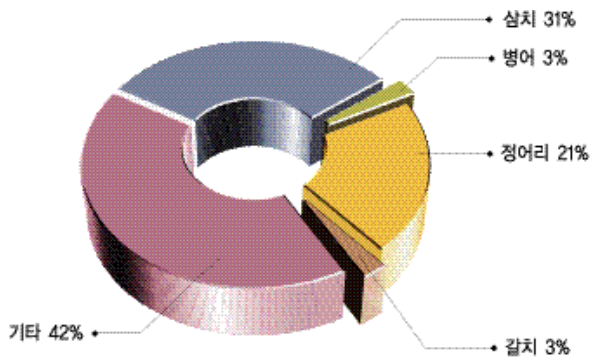
2003
11 28 가
, 3 10



3-262.

(CPUE)
. 2002 11
2003 4
, 8
가 124 가
, 11
75 .

2)



3-263.

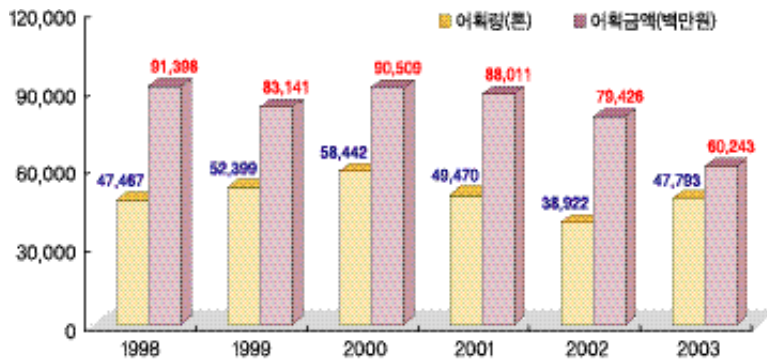
가 31% 가 ,
21%,
3%

5.

가.

1)

(CPUE)

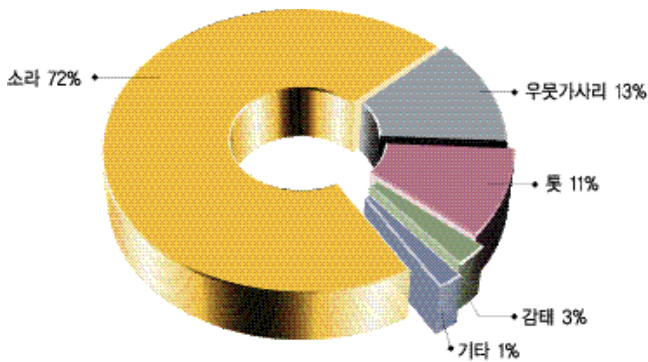


2000 58,442 가
, 2002
38,922 가
2003 47,793

()

3-264.

2)

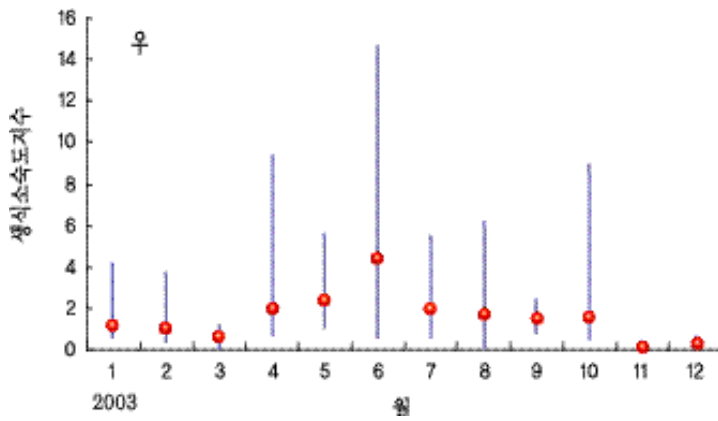


2003
가 72%, 가 가 13%,
11%, 가 3%

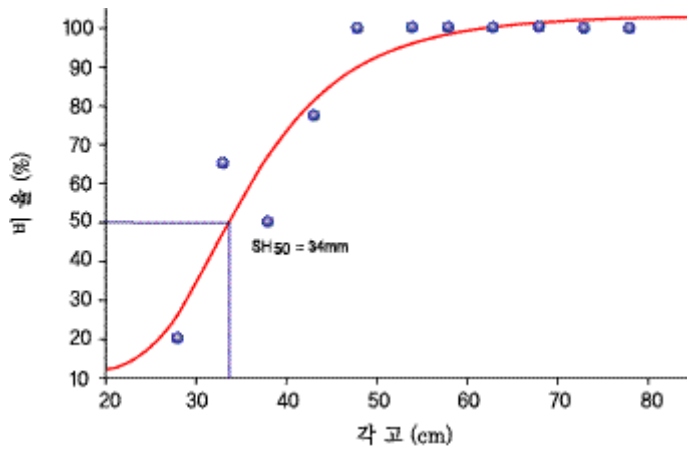
3-265.

3)

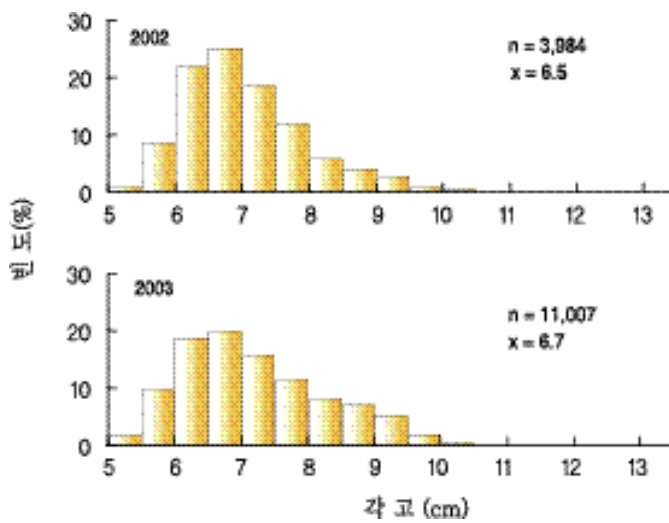
가)



3-266.



3-267.



3-268.

7~9
(Lee, 1983),
(2002) 6~8
. 2003
4 가 6
4.5
6

2002 (10~12)
가 6.5cm (
3984) , 2003
6.7cm (11,007)
3.4cm
Bertalanffy
1.34

1. 가 (Rajidae)

가.

가 (*Okamejei kenojei*), (가, *Raja pulchra*)

, 가

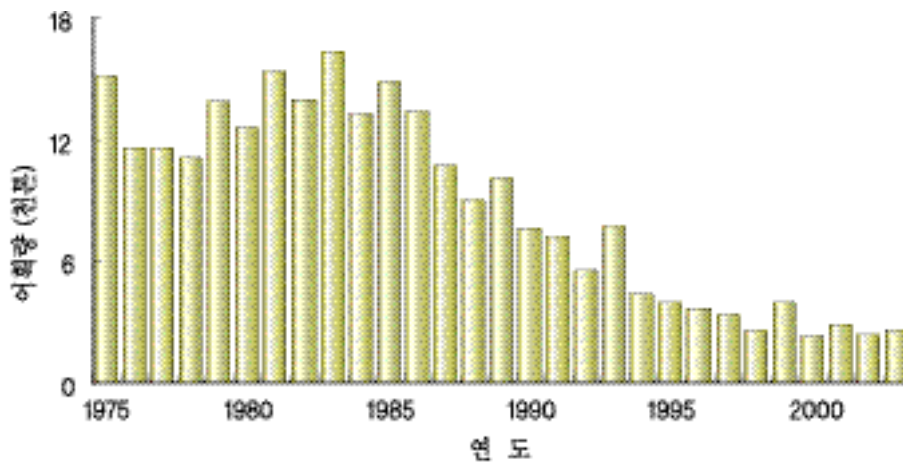
) , 4 5 , 4.8 6.6cm, 2.9 3.7 cm

3 8

5cm 가

가

5 6



4-1.

가

'70

가

, '80

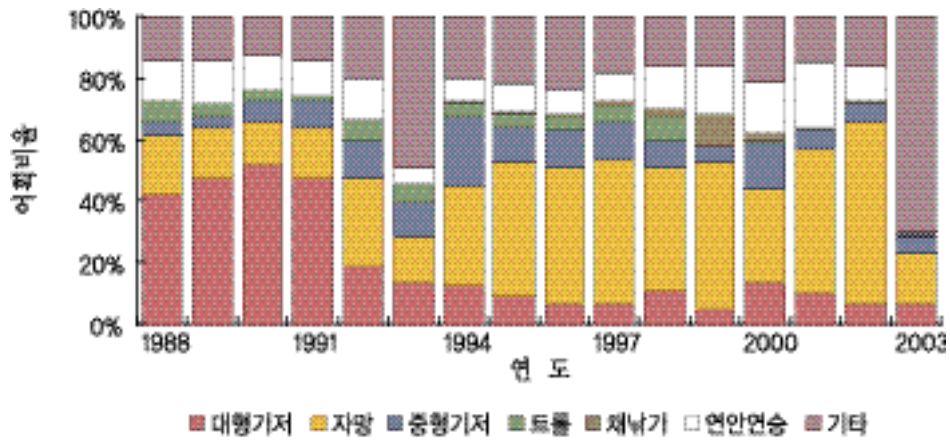
1 6

3

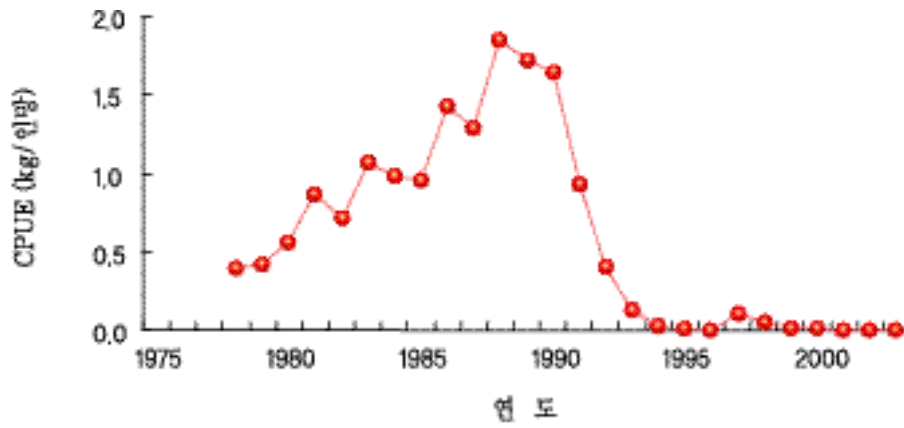
. 가

, '90

가



4-2.



4-3.

가 (P<0.05), CPUE '80

가 TAC ABC 5 가 (CV=21%) '98 '03

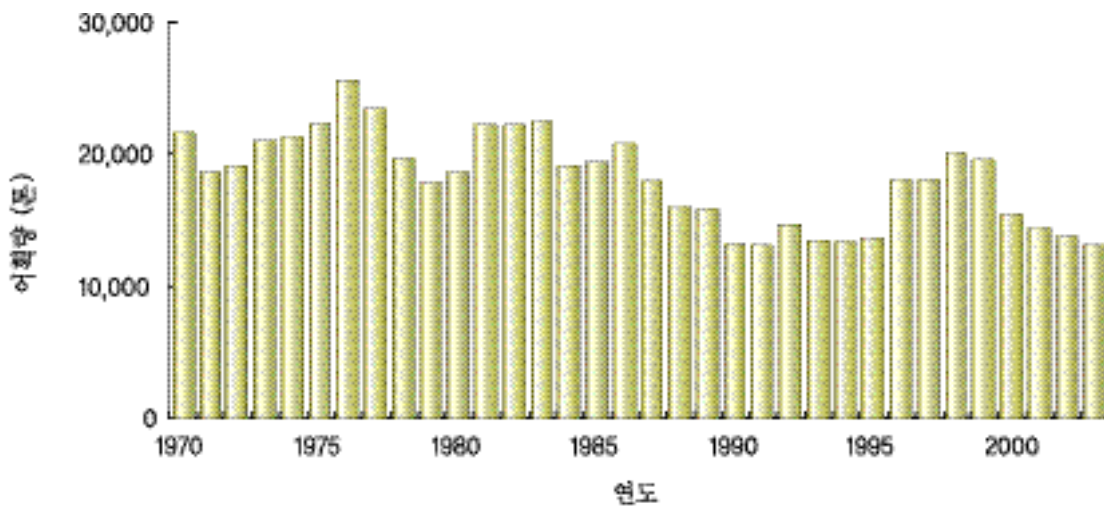
2 8 가 ABC 2 1

	ABC ()
YAM	2,100

2. 가 (Pleuronectidae)

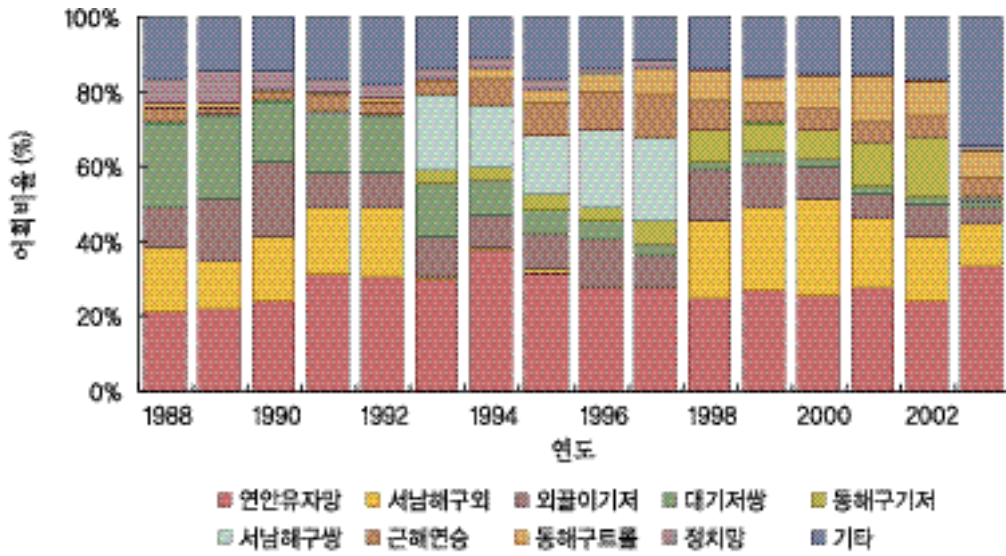
가.

가 , 가 , 가 가 . 가
 (*Eopsetta grigorjewi*) , 가 가 가
 가
 가
 가 2 4 , 2 3 ,
 241, 234 101 50%
 가 28.1cm . 10 20 , 200m
 , () , 가

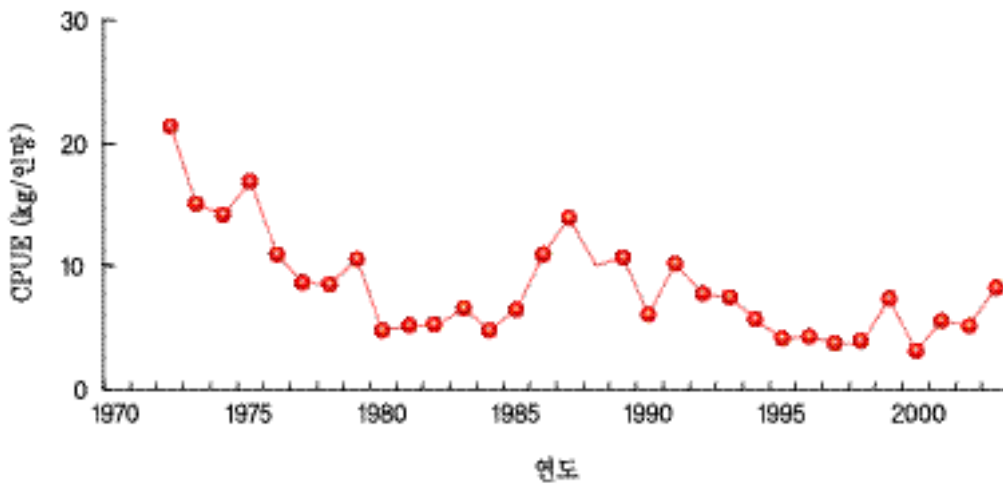


4-4.

가 , '76 2 6 '90 '95
 1 3 . '96 가 '00
 '03 1 3 .
 가 , , ,
 , '03 34%,
 12%, 4% ,



4-5.



4-6.

가 CPUE() , '70
 '80 가 1985 가 .
 1987 , 2000 가 .

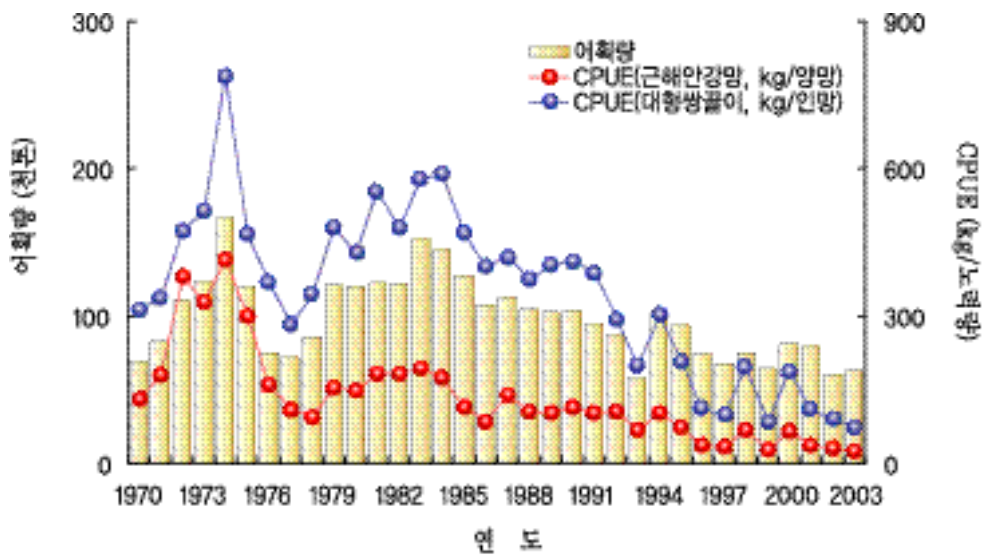
가 TAC ABC 5 .
 (CV=7.0%) '00 '03 1 4 ABC 1 1

	ABC ()
YAM	11,000

3. (*Trichiurus lepturus*)

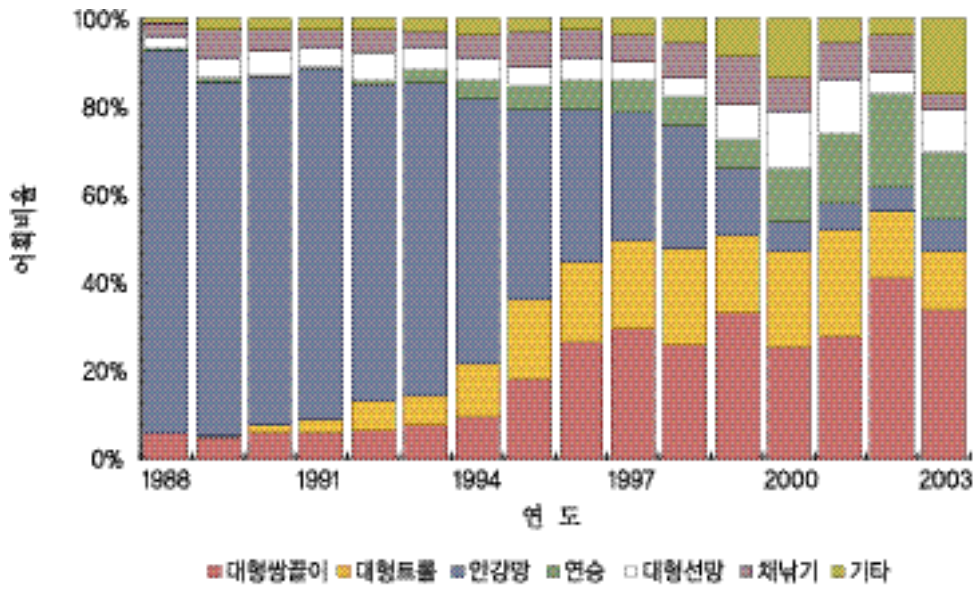
가.

200m
6 10 11
4 5
, 6
가 4
10 5 9 50% 25.6
cm() 2.5 267,000 (AL 49.8cm), 31,145 (AL
24.2cm) 13 50cm()



4-7.

'83 , '90 10
'01 8 , '02 6 , '03 6 2
, '02
41%가 , '03
34%, 15%, 13%



4-8.

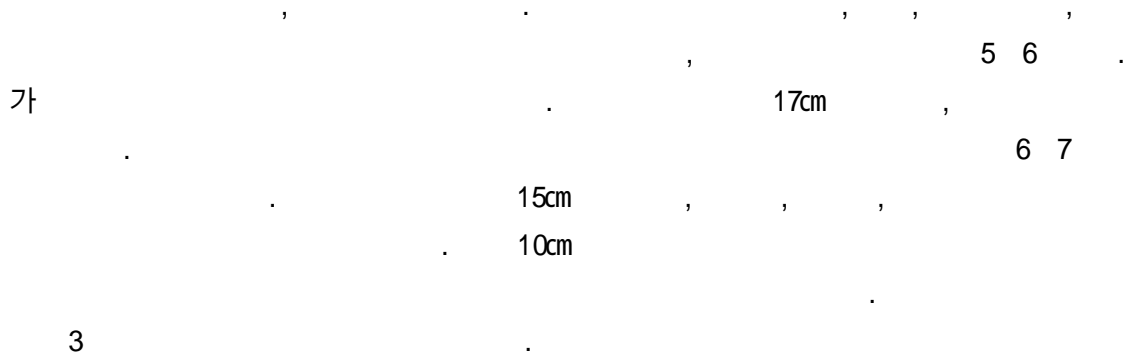
(CPUE,)
 (P<0.01), 1970 132kg/
 '74 415kg/ 가 '80 180kg/
 가 '90 100kg/
 50kg/ , '90
 , '94 300kg/ , 200kg/
 '90 가 (P<0.01),
 '90 /가

TAC ABC 4 5 .5
 가 '88 '03
 (8 2) ABC 6 2 , ABC
 4 (MSY) MSY CPUE(CRUE_{MSY})
 , 0.67 1 ABC
 4b) ABC 5 6
 5 6 6 2

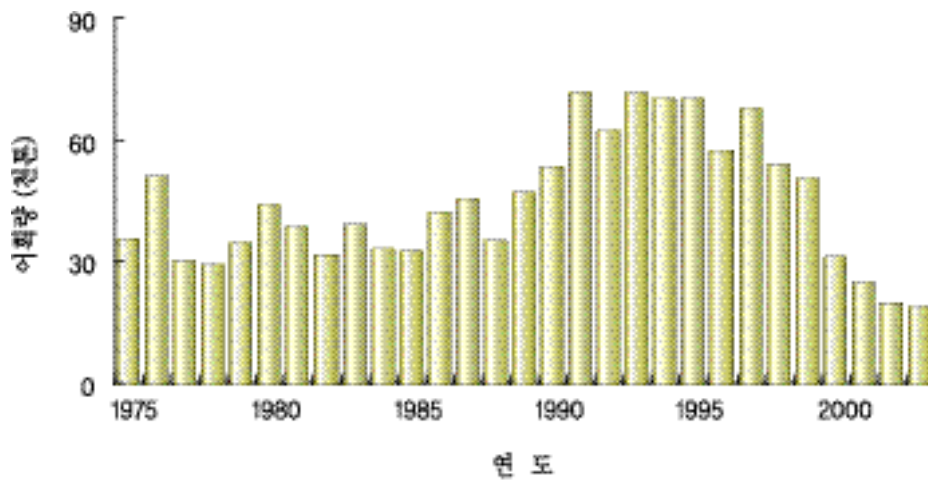
	ABC ()
MSY	56,000
YAM	62,000

4. (*Collichthys* spp.)

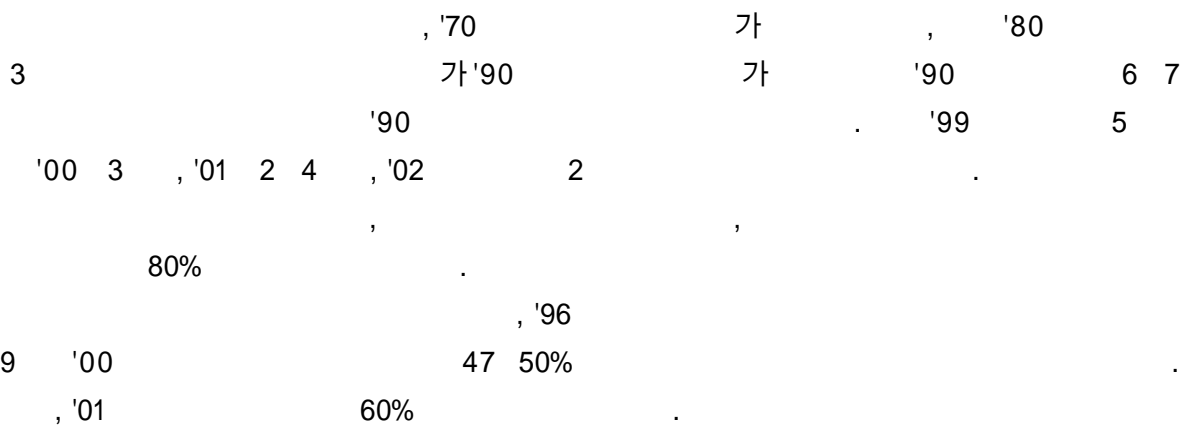
가.

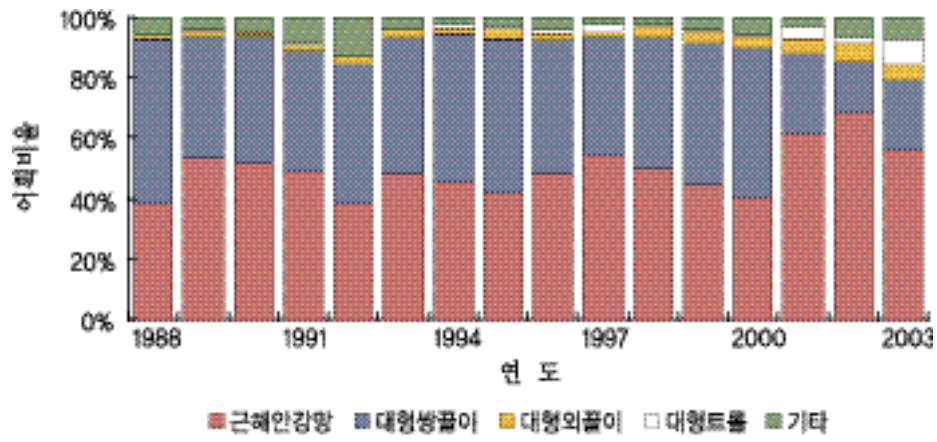


3

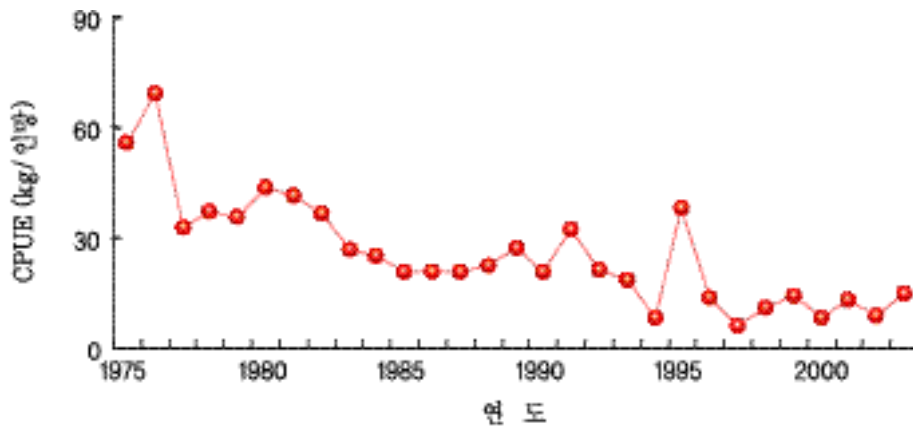


4-9.





4-10.



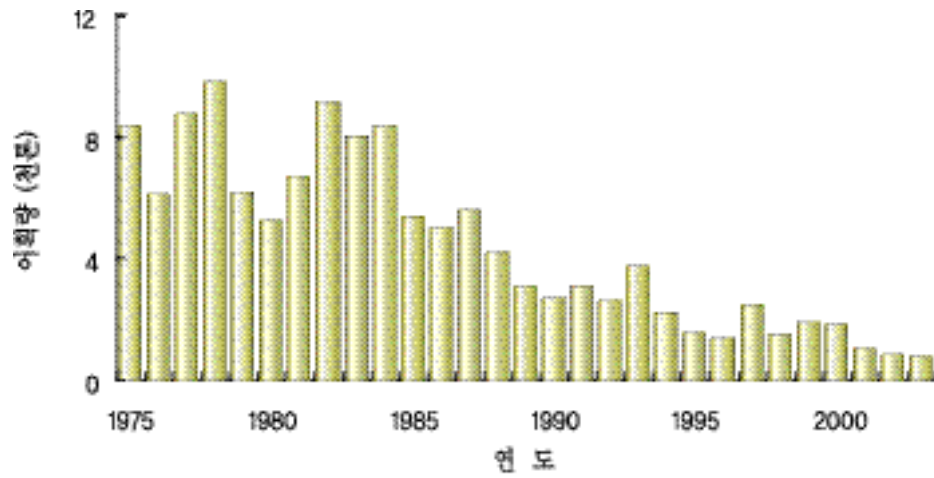
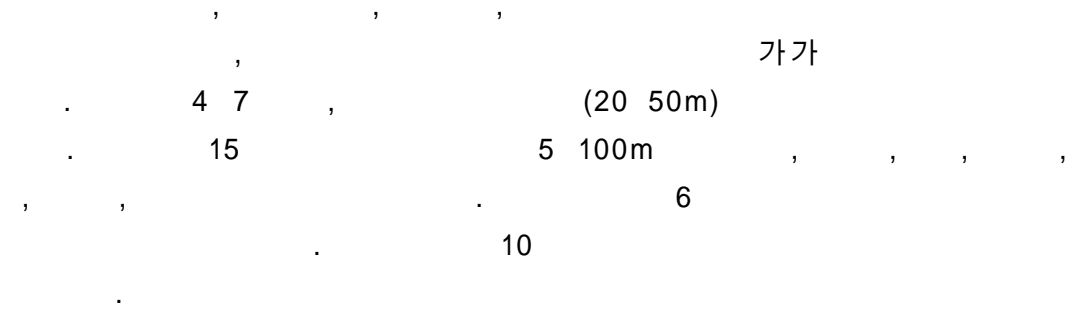
4-11.

(CPUE) , '70
 가 '70 , '90
 '90 , '70
 '96 ,
 '04 가 '01
 '03 2 1 ,
 (ABC) 1 6

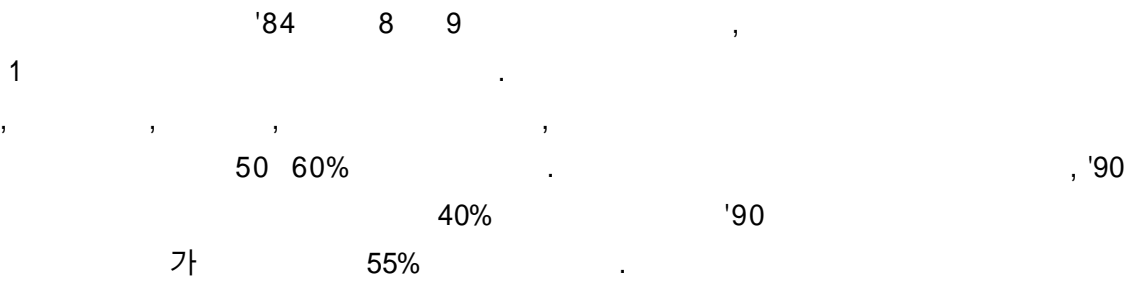
	ABC ()
YAM	11,000

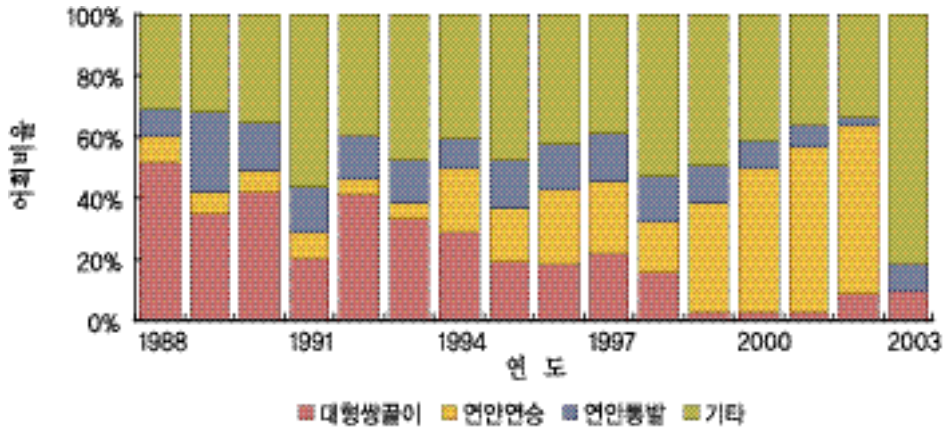
5. (*Muraenesox cinereus*)

가.

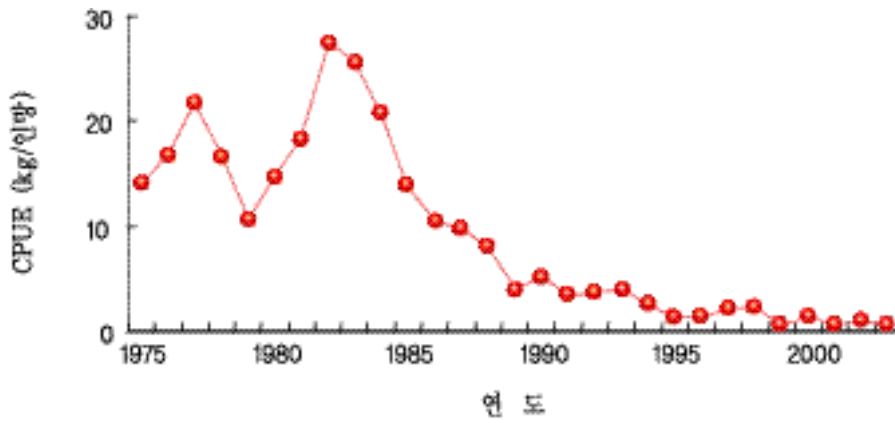


4-12.





4-13.



4-14.

'80 (CPUE) '82 27.6kg/1kg/ , '90

가 TAC ABC 4
 CPUE ABC 4
 (MSY) MSY CPUE , CPUE_{MSY}
 CPUE/CPUE_{MSY}=0.06 ABC 4b)
 (ABC) 70

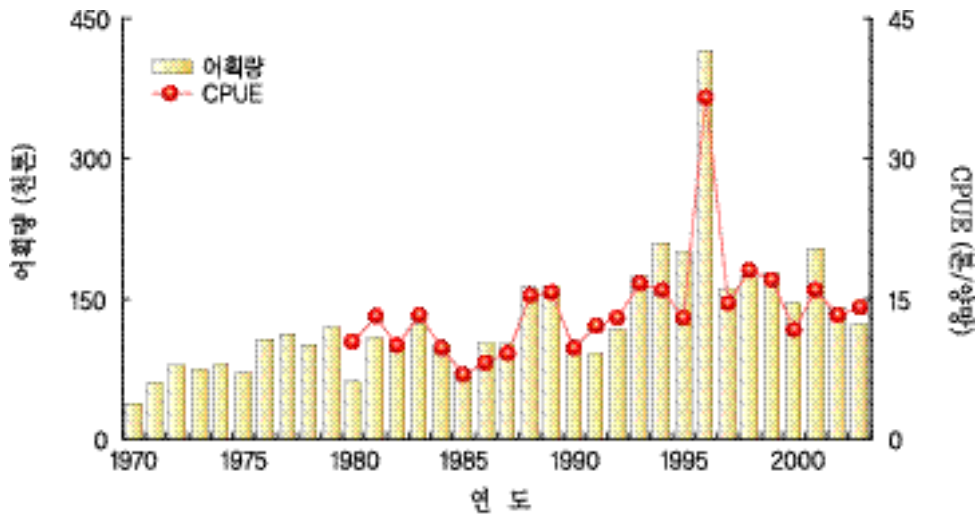
CPUE/CPUE_{MSY}<0.05

	ABC ()
MSY	70

6. (*Scomber japonicus*)

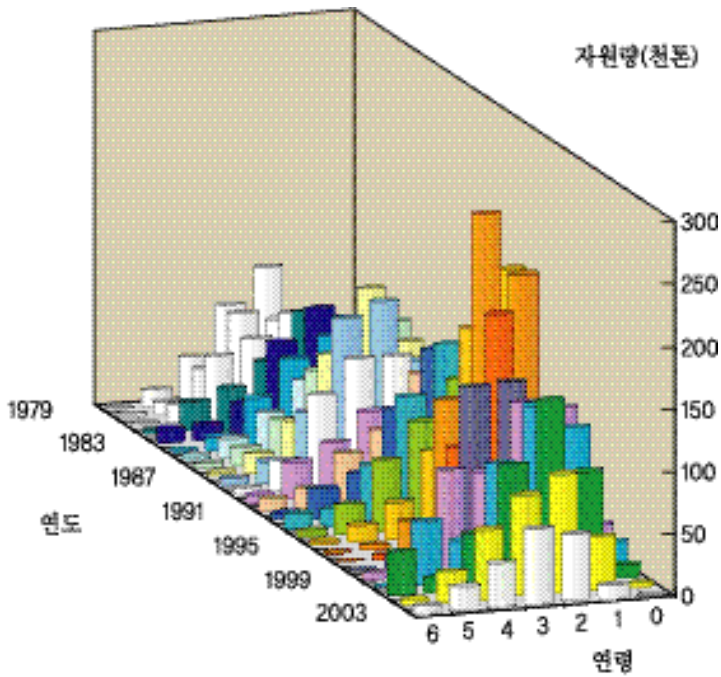
가.

가 , ,
300m 가 ,
가 五島 ,
3 6 , 4 5
570,184 (FL 38.8cm), 112,447 (FL 30.1cm) , 50%
가 (Fork Length) 28.7cm , 2.4 .
가 가



4-15.

'75 '87 5 10 가'88 '89 15
10 '93 15
, '96 42
'01 20 4 , '02 14 2 , '03
12 2 14%
80 90%가
'94 1% '98 6% 가 '03 93%



CPUE() '85
 6.9 /
 '96 36.5
 /
 14 /
 '01 16.0 , '02 13.2 /
 , '03
 14.1 /
 VPA
 '96 40
 ,
 1 가
 '97 20
 '02 10
 가 '99 '02 가

4-16.

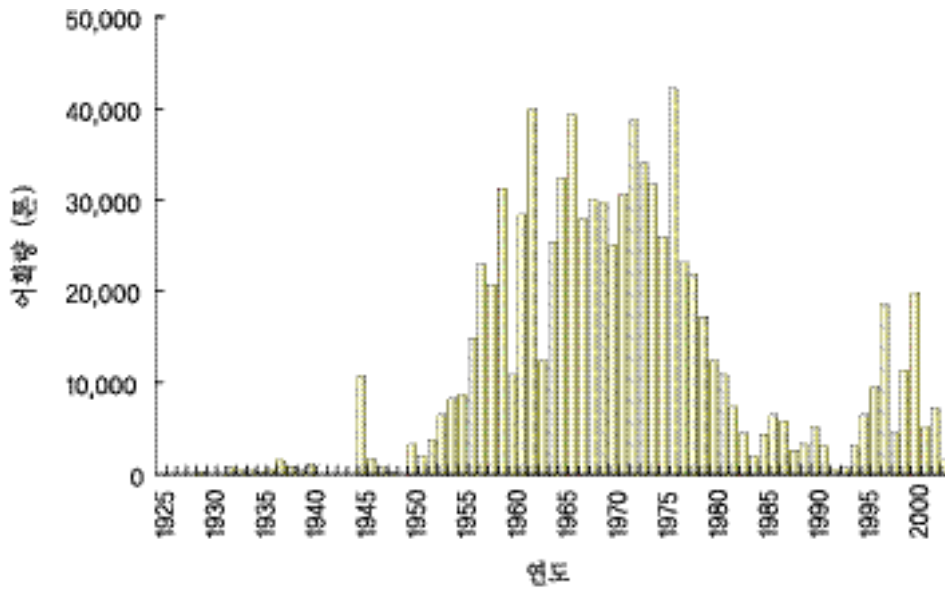
VPA TAC ABC 2 ,
 (B) 50
 F_{40%} 0.49/ , B_{40%} 55 B/B_{40%}
 0.9 1 ABC 2b)
 F_{ABC} 0.45/ '03 (ABC) 15
 , 12 8

	ABC ()	F _{ABC} ()
F _{40%} ()	150,000 (128,000)	0.45

7. (*Cololabis saira*)

가.

4 6
9 , 11 12
가 , 가 22cm(가)
4 7 , 가 30cm 가 10 11
3 35cm



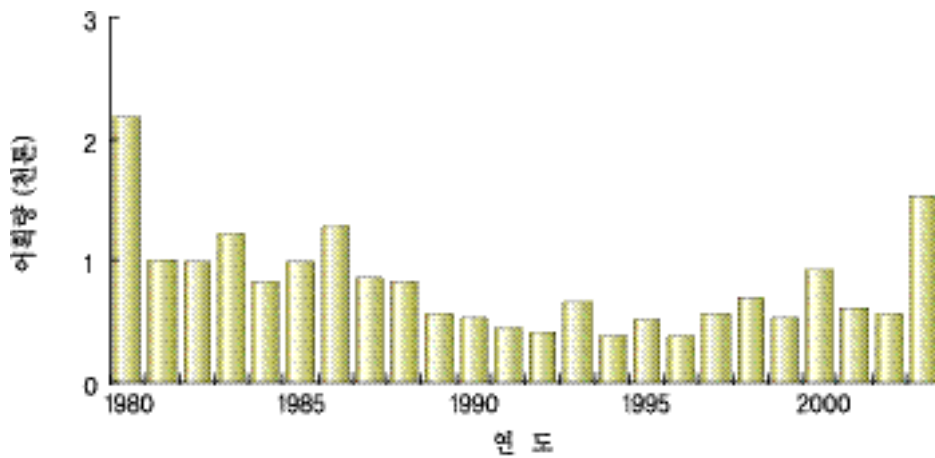
4-17.

, '73 '76 (4 2)
'84 2 5
가 '92 5 '90 '97
가 , '00 2 '80 '03
1 4 , '03 40%, 38%, 5% ,
, 가 ,

8. *(Doederleinia berycoides)*

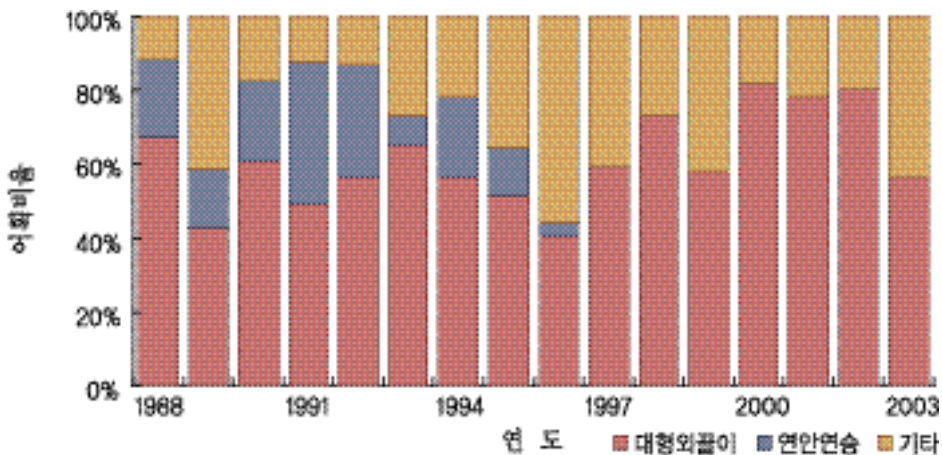
가.

山陰沿岸 , 7 80 150m
 가
 8 10 , 9 10 , 50%
 (Total Length) 29.0cm
 , 50 60% 가

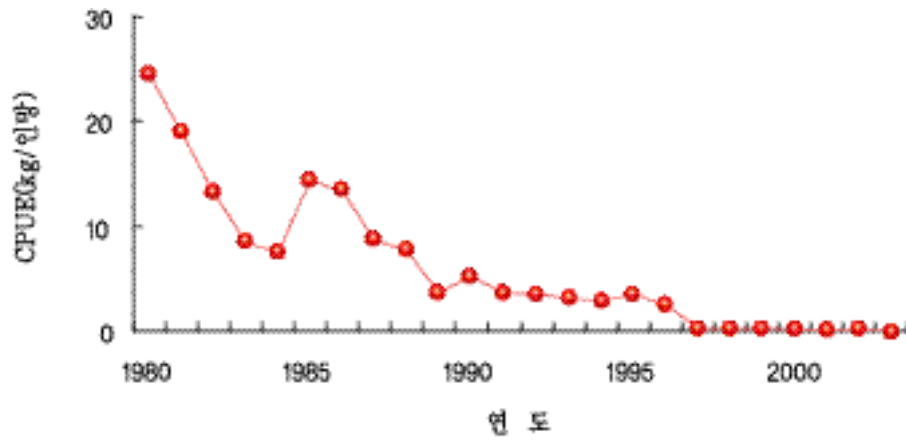


4-20.

'80 1 , '90 5
 , 80%
 , '80 20 30% '90
 5% , '80
 60% '90 80% 가



4-21.



4-22.

CPUE() '80

ABC 5

(CV=46%) '97 '03

7 7

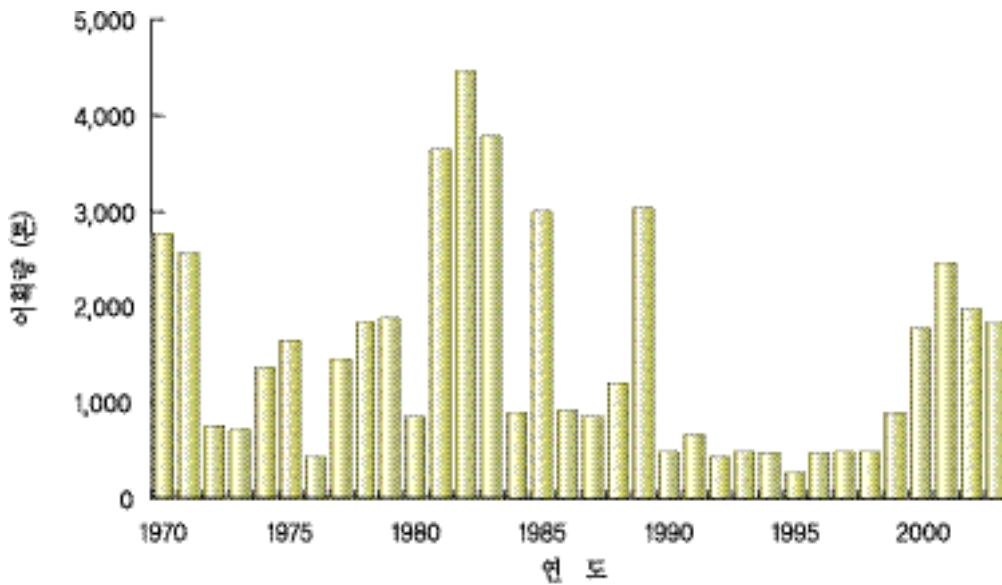
ABC 5 8

	ABC ()
YAM	580

9. (*Gadus macrocephalus*)

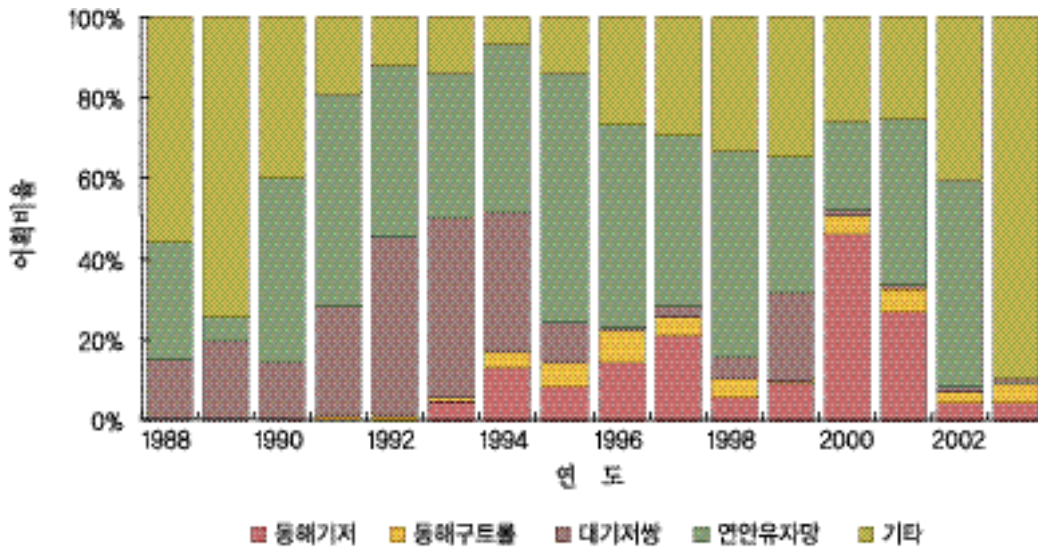
가.

12 3
 12 1 1 2 1 3
 가 50% 60cm()
 38cm() 4 150 250
 14
 , '90

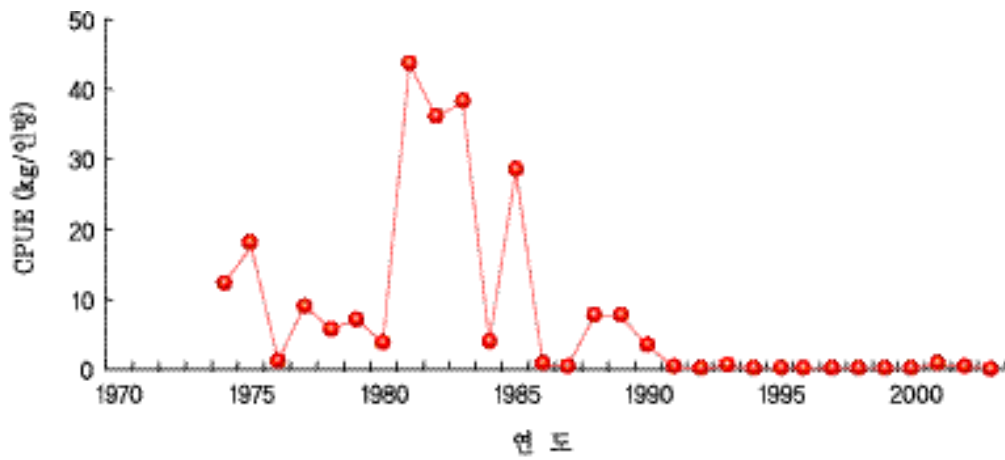


4-23.

, '82 4 4
 '90 4 . '99 가 2
 , '03 5%,
 4%, 1%,
 가



4-24.



4-25.

CPUE() , '81
, '80 '91

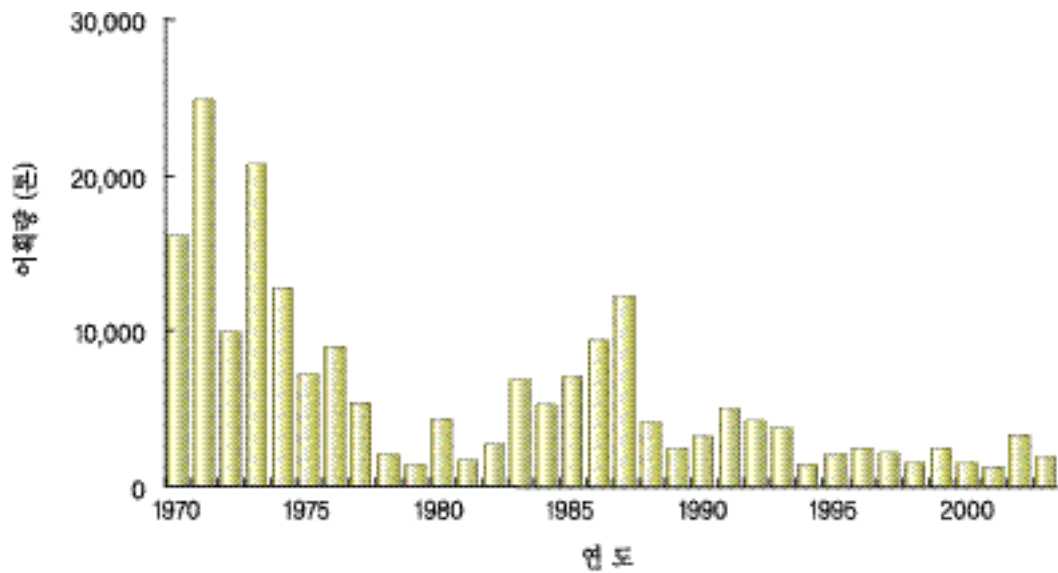
TAC ABC 4 5 . 5
(CV=31%) '00 '03
2 ABC 1 5 . 4
가 CPUE_{MSY} 20% 4b) , ABC 8

	ABC ()
MSY	800
YAM	1,500

10. (*Arctoscopus japonicus*)

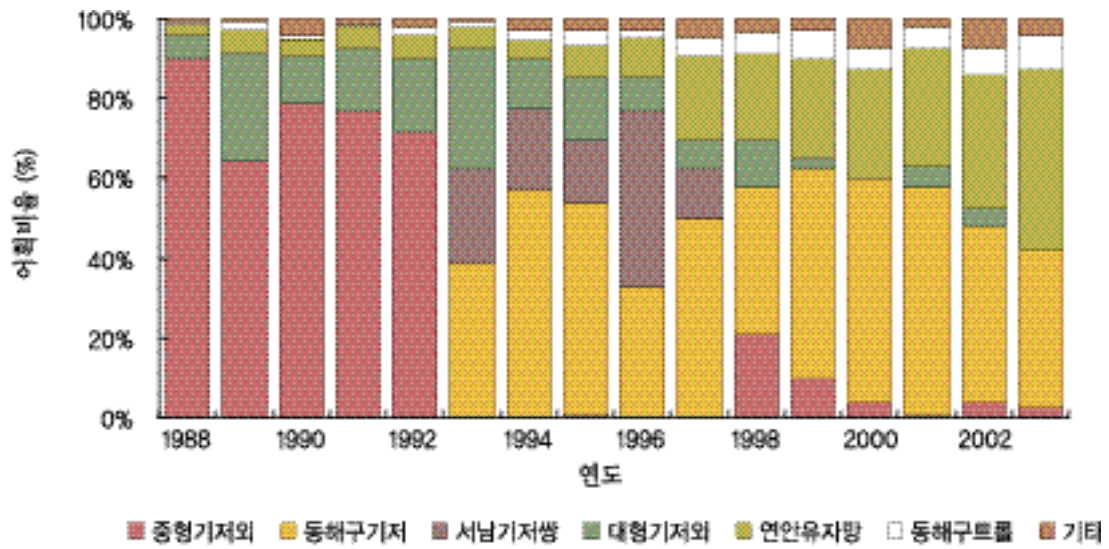
가.

6 8 100 150m , 가
 11 12 가
 50% 17cm(가) , 6
 25cm ,

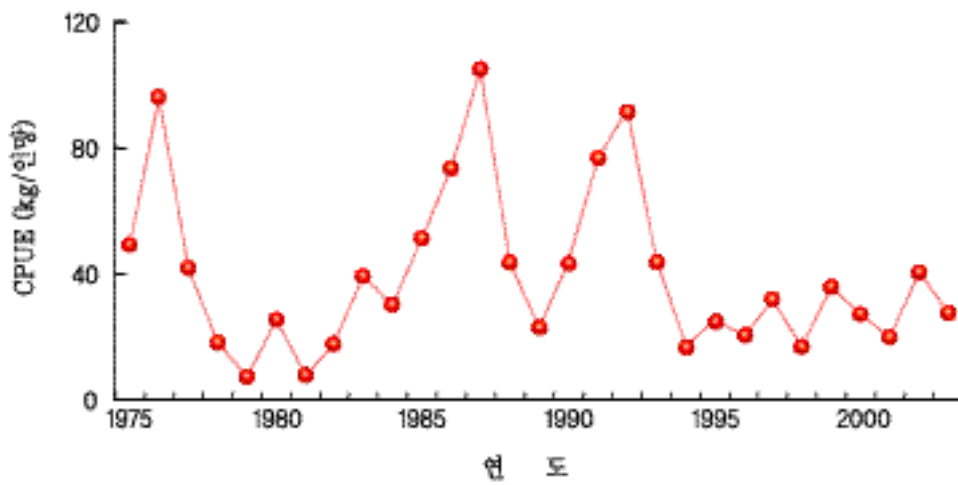


4-26.

, '71 2 5 , '70
 '79 1 4 , '80
 '87 1 2
 '80 , '03 1 9
 , '03 45%,
 39%, 8%, 3%
 가 ,



4-27.



4-28.

'80 '90
'94
'80
'90

5
(CV=31%) '95 '03

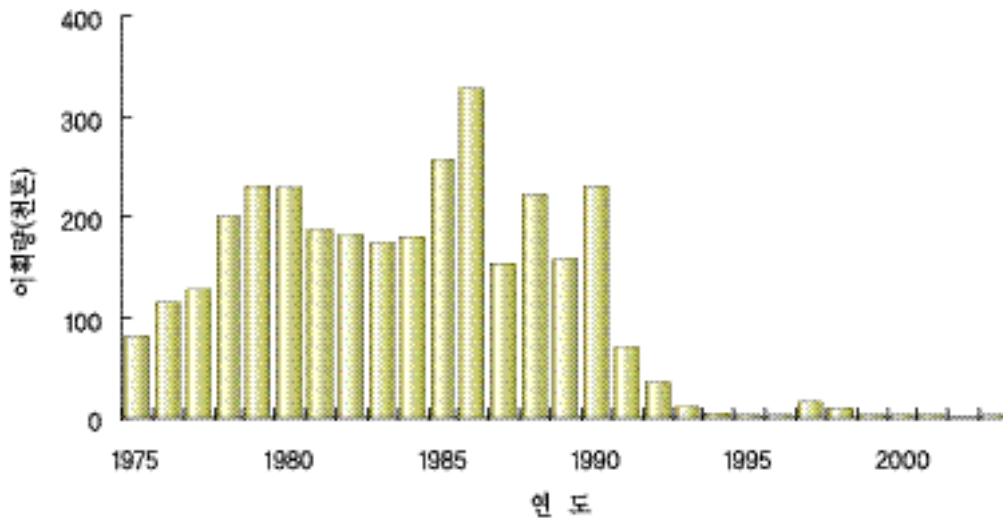
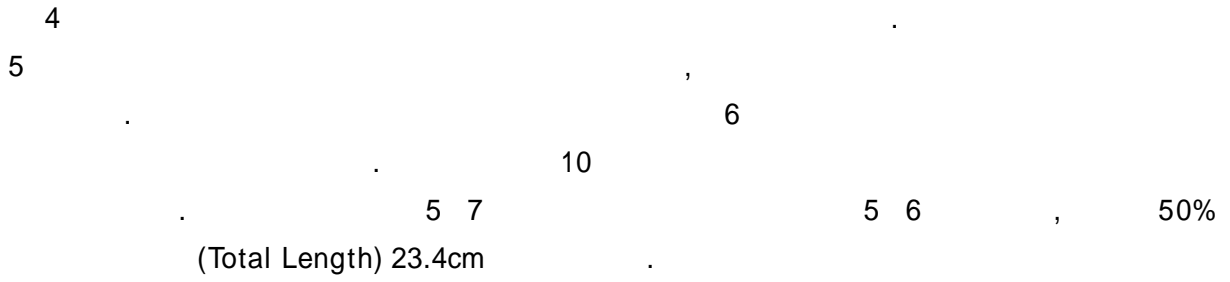
2 1

ABC 1 6

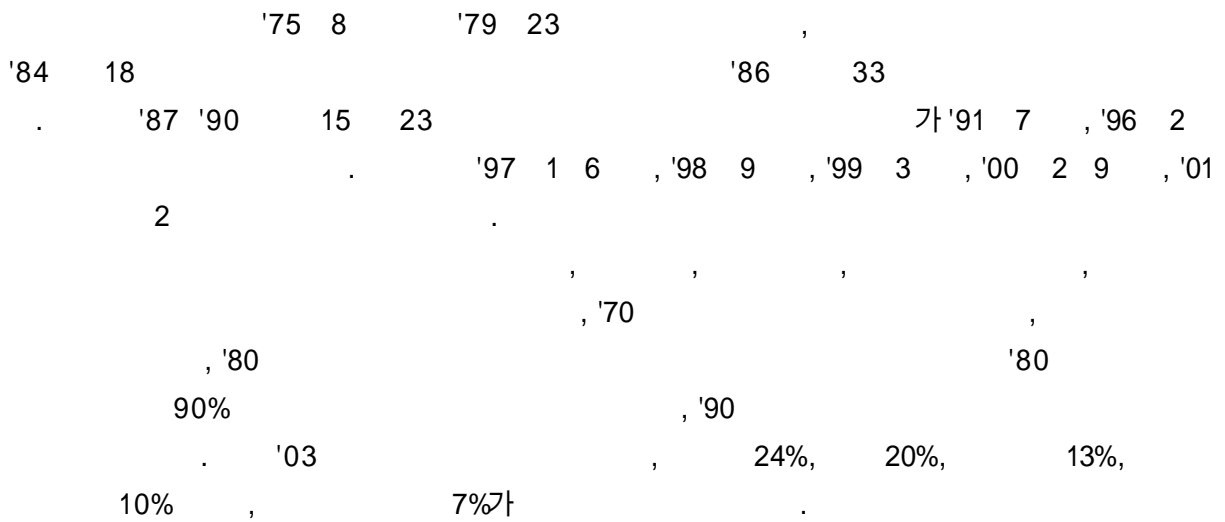
	ABC ()
YAM	1,600

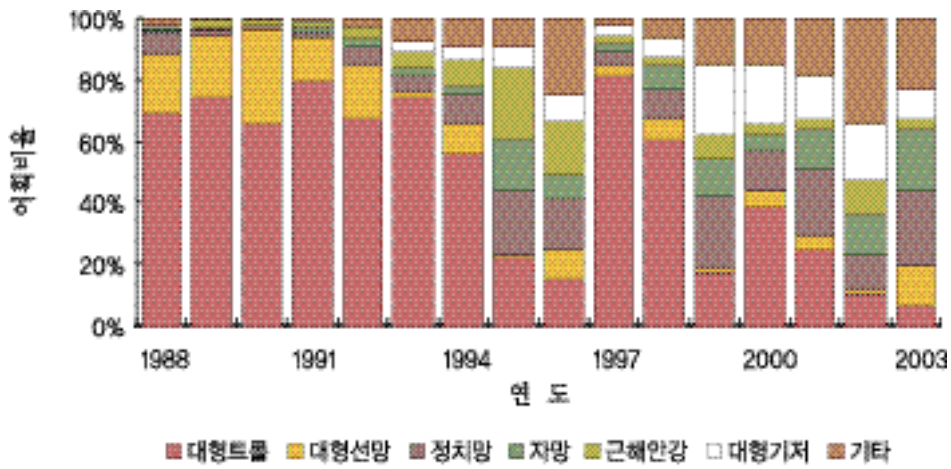
11. (*Thamnachous modestus*)

가.

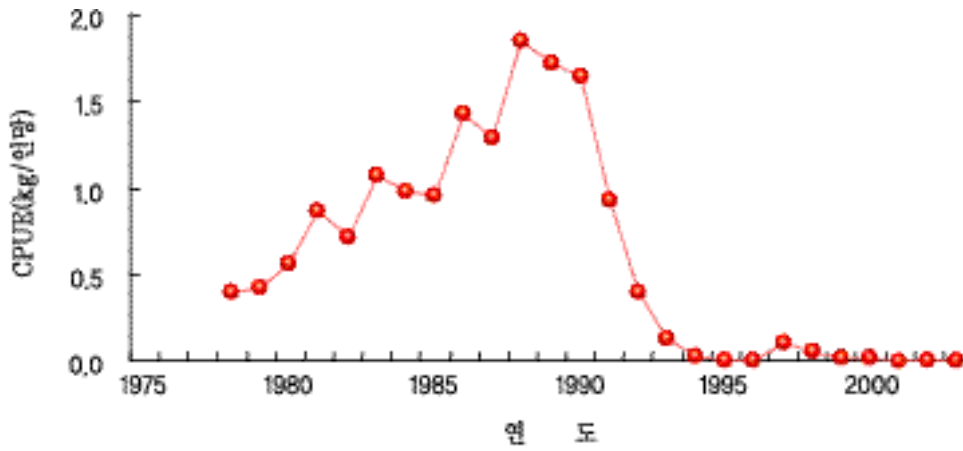


4-29.





4-30.



4-31.

가

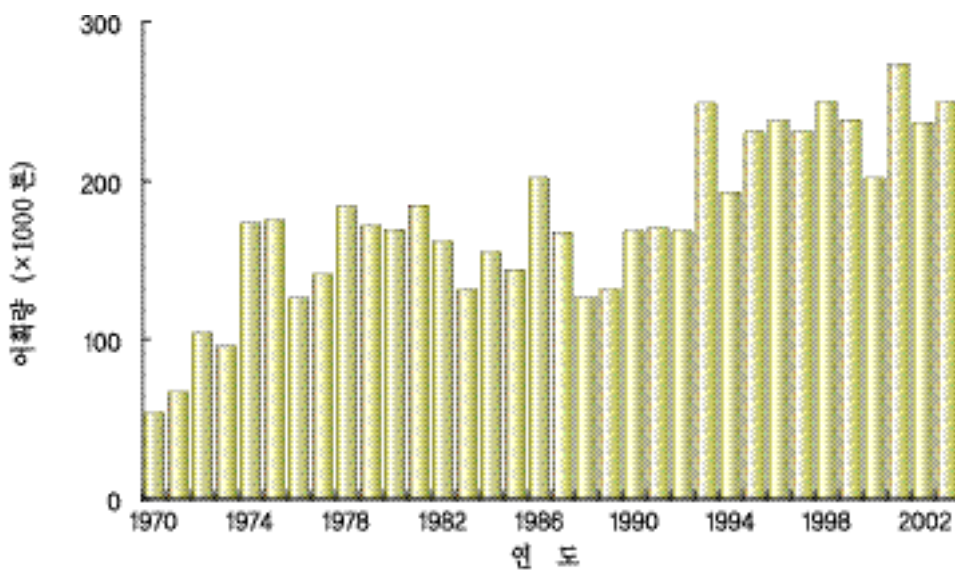
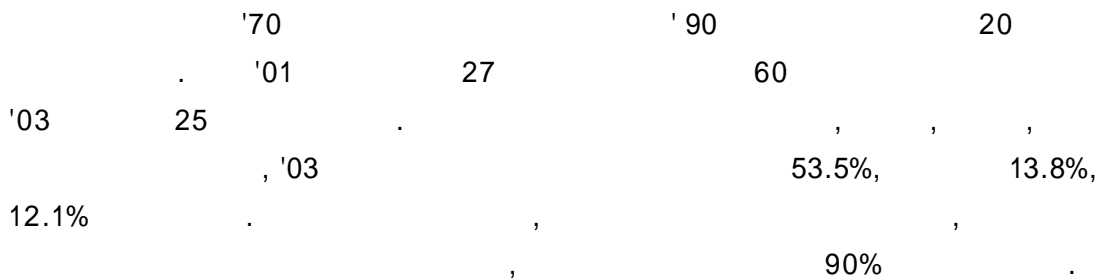
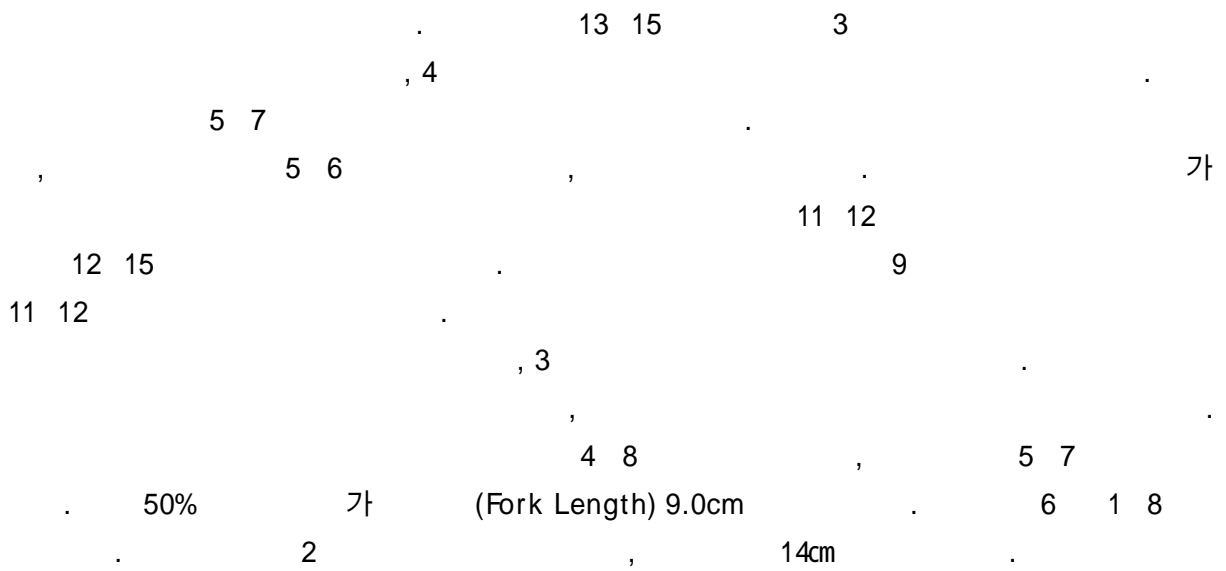
MSY CPUE , CPUE_{MSY} TAC ABC CPUE . ABC CPUE / CPUE_{MSY} < 0.05 4c)

가

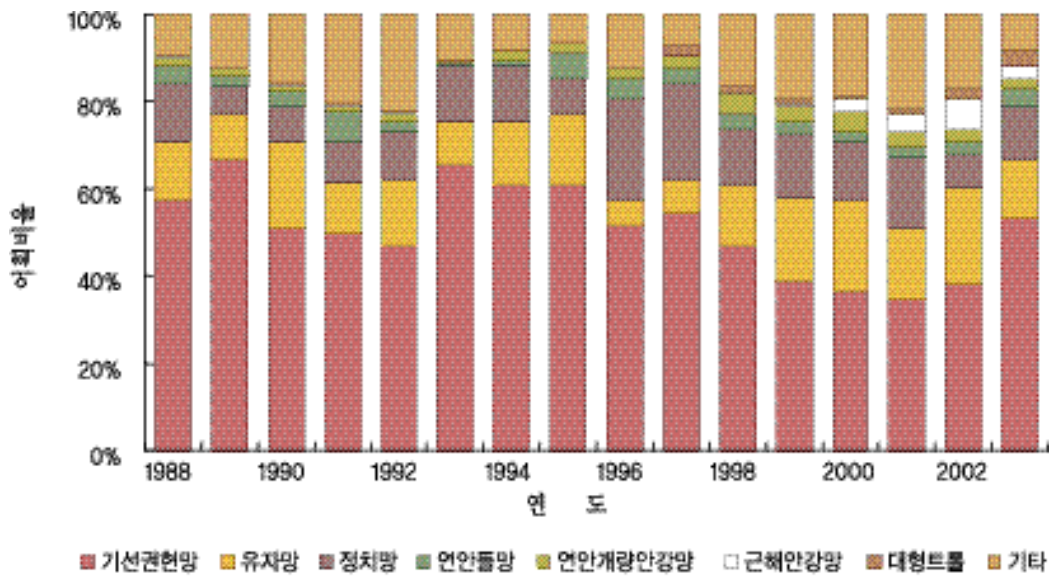
	ABC ()
Y _{AM}	-

12. (*Engraulis japonica*)

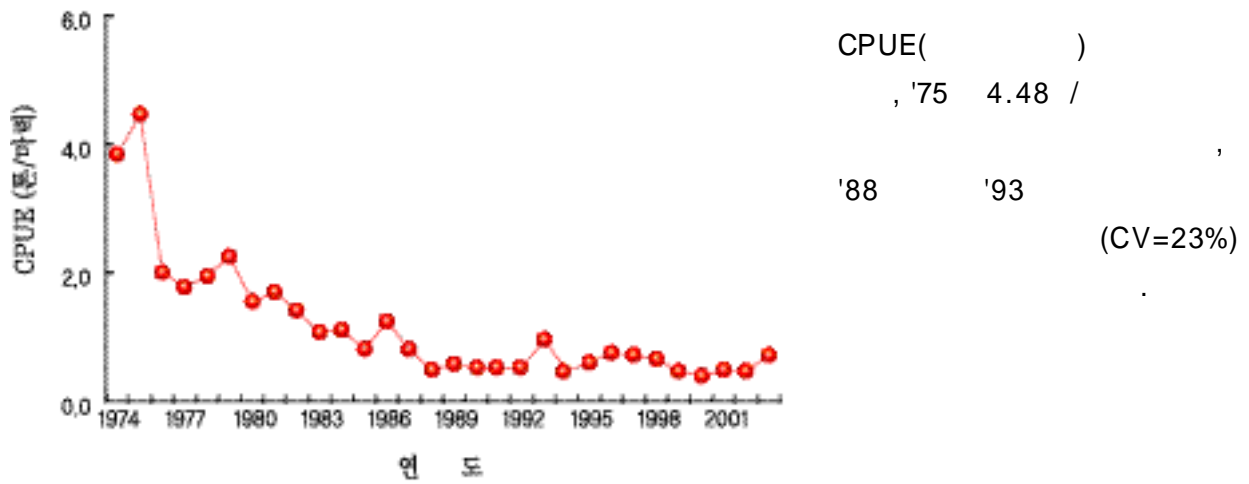
가.



4-32.



4-33.



4-34.

가 4 5 . 가 5

가 (CV=7.5%) '01 '03 25 3 , 4

CPUE_{MSY} 122% 4a)

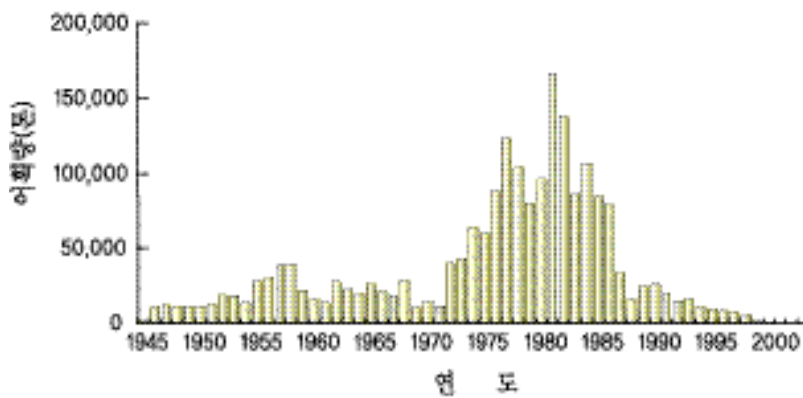
(ABC) 19 22

	ABC ()
MSY	222,000
YAM	190,000

13. (*Theragra chalcogramma*)

가.

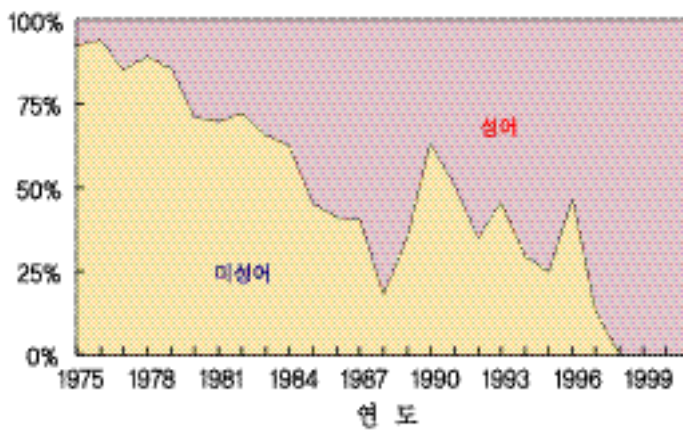
(35)
2
34cm(가) 10 50cm
12 2



4-35.

'03 242
(1 2)가 90%
'89 가 '90 가 63%
'97 가 12%
'72 4 가
'77 12
가 '81 17
'80
'90
1
'70
'87 40%, '88 18%

가



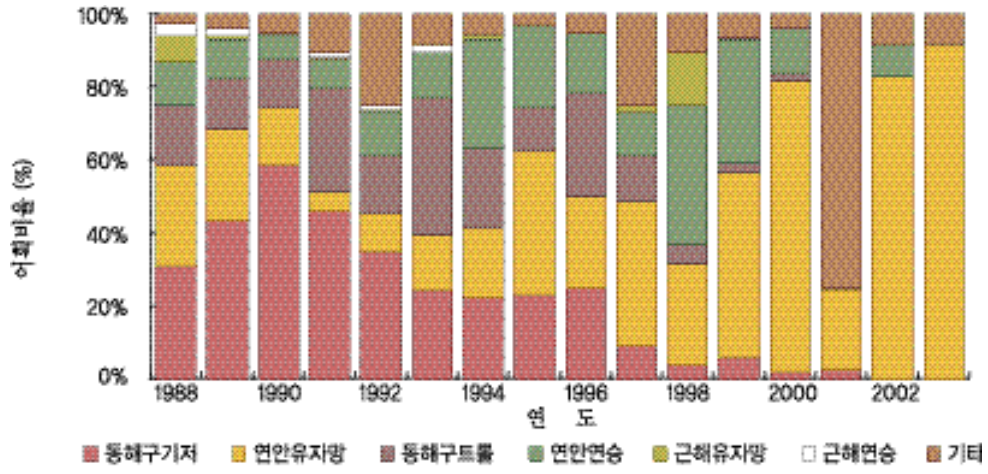
4-36.

가

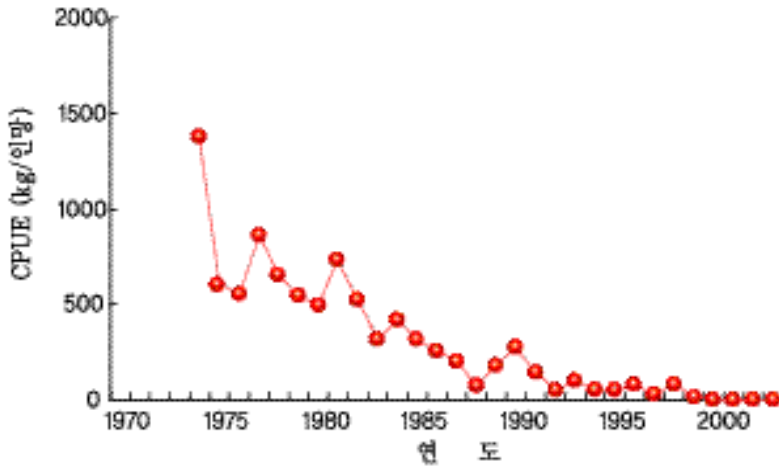
가

92%

'03



4-37.



4-38.

'81 60% '90
'81 5 6%

TAC
가 CPUE_{MSY} 0.4% 4c)
가

ABC 4

가

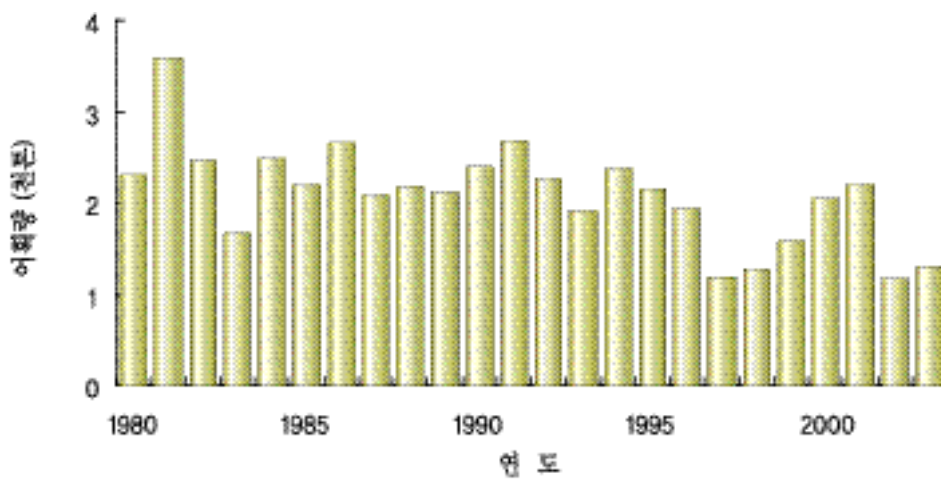
가

	ABC ()
MSY	-

14. (*Miichthys miui*)

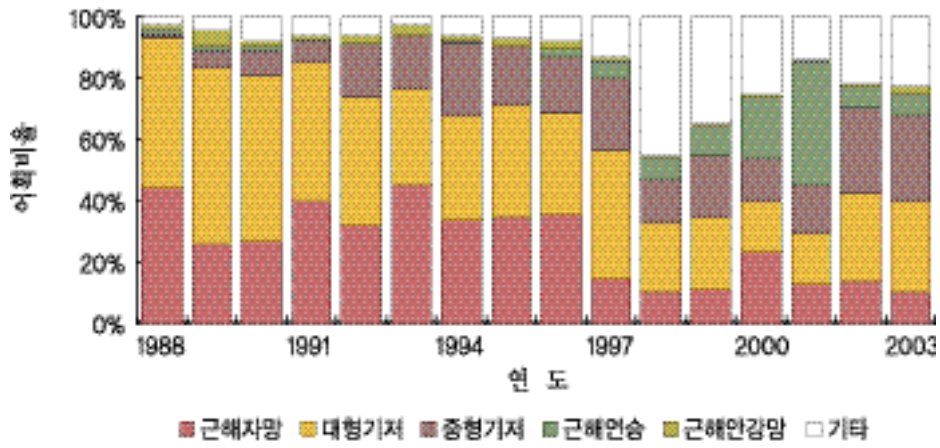
가.

7 9 , 舟山群島 5 6 , 7 8 ,
 9 10 가 () 50cm
 3.5 , 72 2160 5 80m
 13 , , , , , , , , , , , , ,

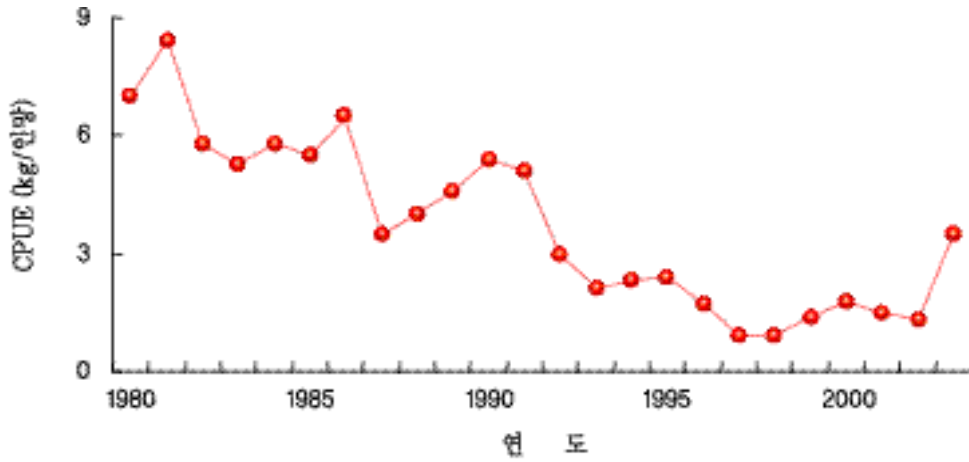


4-39.

'81 3 5 '90 2 3
 2 .90 80
 '02 1 1 , '03 1 3 . 11 1
 , '90
 80 90% 30 40%
 , '90 가 40 50%
 50 60%



4-40.



4-41.

CPUE() '80
, '90 10 55% , '00 '90 20% . 3kg/

가 5 ,
(CV=27%) '97 '03

1 5 ,

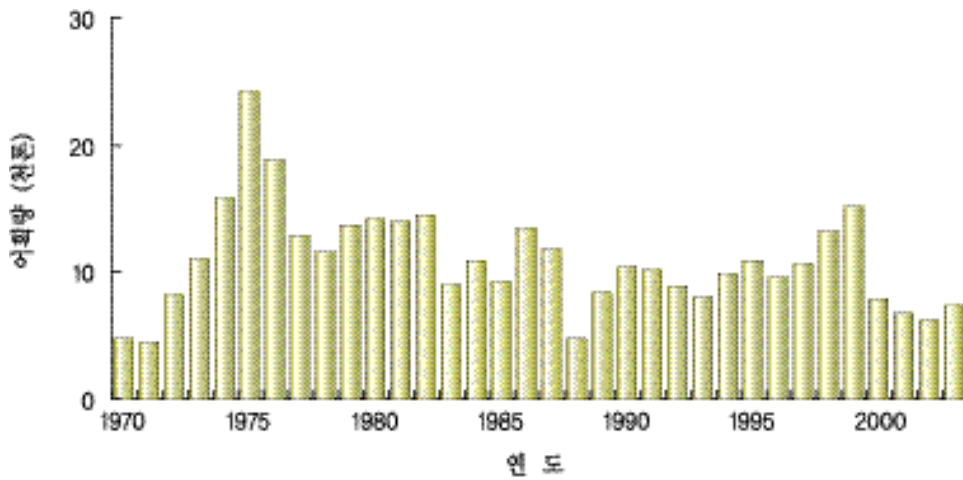
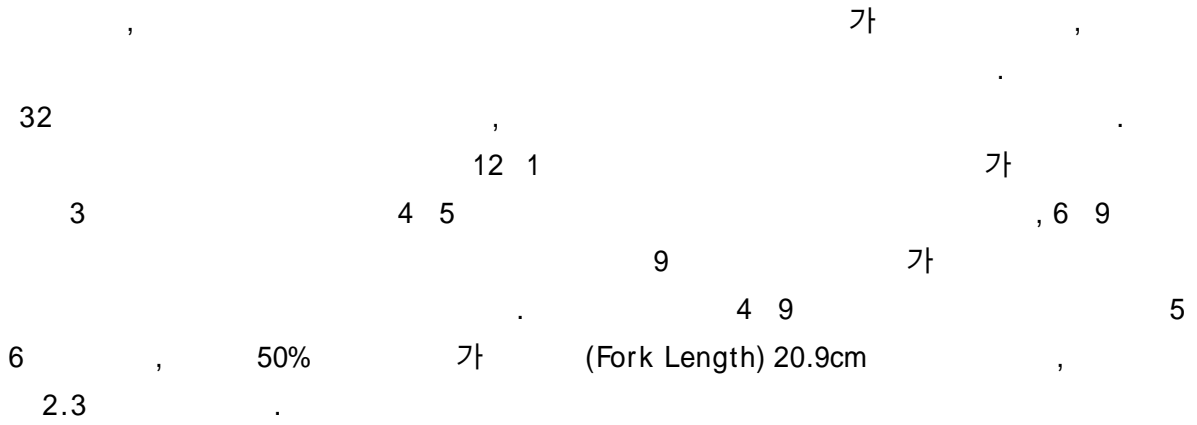
가 (ABC)

1 1 .

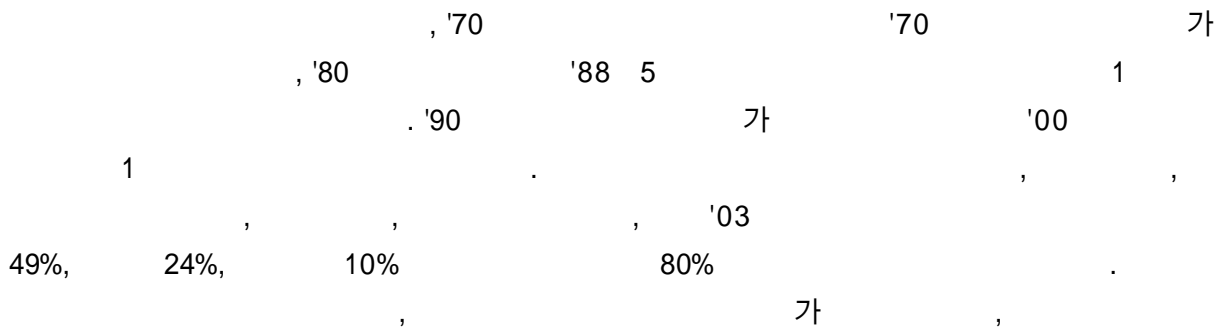
	ABC ()
YAM	1,100

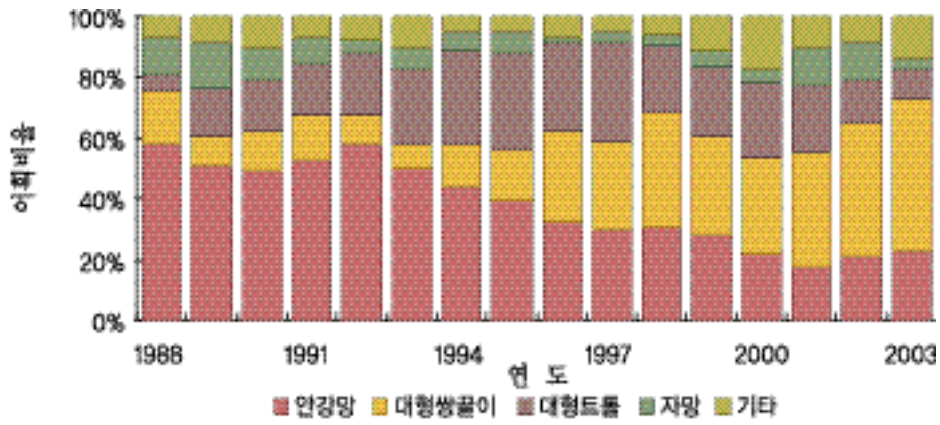
15. (, *Pampus spp.*)

가.

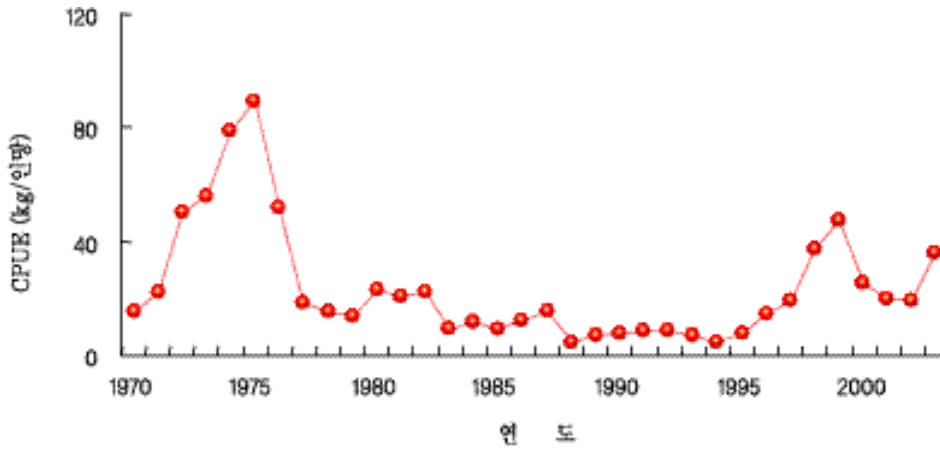


4-42.





4-43.



4-44.

CPUE() , '70 가
 '75
 '90 . '90 가 '99
 '00

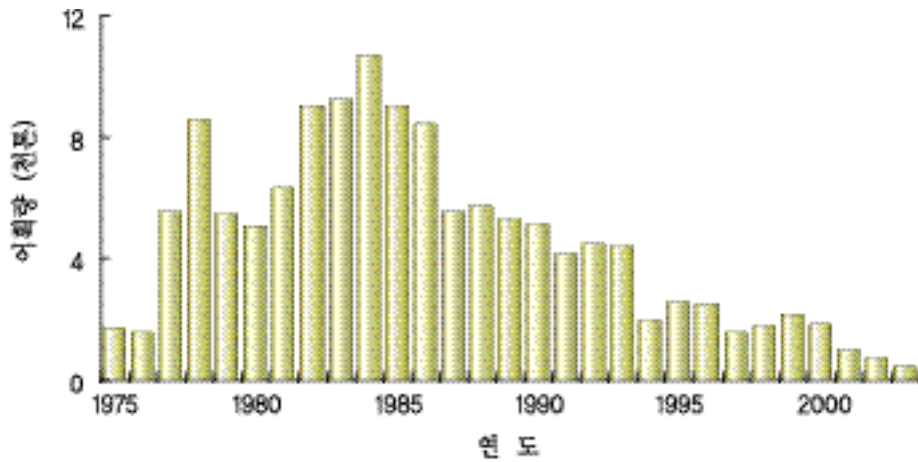
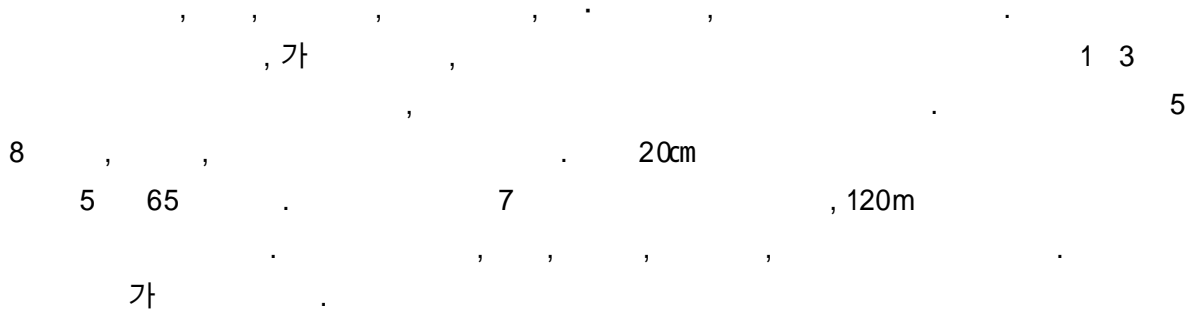
가 5 ,
 가 (CV=15%) '01 '03 가
 6 8

(ABC) 5

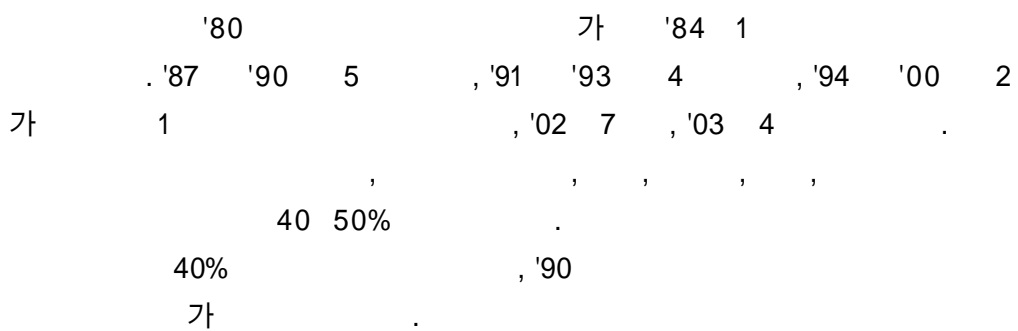
	ABC ()
YAM	5,000

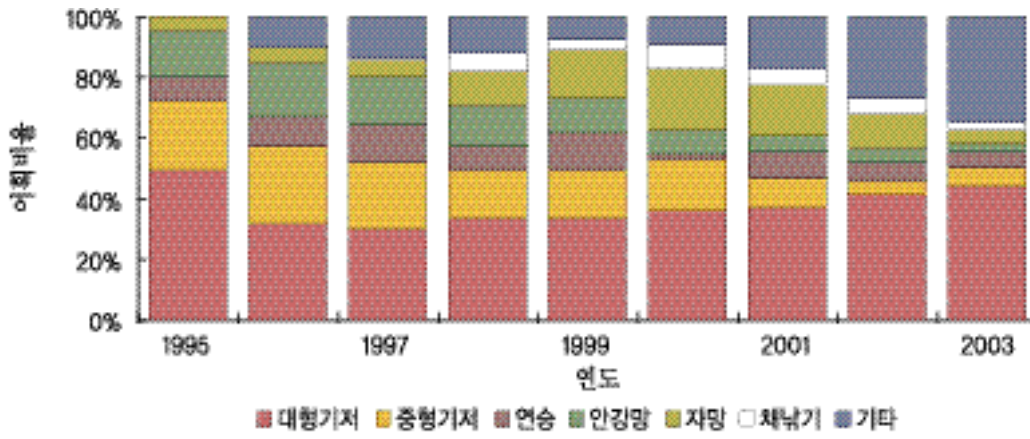
16. (*Argyrosomus argentatus*)

가.

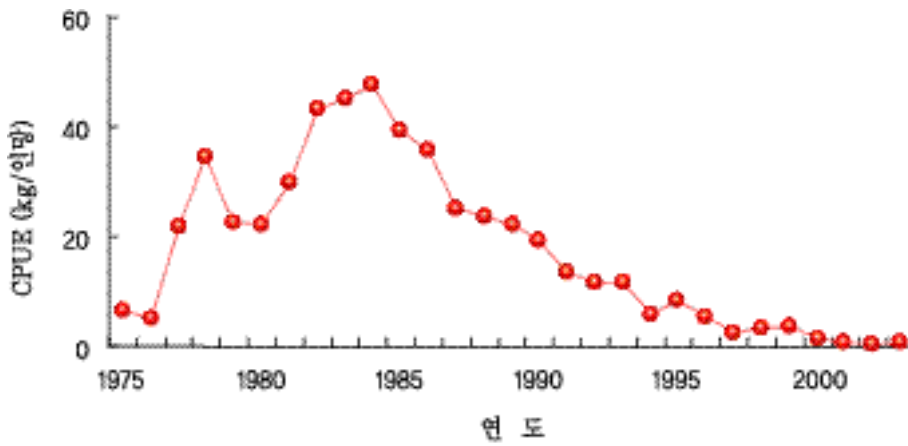


4-45.





4-46.



4-47.

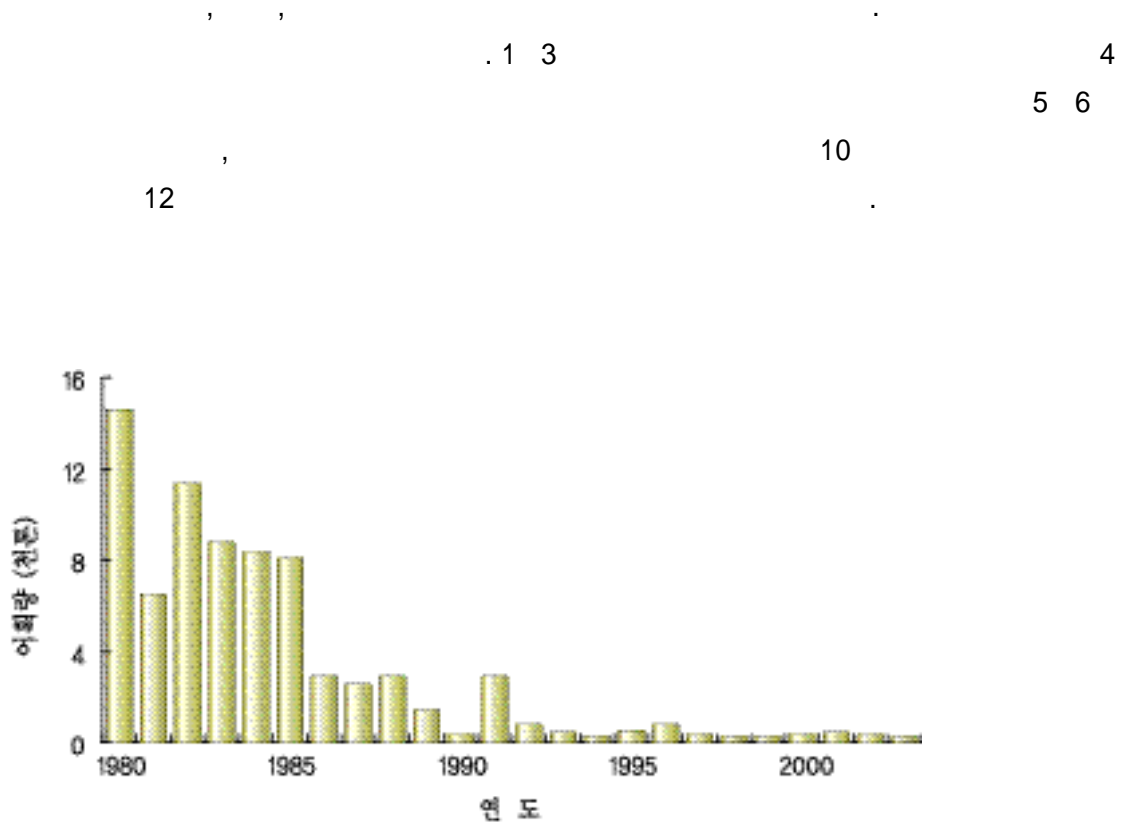
CPUE() '80 가 '82
 '84 40kg/ '01
 1kg/

가 TAC ABC 4 ,
 CPUE ABC 4
 (MSY) MSY CPUE , CPUE_{MSY}
 CPUE/CPUE_{MSY}=0.06 ABC 4b)
 (ABC) 30 ,
 , CPUE/CPUE_{MSY}<0.05 가
 가

	ABC ()
MSY	30

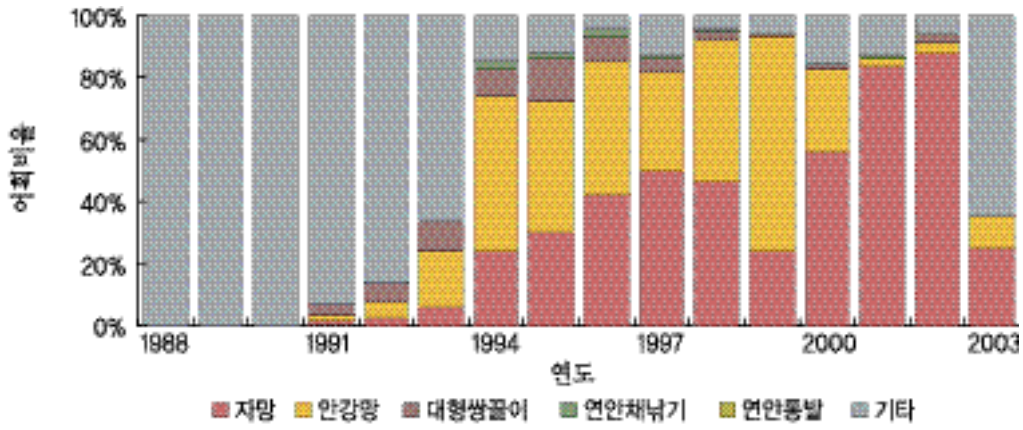
17. (*Pseudosciaena crocea*)

가.

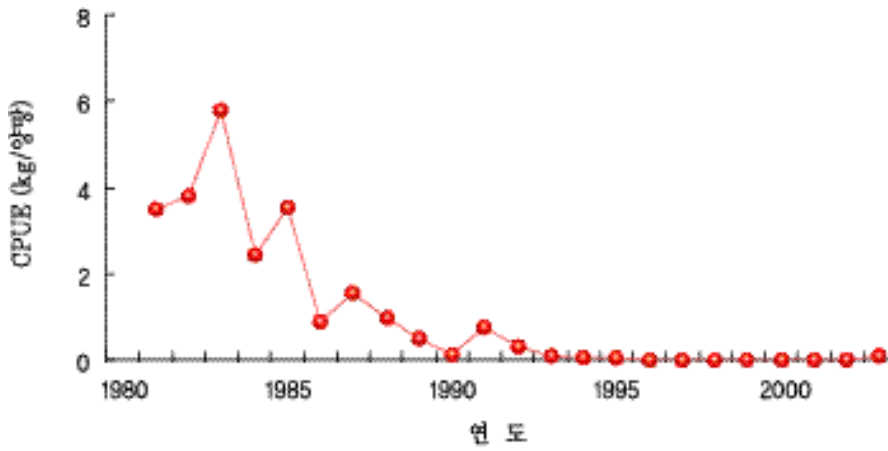


4-48.

'80 '80 1 5 '85 8
'03 220 5
'02
88%, 2%
'99
'00 '01 50 80%



4-49.



4-50.

CPUE() , '80
, '90

'96

가 TAC ABC 4 ,
CPUE . ABC 4
(MSY) MSY CPUE , CPUE_{MSY} CPUE/CRUE_{MSY}=0.08
ABC 4b)
(ABC) 150 ,
가
CPUE/CRUE_{MSY}<0.05 가

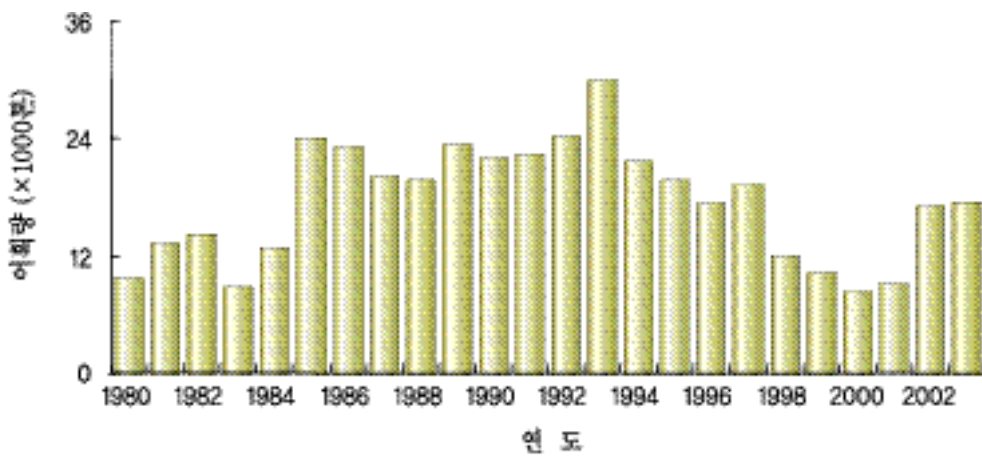
	ABC ()
MSY	150

18. (*Conger myriaster*)

가.

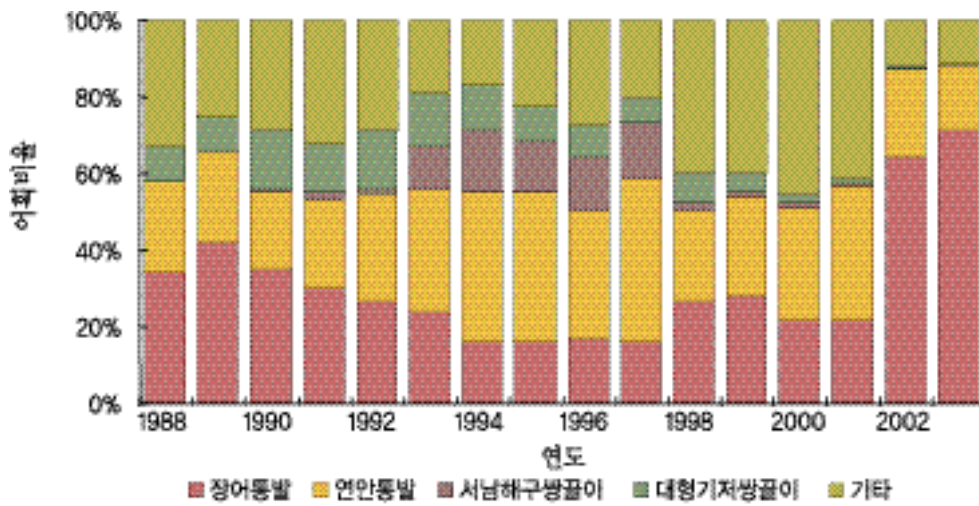
目 科 , 本州 ,
 .가
 4 6 .

가 , 가 ,
 95.1%, 4.9% .
 가2003 5 2004 2 8.81, 10.40 가1 2~5 가

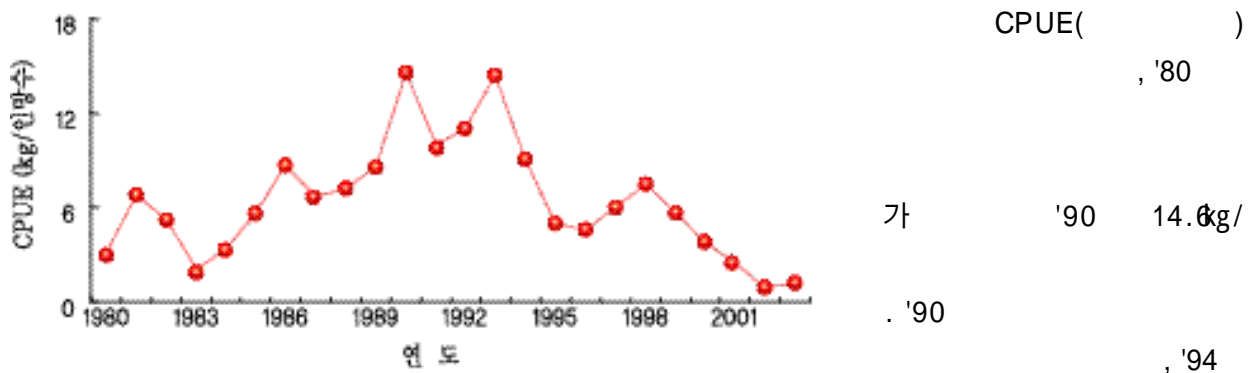


4-51.

'80 9 6 가 가'93 2 9
 가 '01 7 8 ,
 가 '02 '03 1 7 ,
 가 , 50% ,
 '02 '03 90% 가 ,
 '80 '00 10% ,
 '90 10%가 , 1% .



4-52.



4-53.

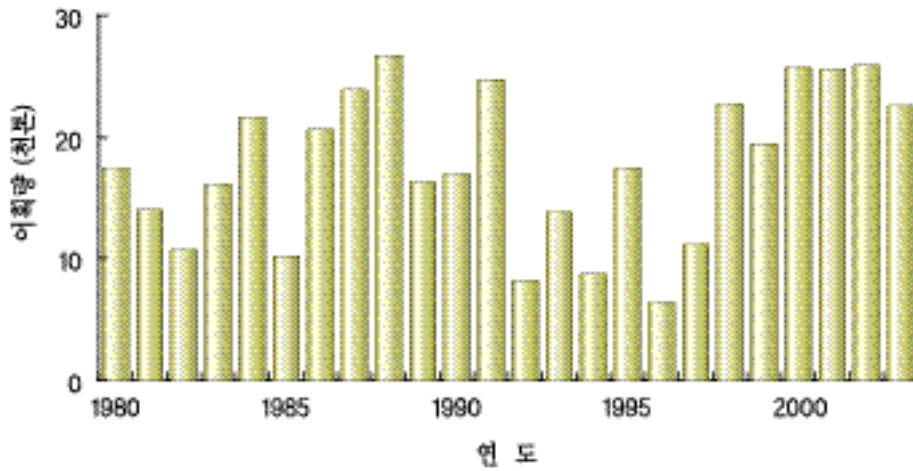
'03 1.2kg/ 가 , '02 CPUE
 '03 90% 가 , '02
 가
 '02 2 ABC 가 5
 (CV=1%) '02 '03 1 7
 (ABC) 1 3

	ABC ()
YAM	13,000

19. (*Scomberomorus niphonius*)

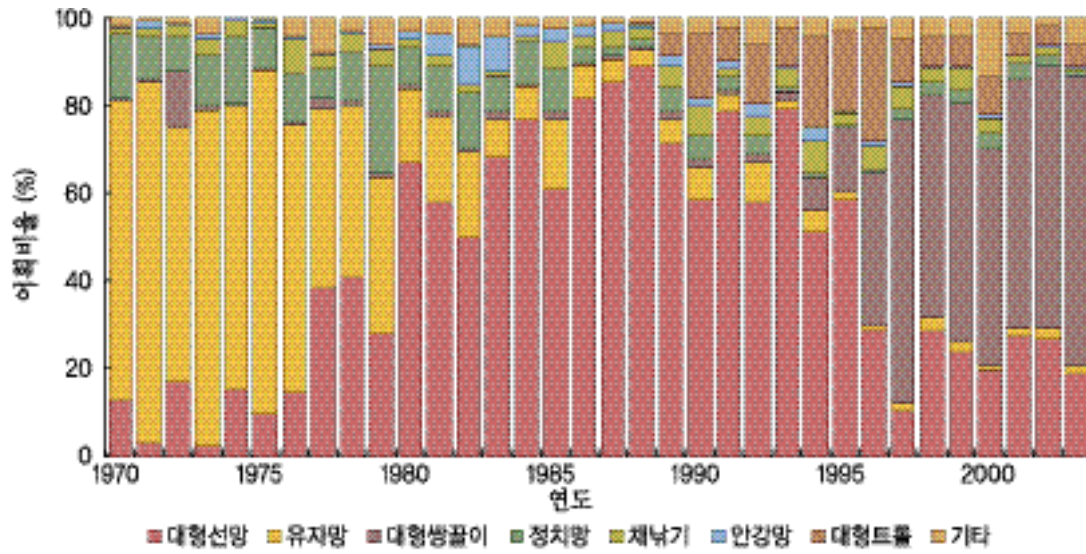
가.

3 4
 , 5 7 가
 8 , 9 10
 11 , 10 11
 , 1
 4 7 5 6 50% 가 (Fork
 Length) 58.6cm

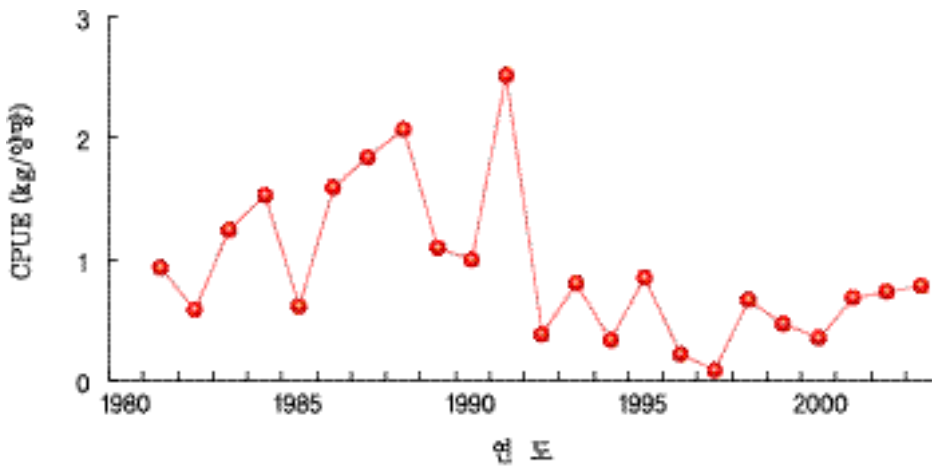


4-54.

'88 2 7 가 , 가 '96 6
 가 '00 2 2
 , '70
 50% 가 '70
 50% '80 80%
 가 '90
 가 '03
 66% 가
 19%, 5.1%, 1.5%, 1.1%



4-55.



4-56.

(CPUE) , '80
 , '90 CPUE '91
 , '97 CPUE '80 , '98
 , '01

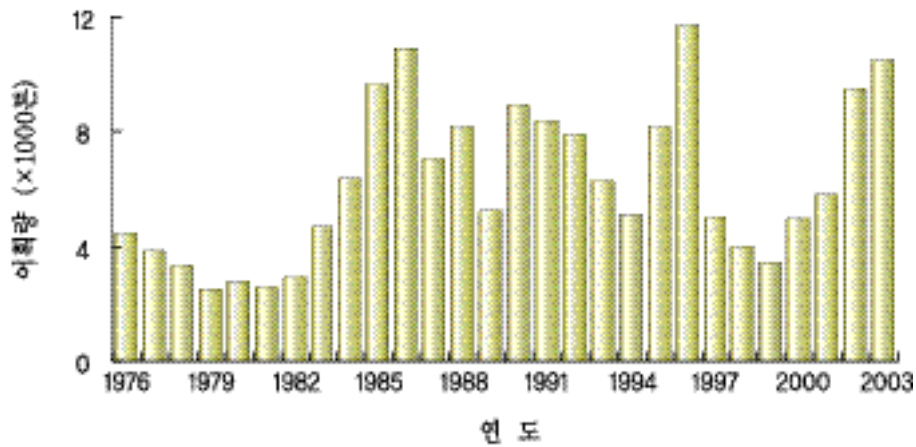
TAC ABC 4
 가 CPUE . ABC 4
 MSY CPUE , CPUE_{MSY} CPUE/CPUE_{MSY}=1.5 4a)
 ABC 2 2

	ABC ()
MSY	22,000

20. (Lophiidae spp.)

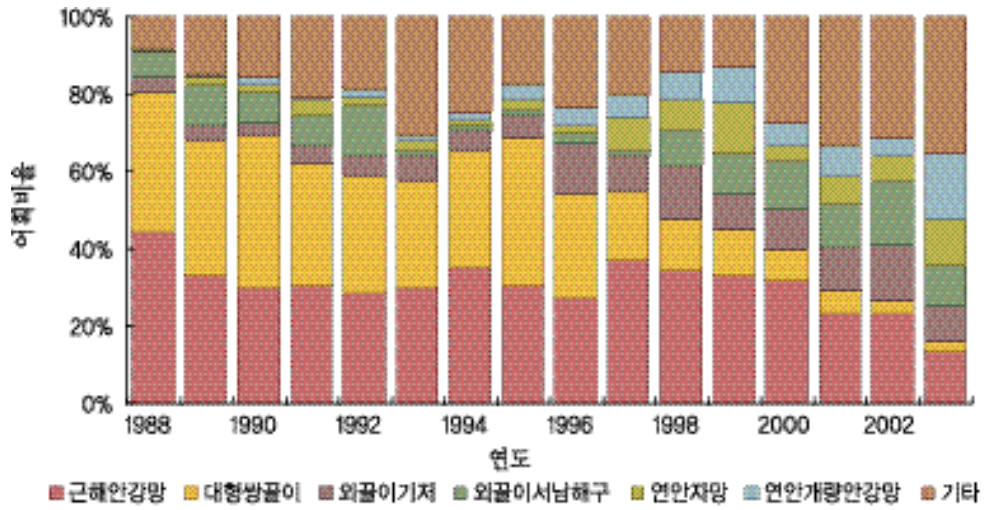
가.

속명 (Genus)	종명 (Species)	목 (Order)	과 (Family)
<i>litulon</i>	<i>(Lophiomus setigerus)</i>		<i>(Lophius</i>
95%	8, 5	가	
50%	1,874,560 (TL 90.25cm), (Total Length) 48.5cm,	1 5	2 4
3.5, 2.5	가	36.4cm	

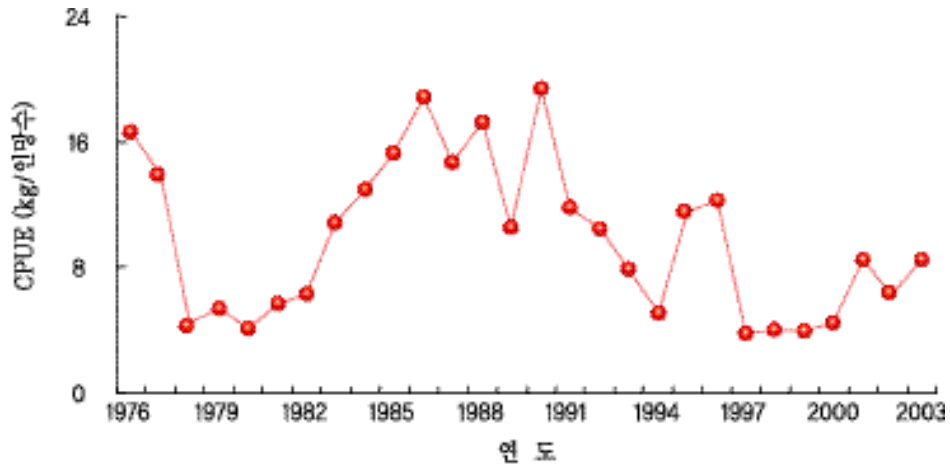


4-57.

'76 4 4 가 '80 가 '86
 1 '96 1 2 '03
 1 '99 가 '03
 '00 30 40%가
 15% 가 '88 '96 30 40%
 '03 3%
 10 15% 가



4-58.



4-59.

CPUE() '76 16.6kg/
 '80 19.4kg/ 가
 5kg/ 가 '90
 , '03 8.5kg/

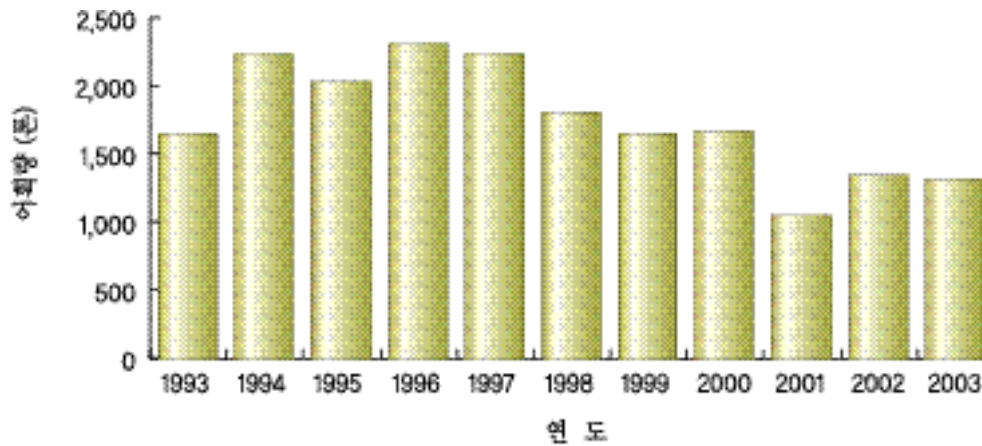
ABC 4 5 . ABC
 가 가 5 가
 (CV=7.0%) 2002 2003 9 9 ABC 7 5
 , ABC 4 CPUE_{MSY} 129% 4a)
 , ABC 6 9

	ABC ()
MSY	6,900
YAM	7,500

21. (*Branchiostegus* spp.)

가.

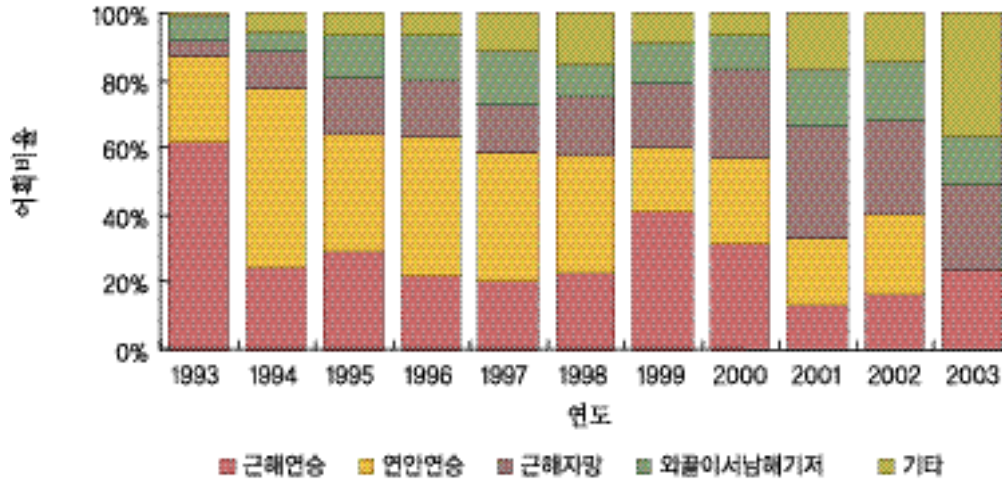
目科, 本州, 10 11, 6 11, 9 12 (11), 18 22, 19cm 2, 30 150m, 7, 32cm, 0.80mm, 12 22, 3 6, ()



4-60.

'88 가 '92 2 1
, '93 1 6 . '94 '96 2 1 2 2
'97 2 , '03 1 3
'88 "
" 가 가 가
1 가 .

'85 '87 5 6 , '88 3
 2
 31 30 27
 7 9 10 6
 2 5



4-61.

5 가 ,
 2 , '92 2 2 '98 1 , 8
 '92 1 8 '97 10
 3 4 , '92 '94 1 1
 5 , '95 1 , '98

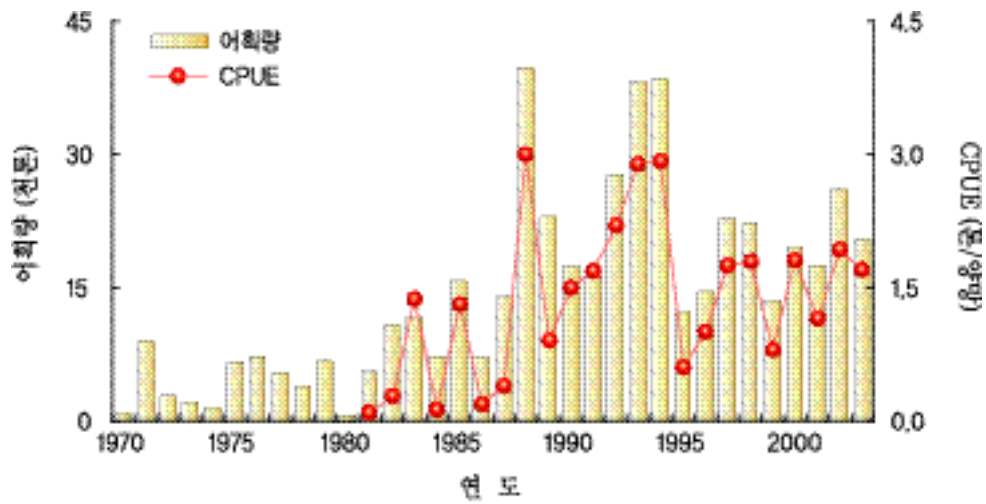
TAC ABC 5
 (CV=19%) '99 '03 1 4
 ABC 1 1

	ABC ()
YAM	1,100

22. *(Trachurus japonicus)*

가.

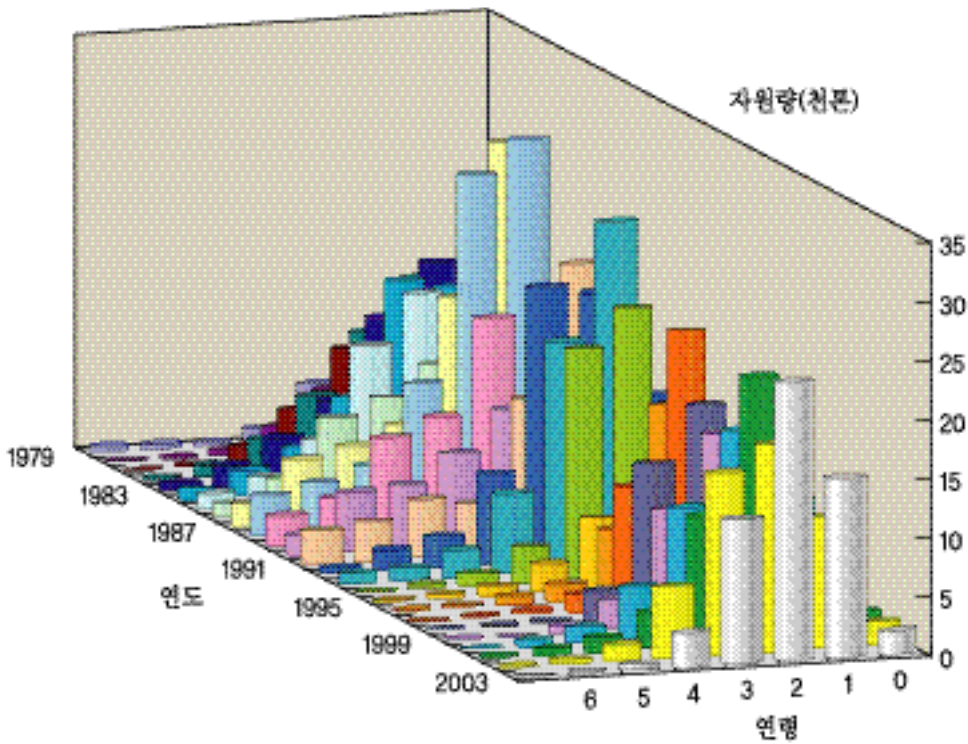
4 . 9 10 , 5 6 , 11 , 3
 5 6 , 가 10 120m
 3 7 3 5 ,
 627,061 (FL 40.6cm), 33,493 (FL 27.0cm) , 50%
 가 (Fork Length) 24.8cm , 2.7 .



4-62.

'80 1 , '88 4 '70
 '90 가
 '98 2 , '02 2 6
 , '03 79% .
 60 70%가 , , ,
 '02 73%, '03 66%가 .

CPUE() '80 가 '88
 '93 3 / . VPA
 '94 2 , 1 가 '99
 '02 2 가 '90
 가 , '03 , 가 .



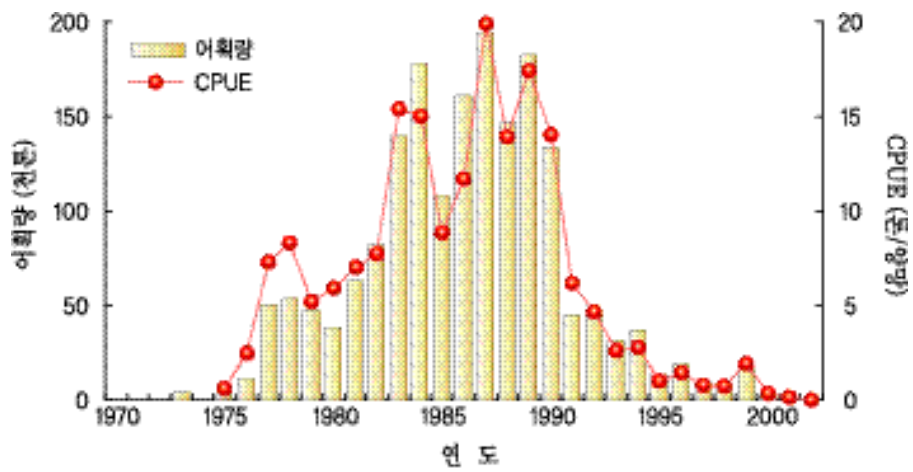
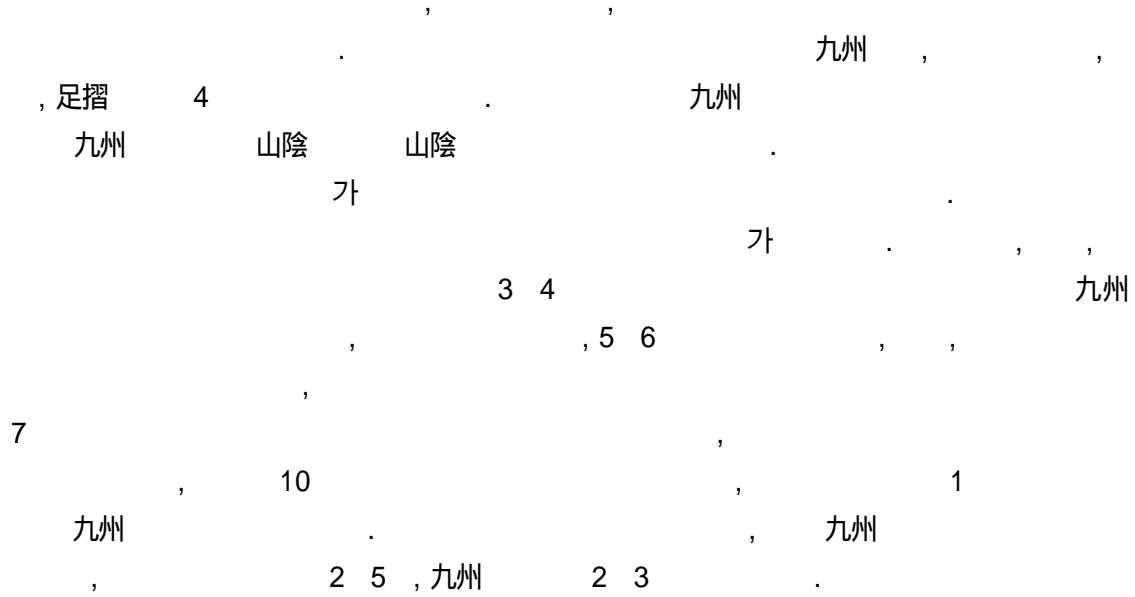
4-63.

TAC ABC 2
 가 (B) 4 8 , (M) 0.60/
 $F_{40\%} 0.44/$, $B_{40\%} 6 5$
 $B/B_{40\%} 0.74 1$, ABC 2b)
 $F_{ABC} 0.32/$ '03
 1 1
 6 8

	ABC ()	F_{ABC} ()
$F_{40\%}$	10,100	0.32
()	(6,800)	

23. (*Sardinops melanostictus*)

가.



4-64.

가 140 '37 10
'70
'70
'87 19 '70 '90

'02 8 . '03 97% '03 18 , 12 2 89%가 4 '03

가 , 9

75 98%가



4-65.

CPUE() '87 20 /
 '95 2.0 / , '00
 0.3 / , '01 0.0 /

가

가

가

24. (*Pagrus major*)

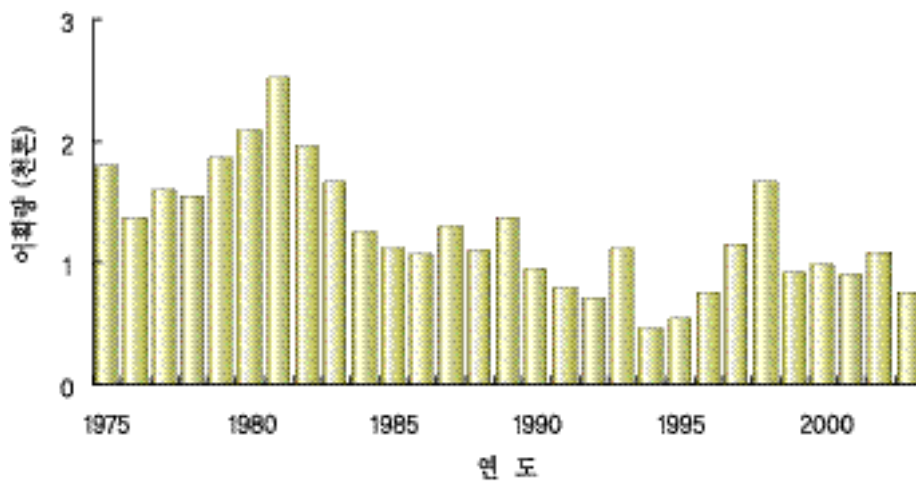
가.

가

15 17 , 26cm 3

100 150m , 20 , ,

가 .



4-66.

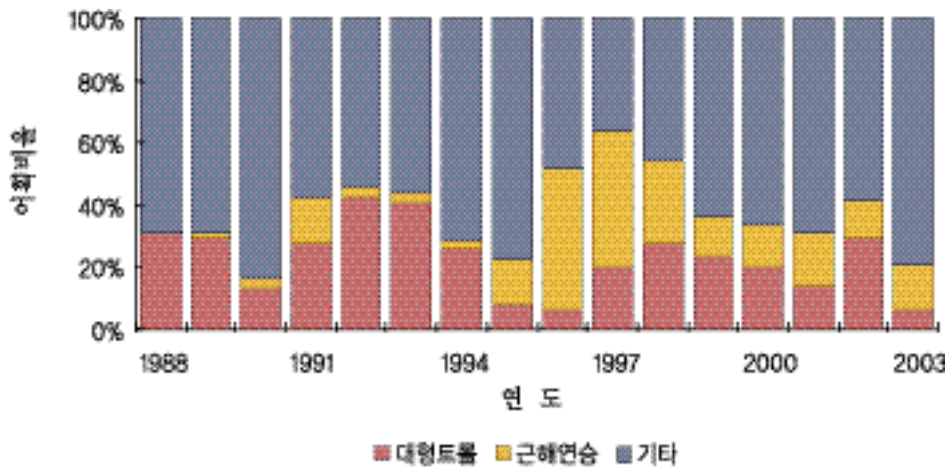
'81 2 5 '90 1

'98 1 6 1

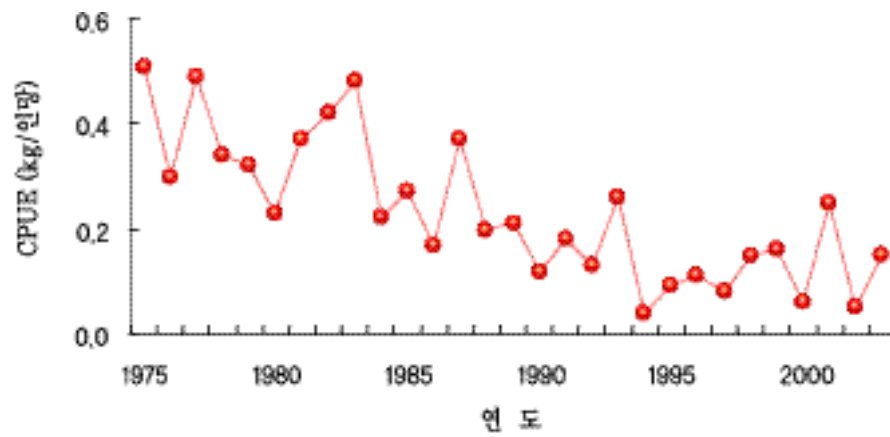
'90 30 40% 가 '90

20% '90 45%

가 15%



4-67.



4-68.

CPUE() '70
, '90 0.2kg/

가 5
(CV=13%) '99 '03
9

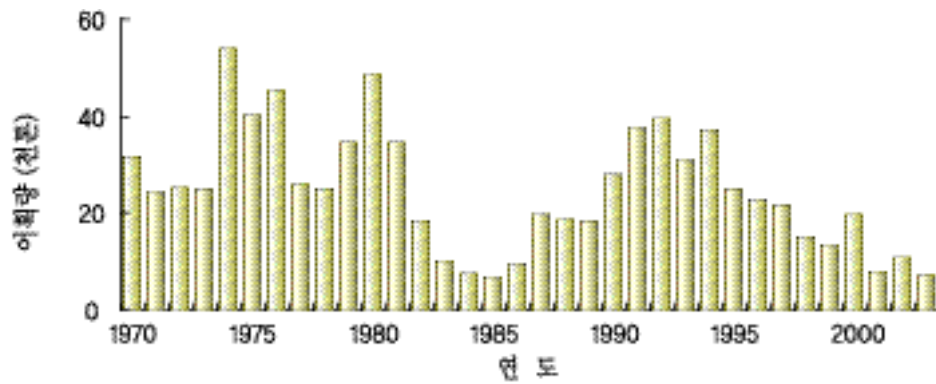
가
(ABC) 7

	ABC ()
YAM	700

25. (*Pseudosciaena polyactis*)

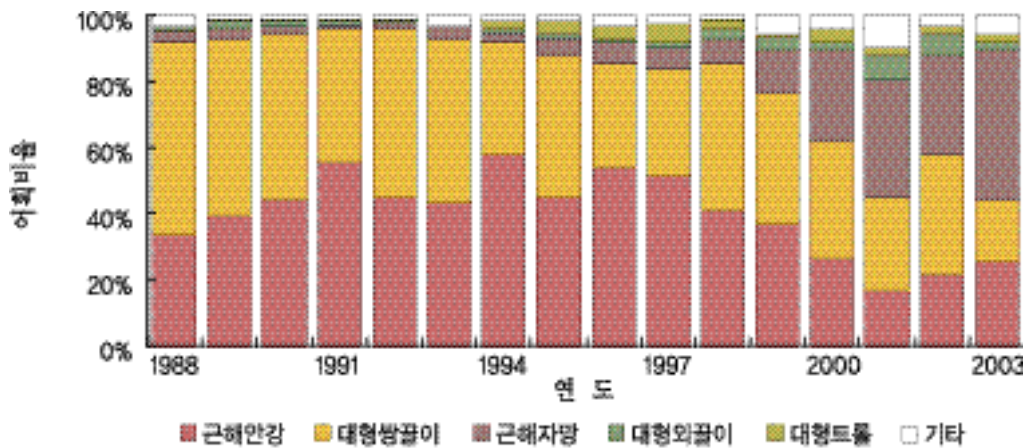
가.

4 , , , , 4
 , 12 2
 , 3 4
 4 , 5 6
 , 6
 , 가 10 11
 2 5 3 4 , 21.4 26.9cm
 10,022 84,134 , 50% (Total Length) 18.9cm
 , 1.5

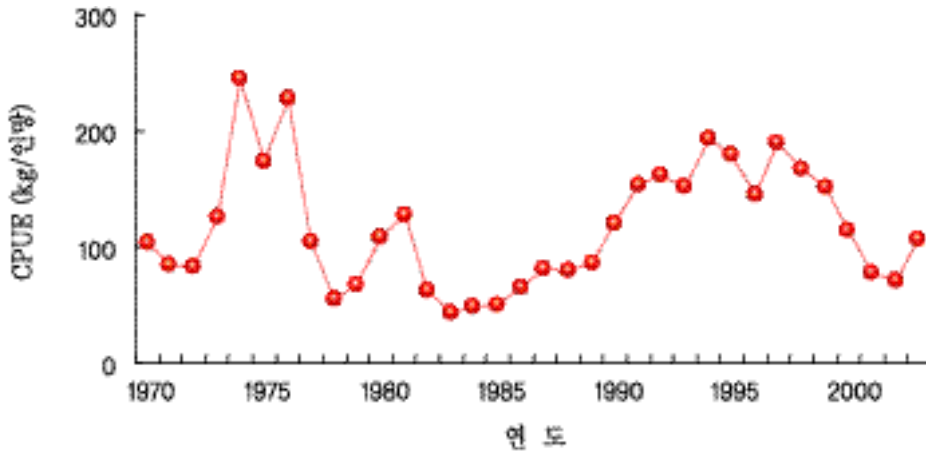


4-69.

'80 1 가 가
 '92 4 , '01 8 , '02 1 1 ,
 '03 7 ,



4-70.



4-71.

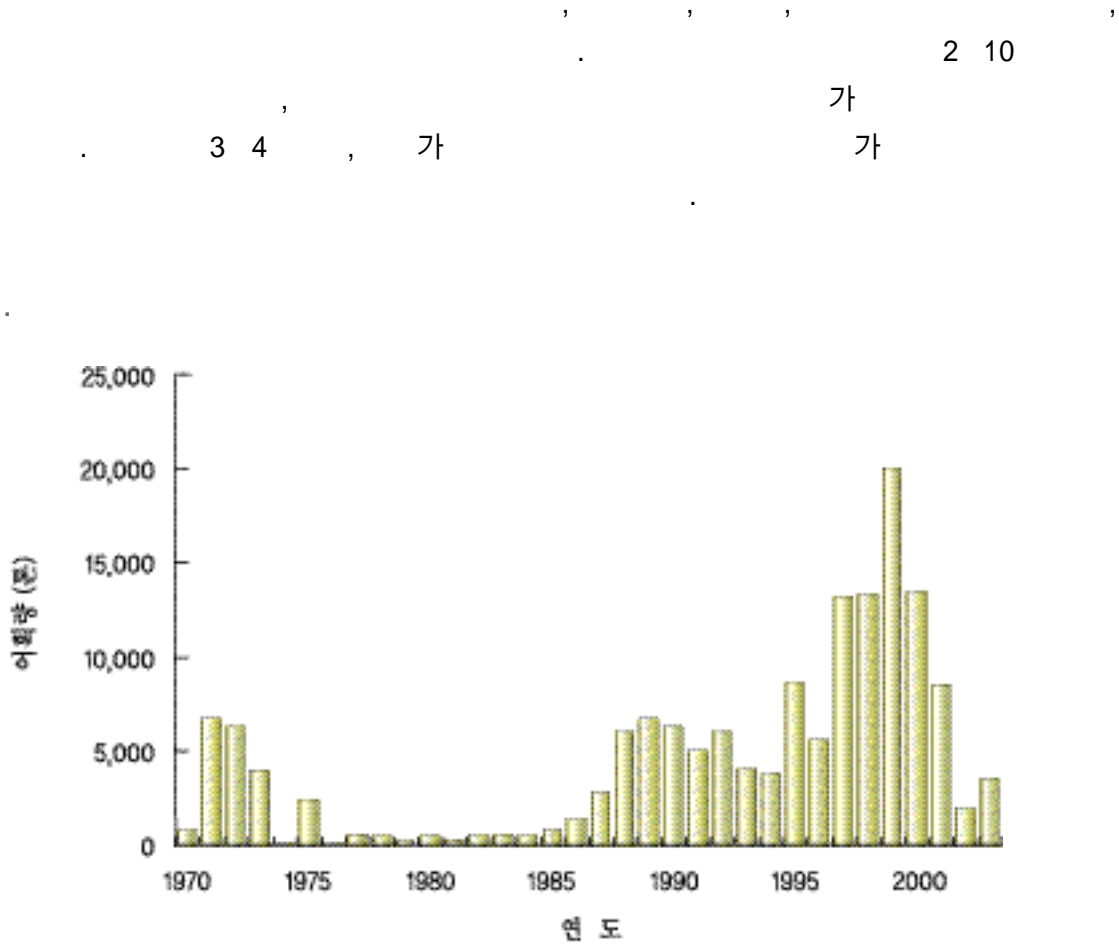
CPUE() '90
 CPUE '00
 '01 76% '69
 '79 10 '79 '90 0 3 4
 ,가
 가 '80 '90 가
 '91 가
 가
 '01 '02 가 '80 /가
 가 가

(CV=23%) '01 '03 '04 가
 8 7
 (ABC) 6 5

	ABC ()
YAM	6,500

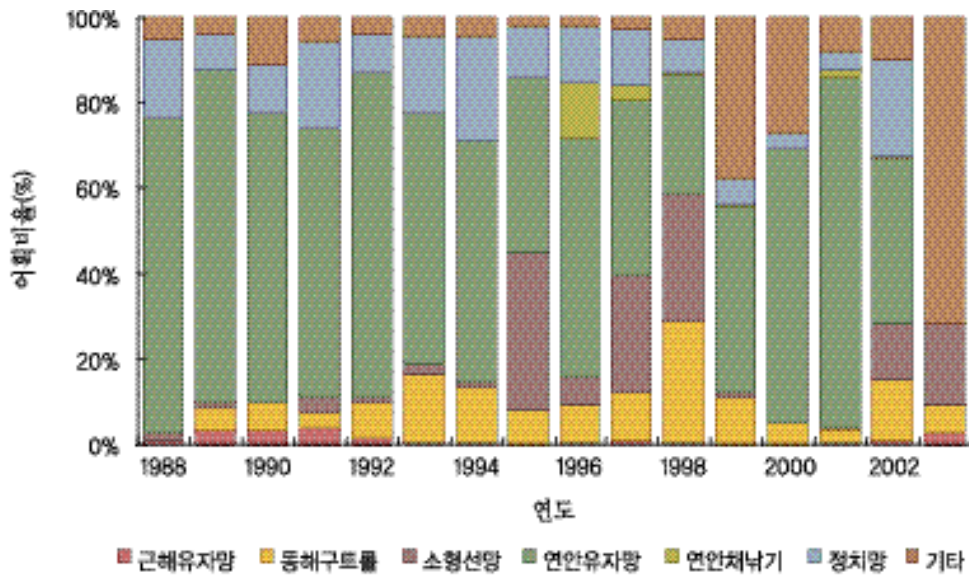
26. (*Clupea pallasii*)

가.

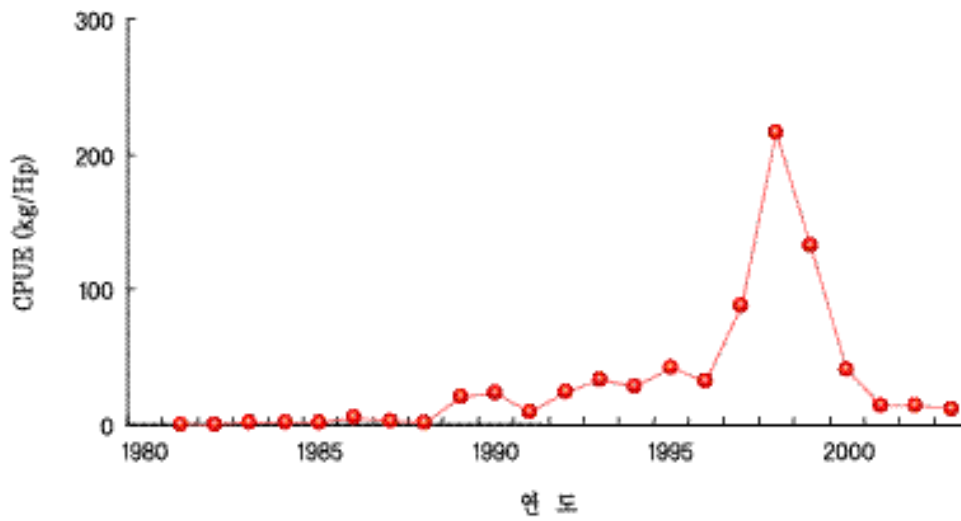


4-72.

'99 2 , '80 가 '90 '03 3 5 , '03 19%, 6%, 3%,



4-73.



4-74.

'98 , '90 가

TAC

ABC

5

'01 '03

ABC 3

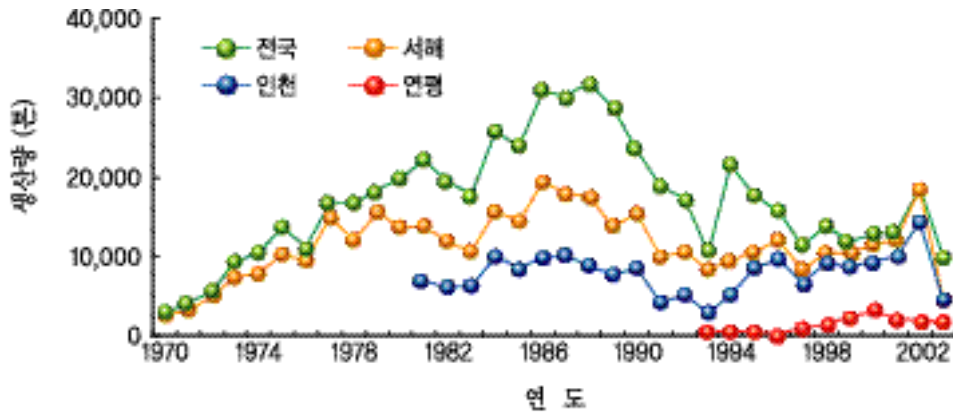
5

	ABC ()
YAM	3,500

27. (*Portunus trituberculatus*)

가.

, , ,
 ,
 4 30 (15 , 10) , 20 40m(25m
), 5 9 (6 7) . 11cm() 25cm,
 990g . 2 3 , , , .
 .
 700km² 1995 .
 61 5 10 , 2 3 .
 15 35 (20 , 15), 500 700m 4m(
 300m 3.8m)
 . 3 20 6 30 () 9 10 11 30 (가
) .
 .
 '88 3 2 , 5
 1 2 1 9 가'03 9 5 .
 '86 1 9 5 1 1 8
 가'03 4 4 , 5
 83%가 , '03 45%
 .
 '87 1
 '93 3 , 5 7 1 4
 가'03 4 '02 30% .
 '93 '97 1 가, '98 1 4 , '99 2 4 , '00 3 1
 '01 2 3 , '02 1 9 , '03 1 8
 . (3 2) '88 '90
 5 가 18 27%
 , 가 가 9 18 42%가
 . 가 가



4-75.

'95 , 14.8cm, 13.6cm
 '98 '03 11.6cm, 12.5cm, 12.9cm, 12.3cm,
 12.6cm, 12.4cm
 11.3cm, 12.8cm, 12.6cm, 12.4cm, 12.6cm, 12.5cm
 11cm '95 10% '98 42.5%, '99 18.0%, '00
 12.5% 가'01 '03 25%
 '00 가 가 가

가 TAC ABC 5 3
 (ABC) ('02 '03) (B) F_{0.1}, M
 1 9 , 7 8 , F_{0.1}
 1.42/ , M 1.40/ , F_{ABC}=1.42/
 (ABC) 9 ,
 2/3 6
 3 7
 2/3 2 4

	ABC()	F _{ABC} (⁻¹)
Y _{AM}	5,000 7,000	
F _{0.1}	6,000	1.42
Y _{AM}	1,500 2,200	
F _{0.1}	2,400	1.42
	840 1,560	

28. (*Chionoecetes opilio*)

가.

200 400m
m
(200 500m) 2 5 가

6 8 54.2mm, 58.8mm
6 8

2 2 3 2 3

77.4mm 10 98mm 16 1 1

가 1 1 1 가 3 8

10 19cm, 12cm 가

15 17

가

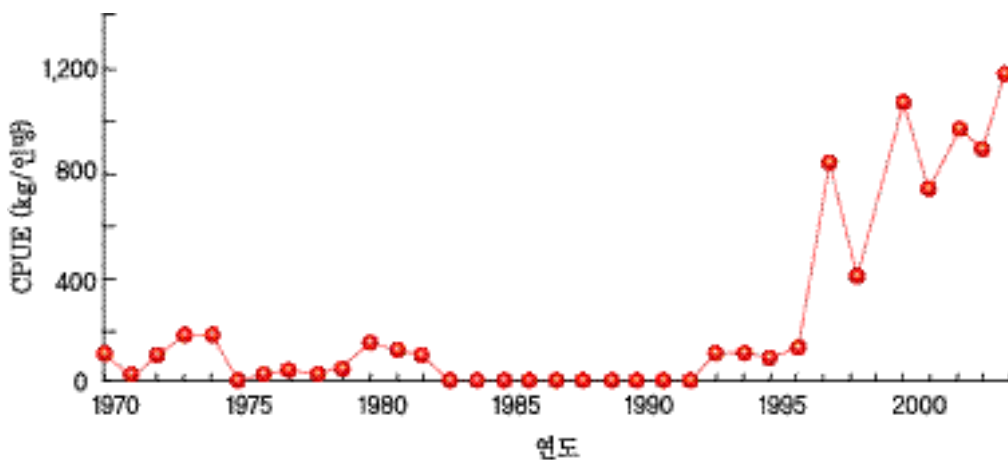
가 '96 '96 2

가 가 '97 8 , '98 5 , '99 1 1

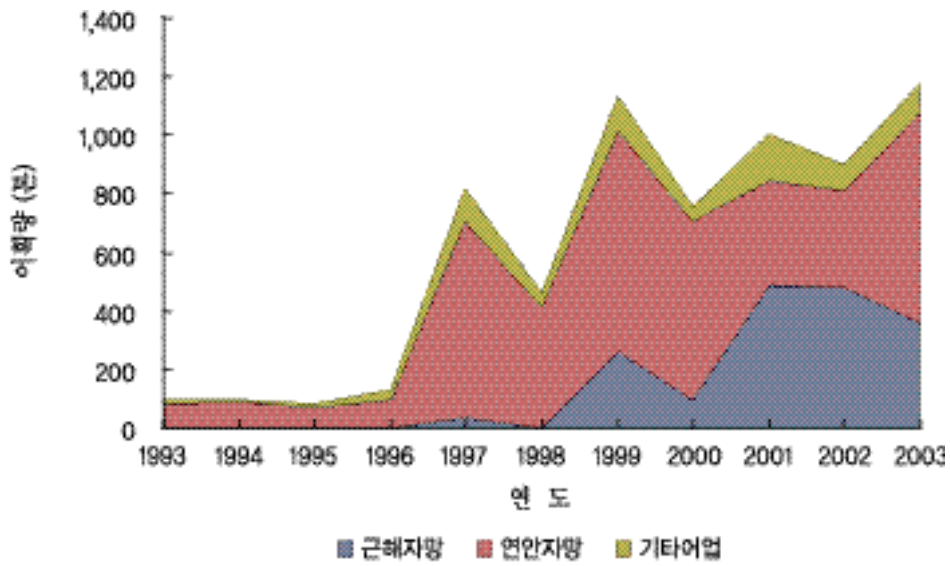
가 '03 1 9

80 90% , '99 가

'03 가



4-76.



4-77.

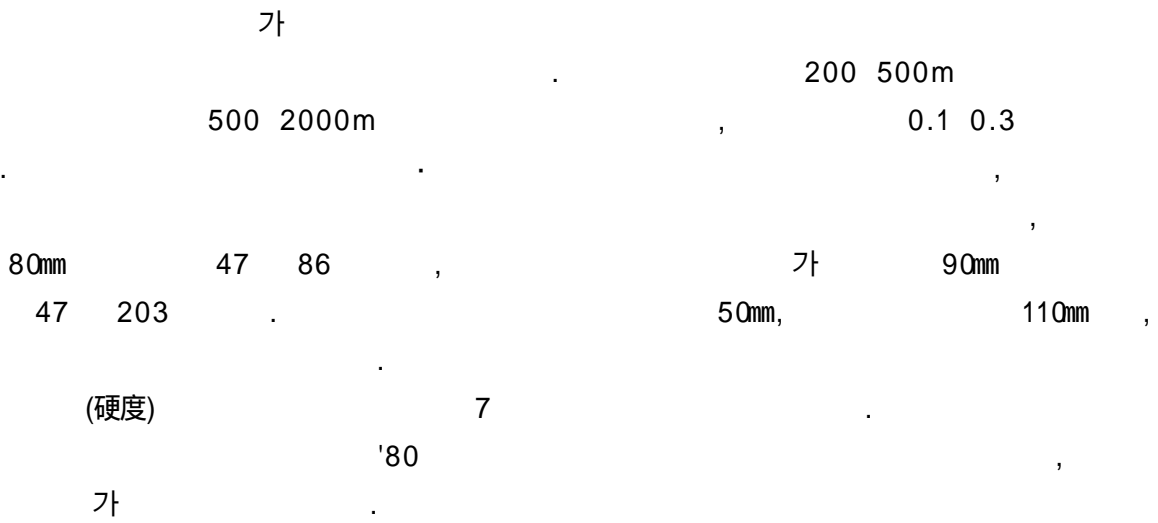
kg, '03 1,045g
 '00 1,142g, '01 918g, '02 1,198g
 가 , , 가
 가

, CPUE 가
 '99 '03 4
 가 992 , MSY 778 845
 '04 가 ,
 8 1

	ABC ()
MSY × 2/3	800
YAM × 1.00	1,000

29. (*Chionoecetes japonicus*)

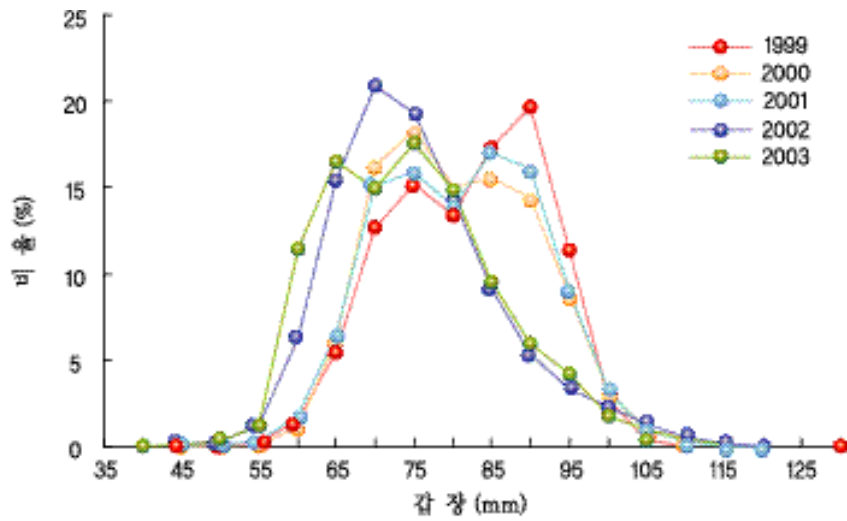
가.



4-78.

'95 4 6
, '00
, '97 5 1 , '98 3 8
, '01 2 , '95 '99 2 5
, '01 1 7 , '01 53.7%,
46.3% , '01
53.7%, 46.3%

가'91 가 , '85 1 '80
 가 '93 2 9 , '95 4 6 , '97 5
 2 가 . '99 2 5
 , '01 2 , '03 1 9 . 98%



4-79.

가'92 401 / 가 가 , '85 711 / '94 820 / , '96 958 /
 . '98 812 / , '99 473 / , '01 338 / , '02
 322 / , '03 250 /
 , '01 2 가
 , '02 가 70mm 가 . '03
 가 60mm

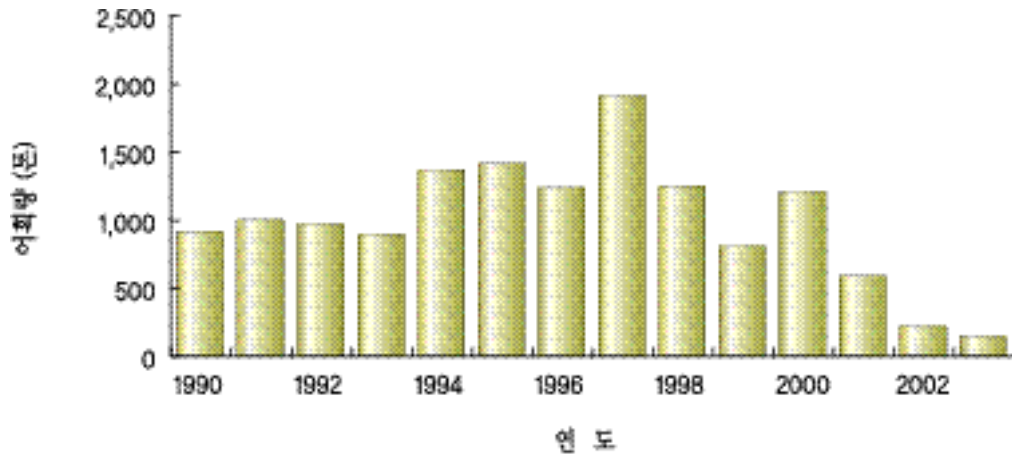
2004 가 3
 2 1 , 가 1 4
 ,
 1 4 2 1

	ABC ()
$Y_{AM} \times 0.67$	14,000
$Y_{AM} \times 1.00$	21,000

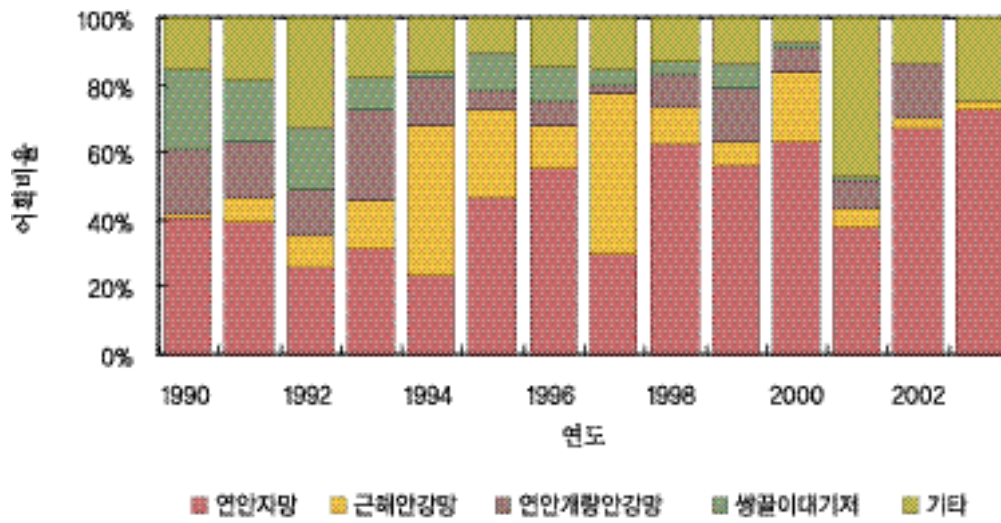
30. (*Penaeus chinensis*)

가.

가 27cm, 12 13cm, 30g, 16 18cm, 50 70g
 (屬),
 34, (以西)
 가
 가 15
 4 6, 4 5 (: 5
 , 14 18) , 20 100 60
 3 10m (23 29%)
 5mm가 0.4mm 1 2.0mm, 4
 6 2cm , 7 4cm , 9
 4 15cm (43g) , 5 10
 18cm 1 가 7
 가 1
 '97 1 9
 '03 148 '97 8%
 60 70%
 '90 20%
 '90 40%
 '90 2%
 , '90 30 40%
 '02 67%, '03 73%



4-80.



4-81.

가 TAC ABC 5
 CPUE 가 가
 가 가 5
 3 ('01 '03) 317
 105 213 가 , '03
 143 140 ABC

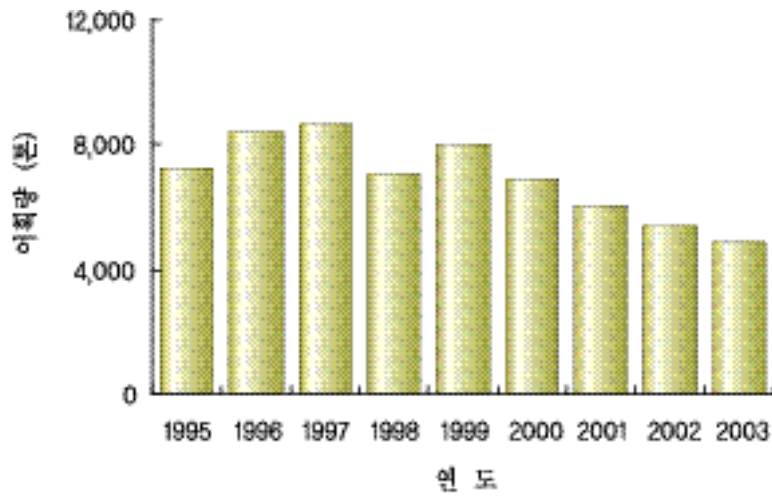
	ABC ()
YAM	140

31. (*Saxidomus purpuratus*)

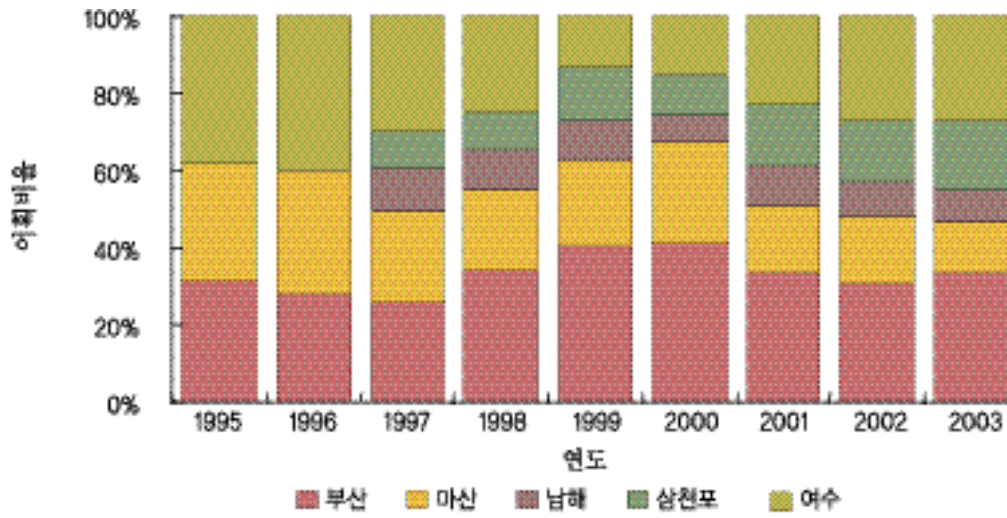
가.

目 科 , 九州
 , 40m
 가 가
 , 12 (,) 34 ()

5 1 , 7 , 12
 '95 '99 7 8 73% , 34 1 9
 '00 '02 8 6 가
 5 4 , '03 4 9
 70 90%가
 가

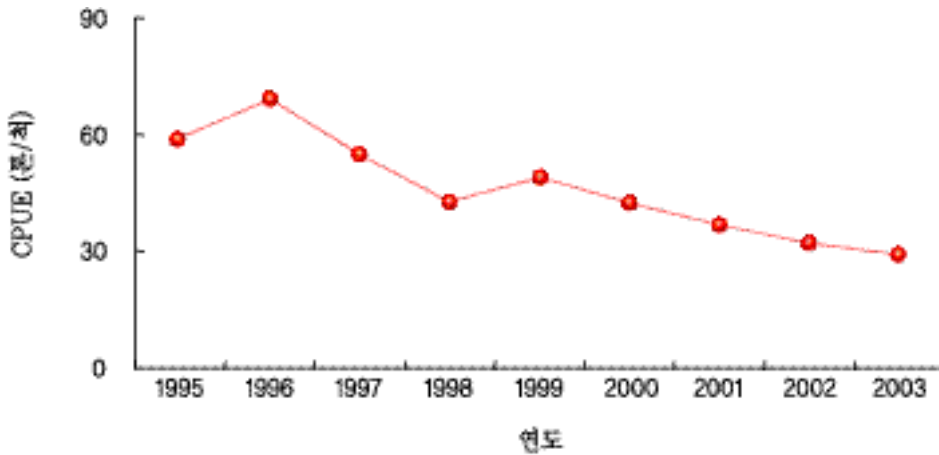


4-82.



4-83.

(SH) '00 73.0mm '01 67.7mm,
 2002 61.8mm '03 71.9mm
 '03 35 120mm , 가 가 35mm ,
 65 85mm 74% .
 (CPUE) , '96 69.3 / , '03
 29.1 / .



4-84.

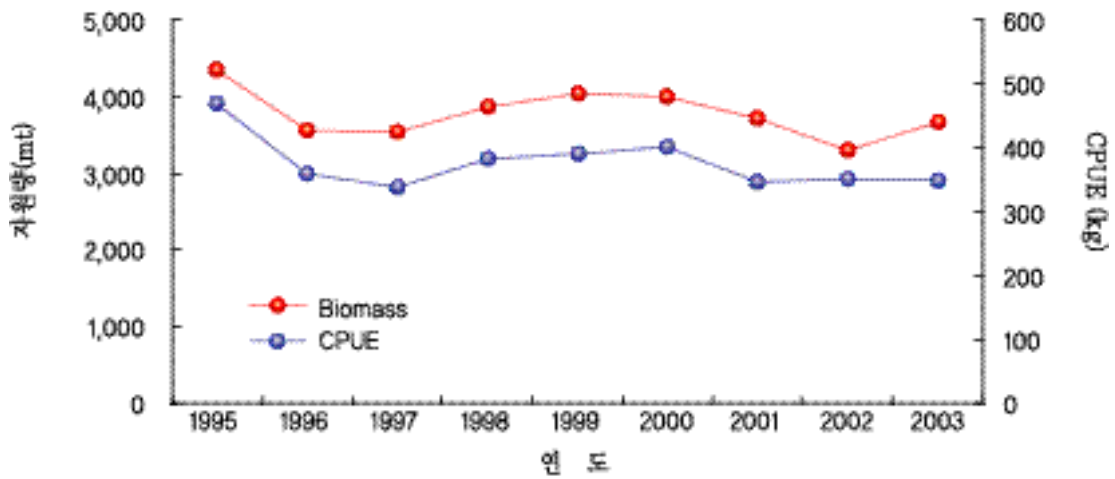
ABC 2 , 가
 ('01 '03) (B) 38,044
 (BRP) F_{40%} 0.3472/ , B_{40%} 47,241
 ABC ,
 (ABC) 8,019 .

	ABC ()	F _{ABC} ()
F _{40%}	580	0.28

32. (*Branchiostegus japonicus*)

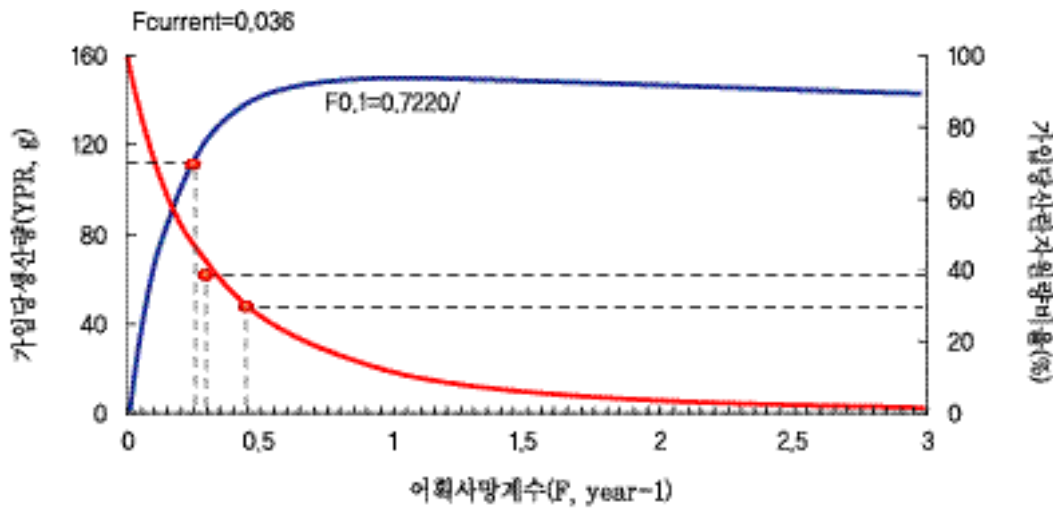
가.

Year	CPUE (kg)	TAC	Quota (%)
1970			
1991-10			
1995	4,341		
1996	3,561		
1998			
1999	4,47		
2000/01			
2001/02	1,877	1,950	95%
2002/03		TAC	90%
2003/04	1,935		76%
2004			
2005			
2006			
2007			
2008			
2009			
2010			
2011			
2012			
2013			
2014			
2015			
2016			
2017			
2018			
2019			
2020			
2021			
2022			
2023			
2024			
2025			
2026			
2027			
2028			
2029			
2030			



4-85.

가 (tc) 2.14 , 가 가
 F_{max} 0.85/ , 가 120.0g
 $F_{0.1}$ 0.276/ , 가 103.9g



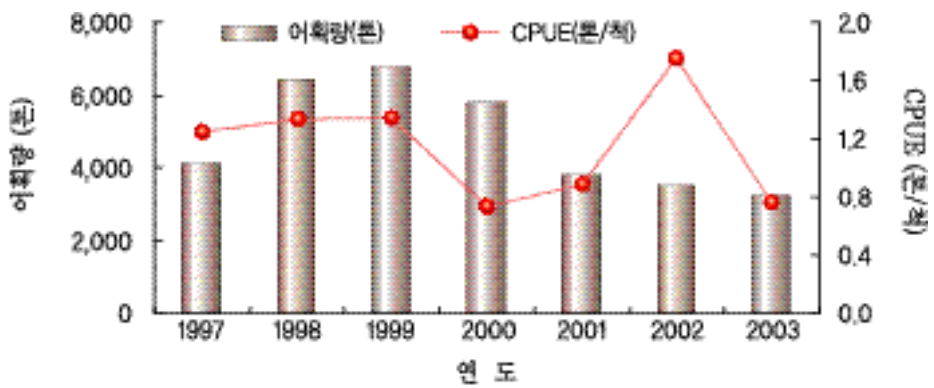
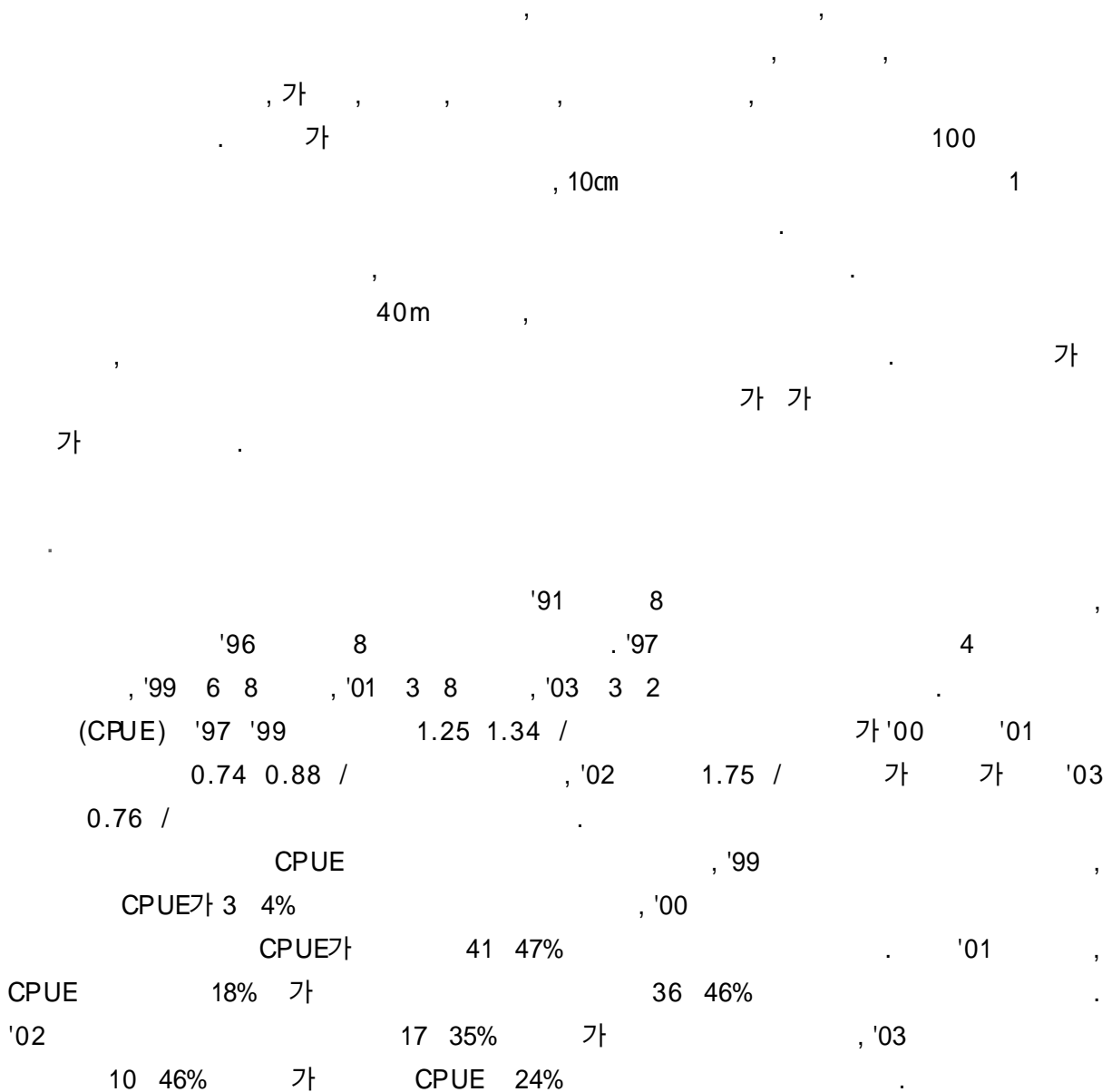
4-86. ABC

0.300/ , 가 234.9g . TAC 가 F30%가
 (3) 800 . 가
 , 가
 가
 10% (3 80%) 가

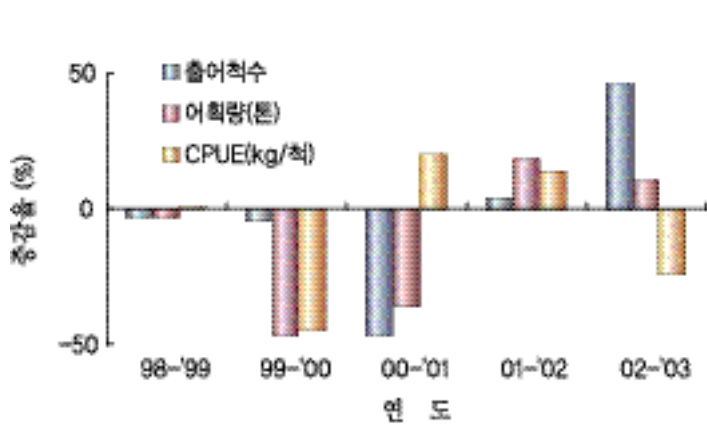
	ABC ()
$F_{0.1}$	800
MSY	1,648

33. (*Atrina pectinata*)

가.



4-87.

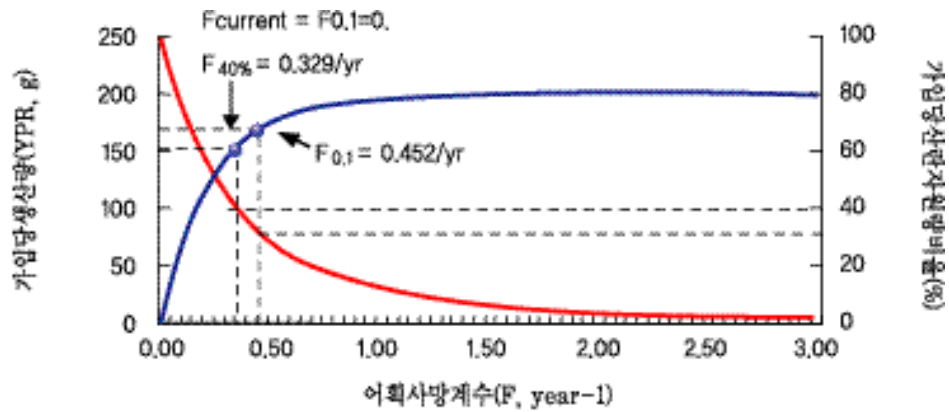


4-88.

CPUE

VPA
가 '98
, 4
2,100
,
가
'98
'01 350
, 4 가
1,200

2



4-89. ABC

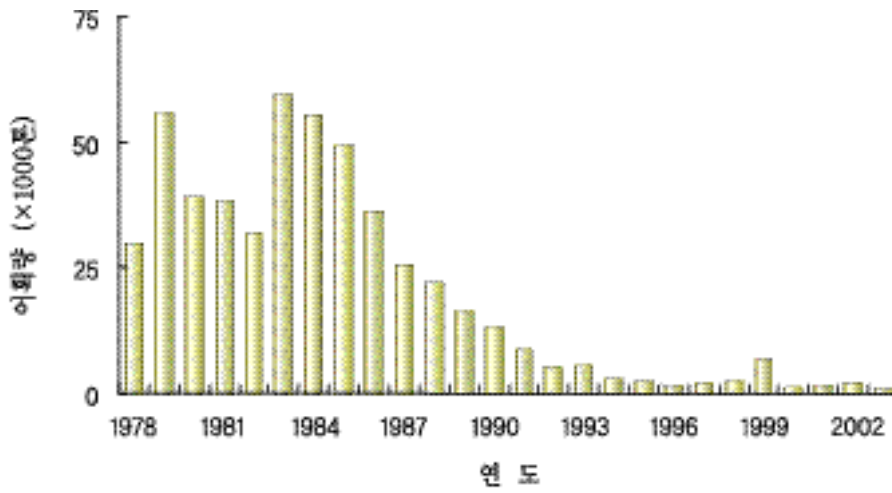
가 TAC ABC 3 2
, 가 '03 (B) 8 9
, (M) 0.39/ F40% F0.1 가
, 가 (SPR) F40% 가 (YPR) F0.1
0.329/ 0.452/
, B/B40% 1.308 1
, FABC '03
, F0.1 F40%
2 9 4 2

	ABC ()	F _{ABC} ()
F _{40%}	2,900	0.329
F _{0.1}	4,200	0.452

34. *(Sepia spp.)*

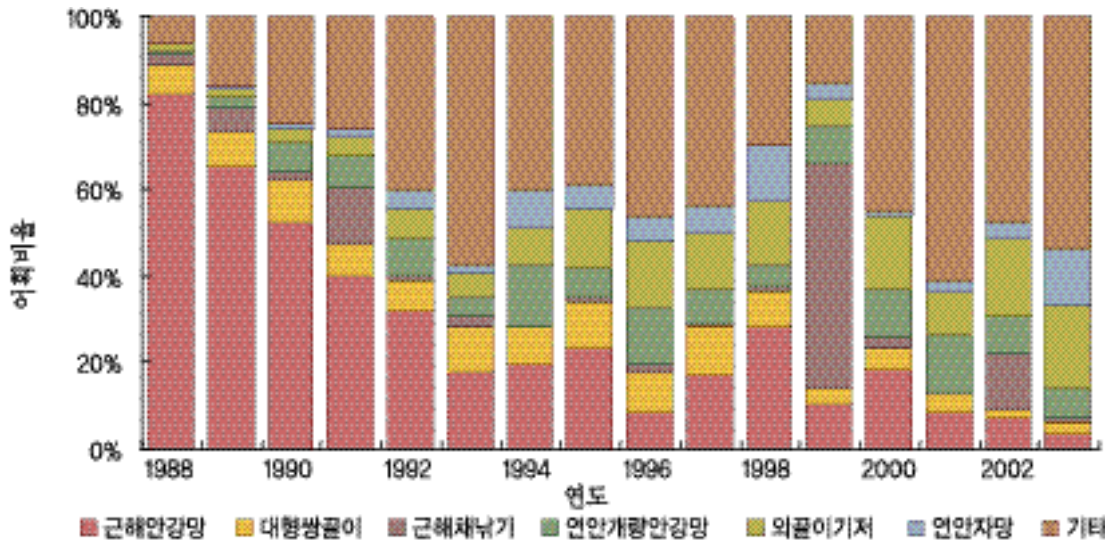
가.

26 , 30 120m , 10m 10
 가 , 4 5 , 5
 6 1 가 . 13 19 , 50%
 20cm , , , ,
 1 , 32cm .

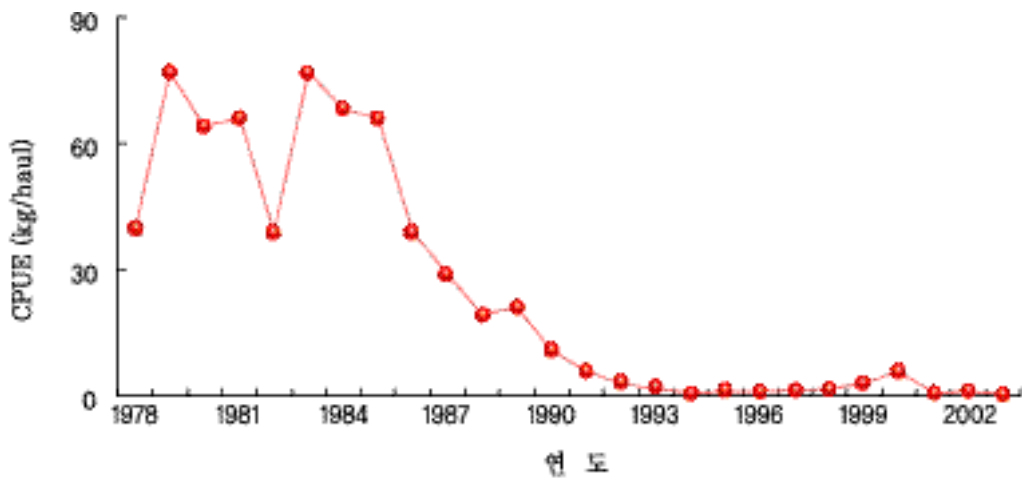


4-90.

'70 3 5 , '83 5 9
 '03 8 7 ,
 '80 '00
 20 80%가 ,
 10% 가 ,
 '99 50%
 1% .



4-91.



4-92.

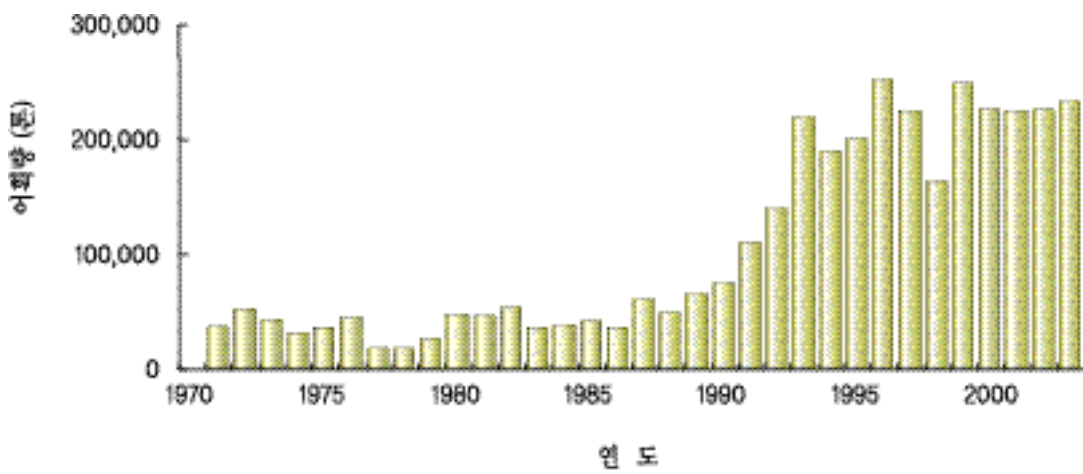
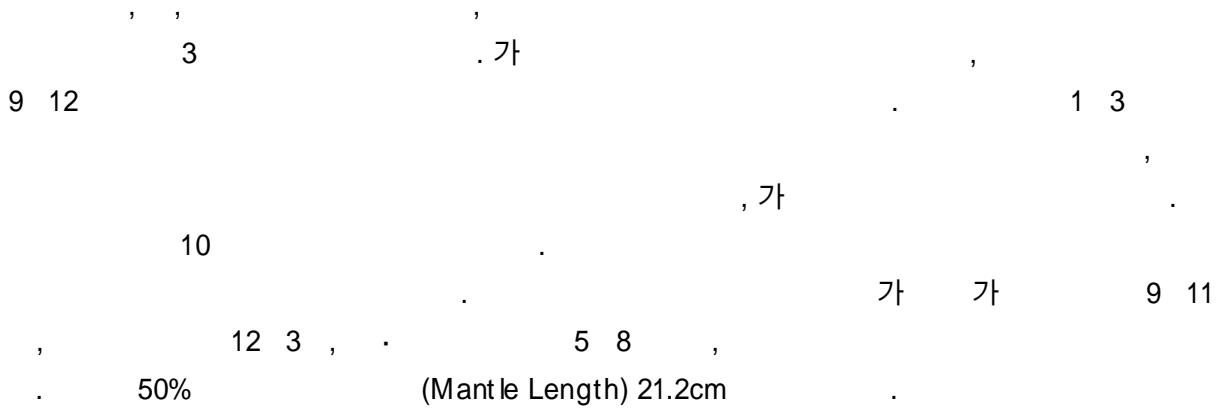
CPUE() , '80
60kg/ '80
0.4kg/ '03

TAC ABC 4
가 CPUE . ABC 4
MSY CPUE , CPUE_{MSY} CPUE/ CPUE_{MSY}<0.05 4c)
가

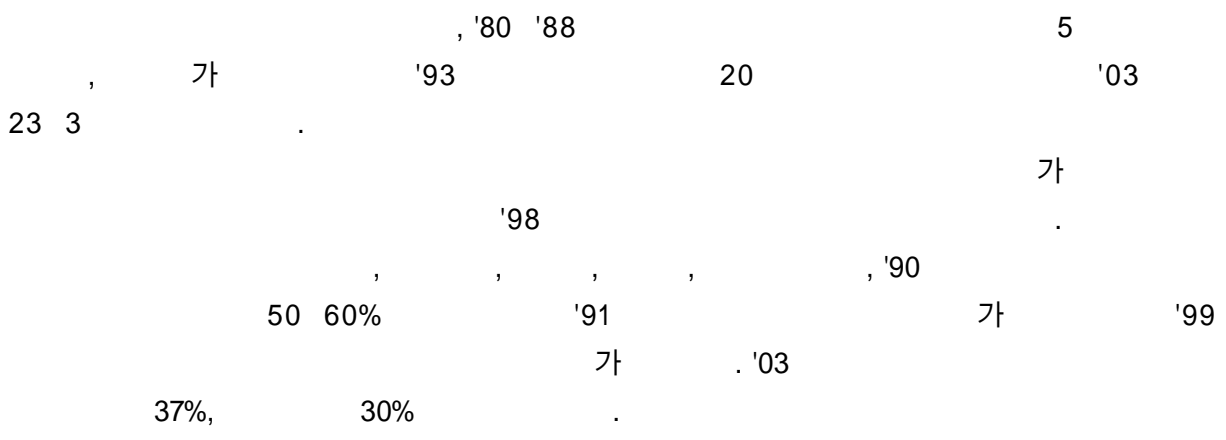
	ABC ()
MSY	-

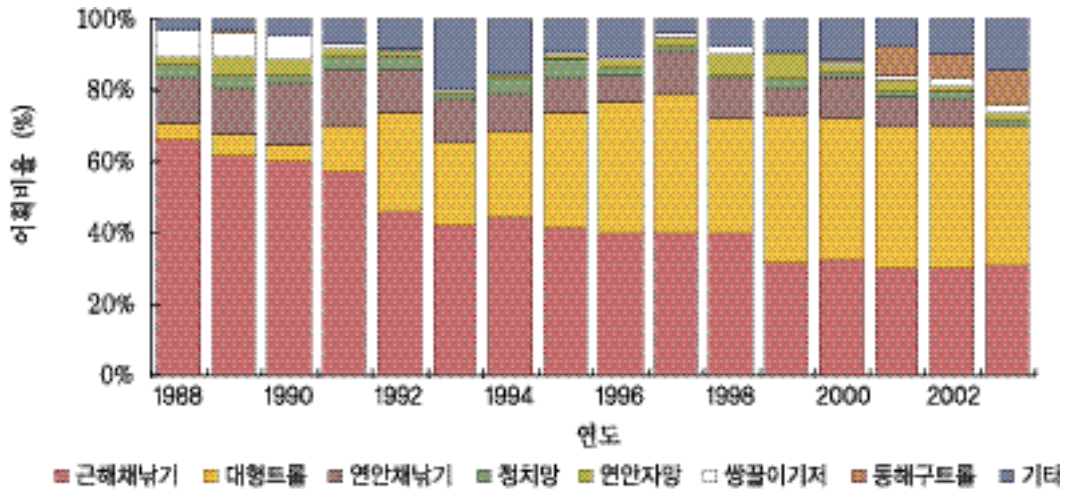
35. (Teuthoidae)

가.



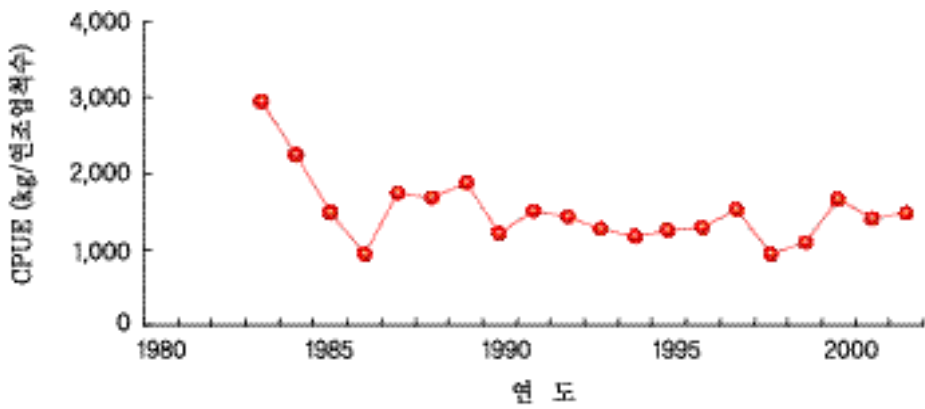
4-93.





4-94.

'98 가 가 , '80 가
 6 8 11 13cm , 9 12 가
 3 4 13 15cm , 1 5 5 8 12 15cm 가
 , 8 , 8
 가



4-95.

4 5 . 5 ABC
 가 '93 '03 21 9 16 . 4
 가
 23 ABC 16 20

	ABC ()
MSY	200,000
YAM x 0.75	160,000

2003

가

	2003 ()		가 ()	ABC * ()
	2003	()	()	
가	2,566		5	2,100
가	13,107		5	11,000
	62,861		4	56,000 ~ 62,000
	18,880		5	16,000
	800		4	70
	122,049		2	150,000
	1,424		4	1,100
	1,525		5	580
	1,826		4	800 ~ 1,500
	1,928		5	1,600
	1,432		4	-
	250,106		4	190,000 ~ 222,000
	242		4	-
	1,306		5	1,100
	7,496		5	5,000
	460		4	30
	220		4	150
	17,451		5	13,000
	22,608		4	22,000
	10,486	가	4	6,900 ~ 7,500
	1,303		5	1,100
	20,454		2	10,100
	18		2	-
	756		5	700
	7,098		5	6,500
	3,571		5	3,500
*	9,478		3	8,400
	1,889		4	800 ~ 1,000
	148		5	140
	19,262		5	14,000 ~ 21,000
	4,868		2	8,019
**	1,700		3	800 ~ 1,648
***	3,226		2	2,900 ~ 4,200
	872		4	-
	233,254		4	160,000 ~ 200,000

* ABC = Acceptable Biological Catch :

* : , ** : , *** :

[.]

1

가)

20

가 270~300m, () 30cm

PE Ø3.5mm

57mm

5-1.

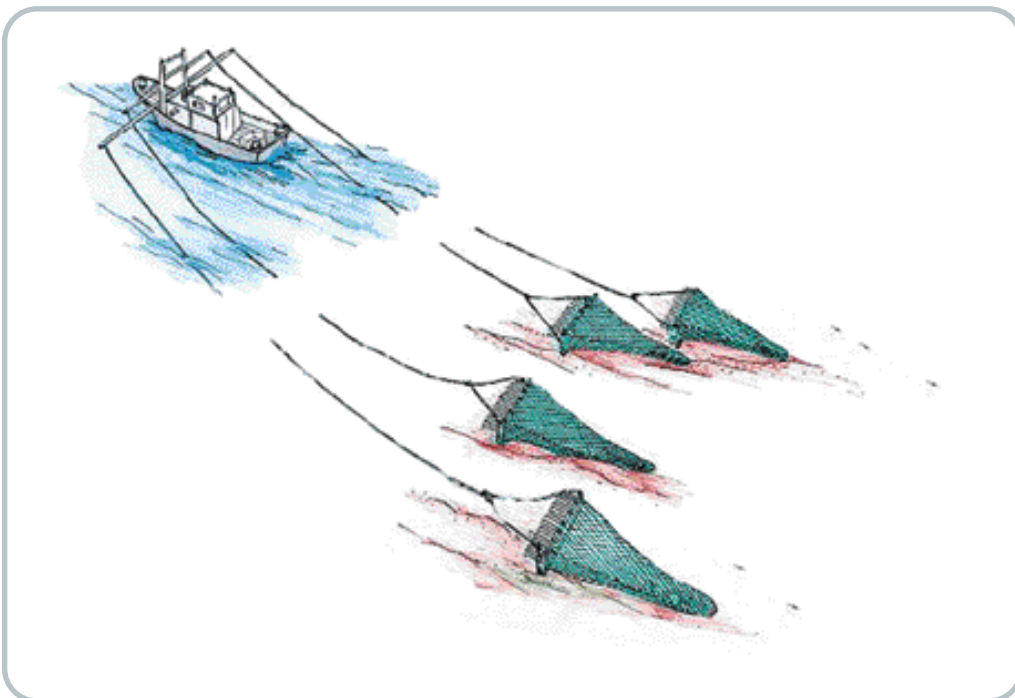
	吳	
		吳
	吳	

5-2.

(吳 : , :)

		()	()	()		
.	, ,	8~5	10~20	3~4	50.5mm	2~4
	,	12~2	9~10	3~4	53mm	2~4

5-1.



)

가

(air - compressor)

(8)

5-3.

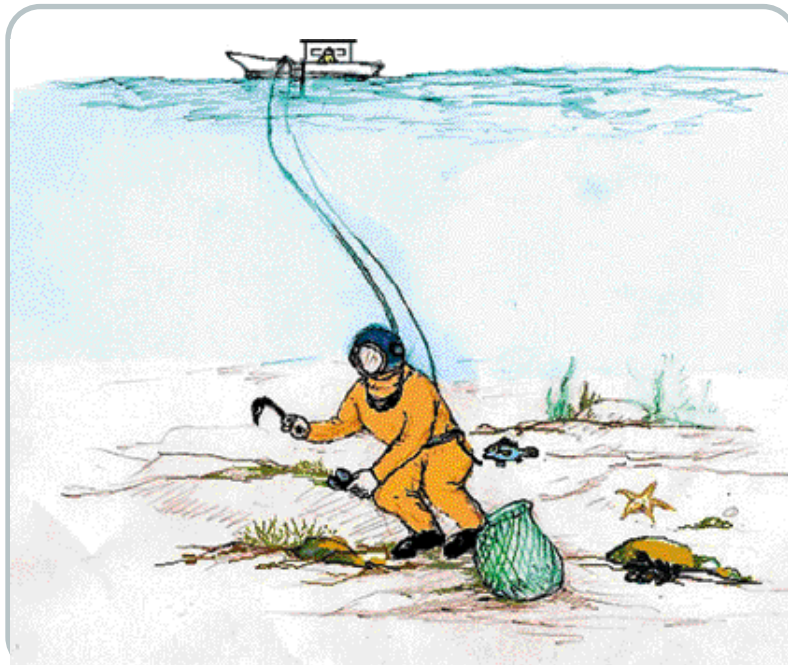
			臭		
			臭	臭	臭
			臭		
	臭				
		臭	臭	臭	臭

(臭 : , :)

5-4.

		()	()	()		
	, , ,		5~8	4~6	, ,	1~2
	, ,	3~6, 9~11	4~8	3~4	, , ,	1~2
	, , ,		4~5	3	, , ,	1
	, ,	9~4	3~5	3	, , ,	1
	, ,	3~6, 9~11	5~8	4~6	, ,	1~2

5-2.



)

가 가 ,

, 가 가 ,
71% 가 가 ,

5-5.

가	吳	吳 吳 吳	吳 吳	吳	吳 吳	吳 吳 吳 吳 吳	吳 吳 吳 吳

(吳 : , :)

5-6.

		()	()	()		
·	, , , , 가	4~6, 9~11	10~100	5~6	180mm(660mm)	100~300
		4~6, 9~11	10~80	5~6	180mm(660mm)	6~12 (400~800m/)
	,	9~1	12~29	8~11	105~135mm 189.4mm	100~250
	, ,	1~5, 8~11	15~60	4~7	100mm	30
		6~11	38~56	10~13	81mm	200~250
		8~4	38~56	10~13	50~58mm	500~600
		6~12	15~20	6~7	11.2mm	69
가			20~50	4~5	120mm	300
		11~3	20~50	4~5	240mm	200
	, 가 , ,		10	3~5	30mm	40~60
		8~2	10	4~6	75.7~240mm	40~60
	가 , ,		10	3~5	28mm	60~70
			10	4~6	68~240mm	60

5-3.



)

가 가
가

8 90

20~30 80

5-7.

			吳	
		吳		吳
	吳			
	吳			
	吳	吳		吳
			吳	
	吳			吳
		吳		
			吳	

(吳 : , :)

5-8.

		()	()	()		
.	, , ,	4~6, 8~11	60~130	6~7	34~460mm	15~20
	, , , ,	3~6, 8~12	10~70	3~6	35~303mm	2~14
	, ,	8~12	69~75	7~8	33~480mm	3
	, , ,	3~6, 8~12	10~70	3~6	35~303mm	2~14

5-4.

-

(243p) -

)

, 가 , 1 4

5-9.

	吳	吳	吳	吳 吳	吳	吳 吳		吳
	吳	吳					吳	吳
					吳	吳	吳 吳	吳 吳
	吳 吳	吳 吳						

(吳 : , :)

5-10.

		()	()	()		
.	' ,	3~12	8~70	4~6	35mm	15,000~20,000
	, ,	3~11	9~15	4~5	35~37mm	1,600~2,000
	, ,	9~12	70~80	10	32mm	2 (2,000 /)
		9~1	60~70	11~12	41mm	2 (1,500~2,000/)
		1~8	60~70	11~12	23.3mm	4 (1,500~2,000/)
	, ,	4~12	50~100	10~12	35mm	10~12 (40 /)
	, ,		30~70	10~12	Ø7.45	10,000
	, ,		30~60	8~12	32mm	2 (2,000 /)
			60~70	7~10	Ø6~9mm	1 (12,000~15,000/)
			20	3~5	: 30mm : 125mm : 40mm : 33mm	2,000~4,000
			20	5~6	: 30mm : 125mm : 40mm : 33mm	3,000~4,000

5-5.

-

(236p)-

) ()

()

, 1

가

가 ,

5-11. ()

가							
가			吳		吳	吳	吳
					吳	吳	
				吳			
	吳		吳	吳			吳
		吳					

(吳 : , :)

5-12. ()

		()	()	()		
	,	5~11	10~14	4	80 /	12~14
			10~30	4~5	300 /	30~40
	,	(9~6)	10	6~7	160 /	70
	, ,가 ,		10~15	5~7	200/	70~80
	, ,가		10	3	550 /	45~50
	,가	3~11	10	2~4	100 /	15~20
	,	9~2	11~30	8	110 /	100~150

5-6. ()

- ()

(233p) -

)

가 가 가
 2m
 10 100kW , 10 20 130kW , 20 50 180kW , 50~70
 200kW , 70 210kW
 , 1 5~20

5-13.

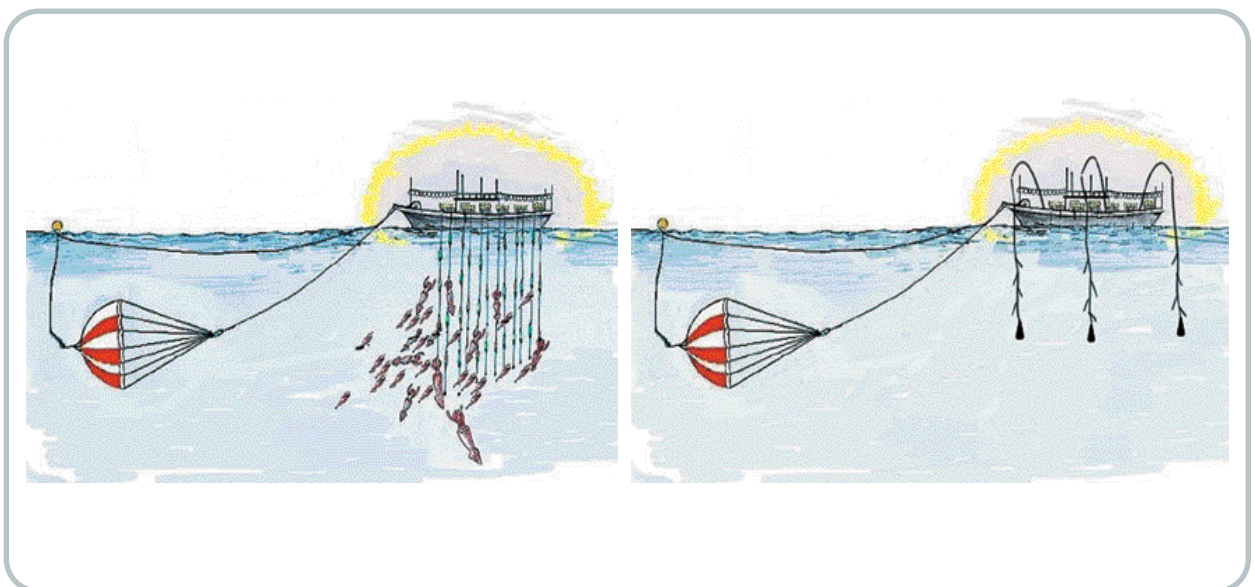
	吳	吳	吳	吳	吳	吳	吳

(吳 : , :)

5-14.

	()	()	()		
	7~9	10~45	10~20	30 /	20~36
	8~10	7~20	7~9	13~15 /	1~2 /
	9~6	30	6~8	30~40 /	12~20
	6~9	30	6~8	15 /	1 /
	(8~12)	20~40	5~8	30 /1	28
	7~2	15~70	5~13	35 /	20~36
		30	5~6	30 /	26~32
		20	4~8	30 /	20~24

5-7.



)

1 2

가

가 가

가

가

5-15.

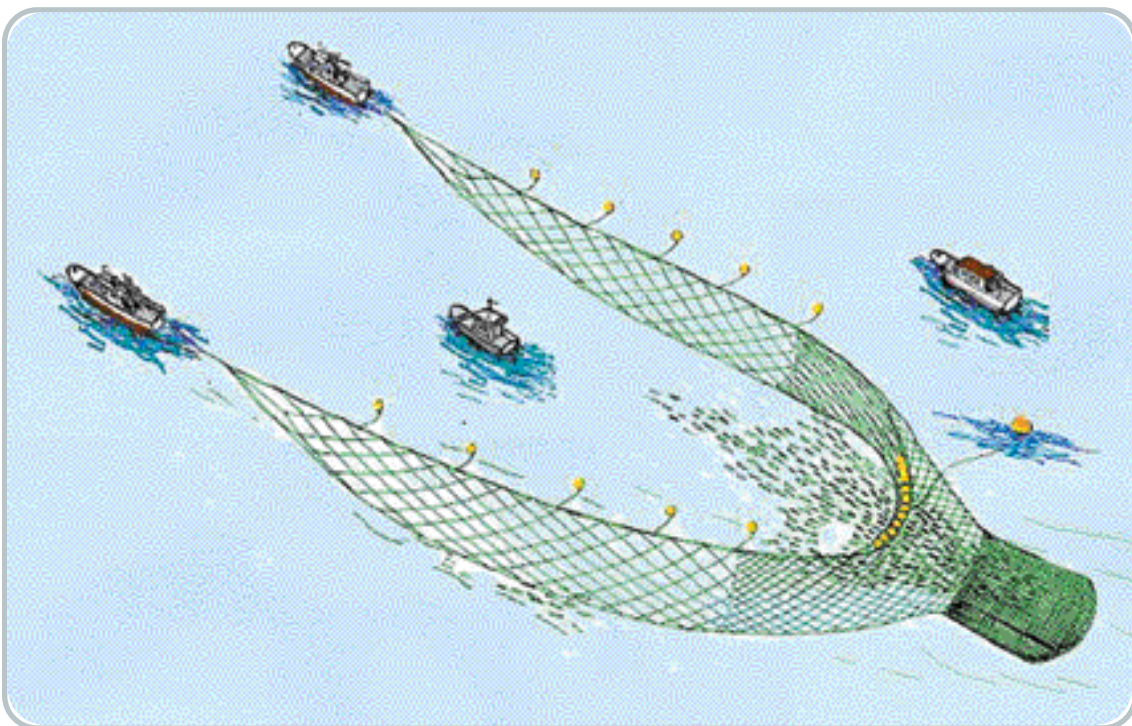
	吳	吳	吳

(吳 : , :)

5-16.

		()	()	()		
		7~3	21~30	35~42	140 ~ 3,600mm	1
		7~2	30	20~23	140~160	1
		7~1 (8~11)	가 50~70 15~25 60~100 30~50	10~15 / 2~3 / 14~16 / 3~4 /	140 ~ 3,600mm	1

5-8.



)

1

가 .

5-17.

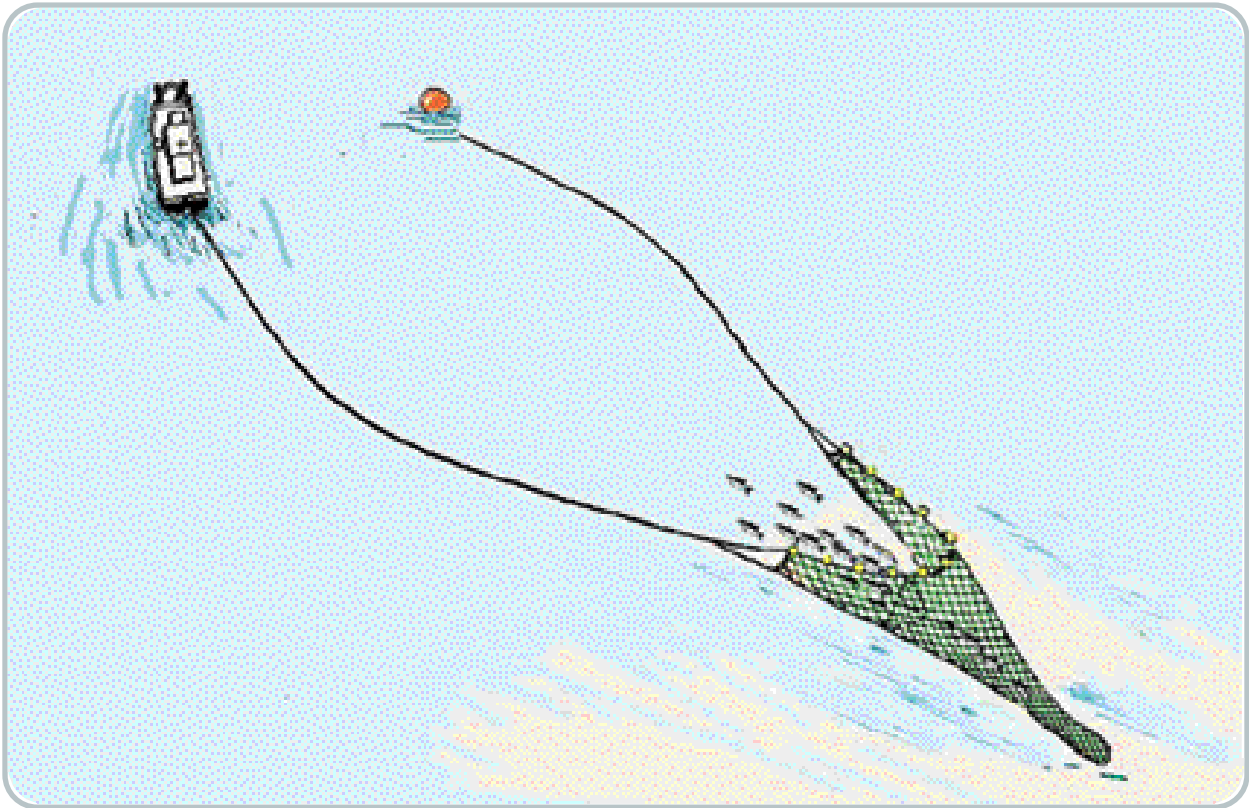
가		吳	吳	吳	吳	吳
가		吳	吳	吳	吳	吳
	吳					
		吳	吳		吳	吳
	吳					

(吳 : , :)

5-18.

		()	()	()		
	, ,	9~5	39~69	8~9	40.4mm	1
	, ,	10~4	40	6~8	32mm	1
	가 , , , ,	(10~5)	45~100	12~13	40mm	1
	가 ,	9~6	70~80	8~10	33mm	1
	가 , ,		50	5~10	40mm	1
	가 , ,		50	7~10	40mm	1

5-9.



)

1

2

1

가

5-19.

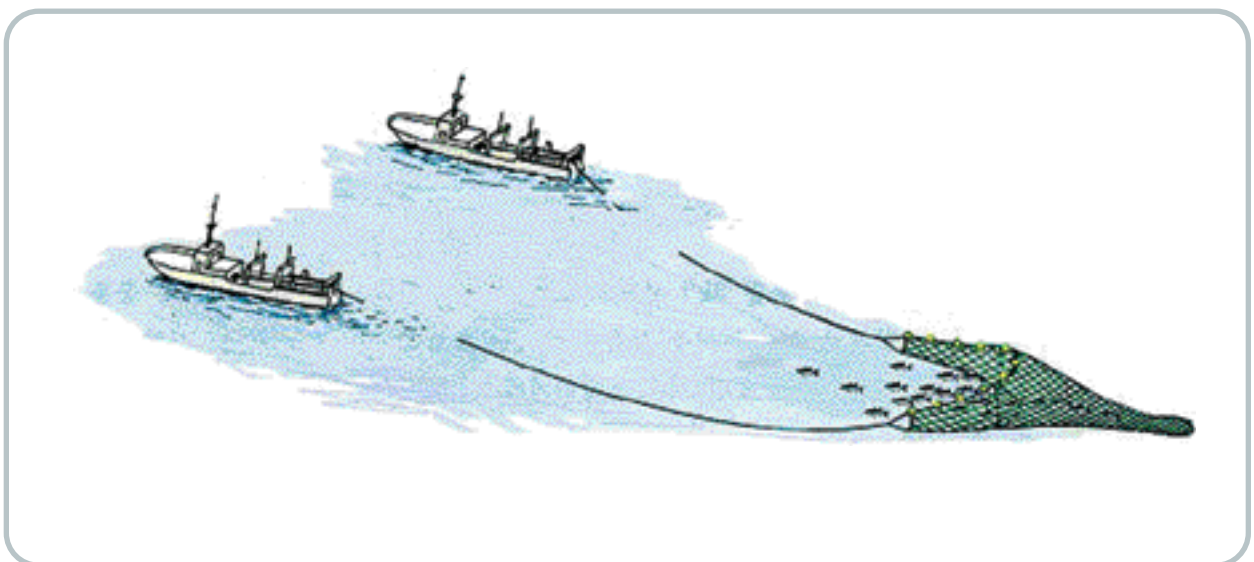
가 가	吳 吳 吳	吳	吳 吳	吳 吳 吳 吳
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(吳 : , :)

5-20.

·	, , ,	()	()	()		
	, , ,	1~6, 9~12	90~110	24~28	54mm	1
	, ,	8~6	39~69	8~9	35mm	1
	, 가 ,		80	12~14	50mm	1
	, , , ,		80~140	12~14	50mm	1

5-10.



)

가 , , 1 가 , , 4
 , 6 , 8 , 8 , 12
 가70 140

5-21.

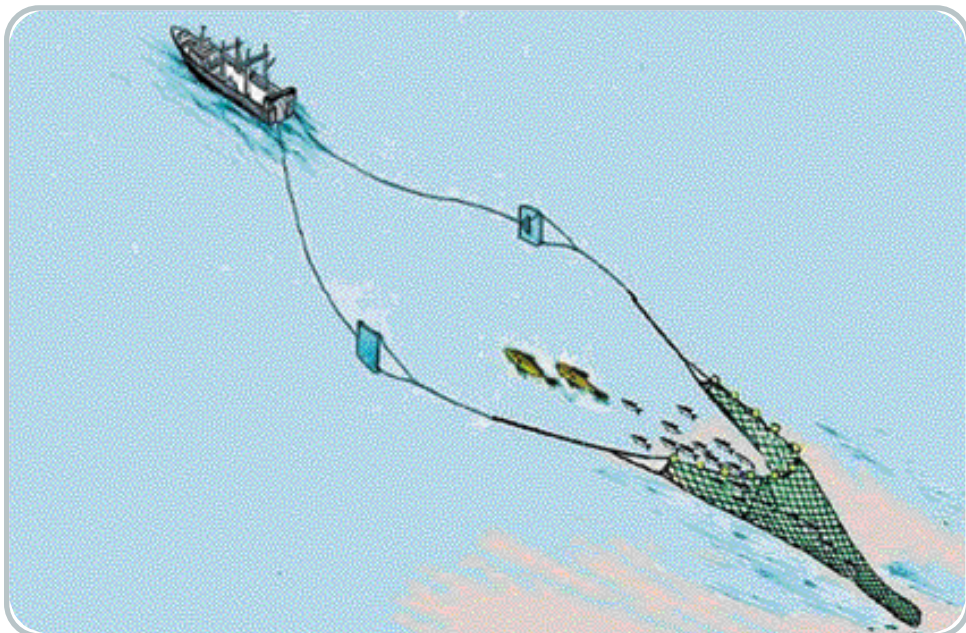
	吳 吳 吳 吳
--	--------------------------

(吳 : , :)

5-22.

		()	()	()		
	,	(: 4~7)	140	14~16	50mm	1

5-11.



)

가 20 60

, 가

, , , , ,
4 ,

6 .

5-23.

가	吳	吳
---	---	---

(吳 : , :)

5-24.

		()	()	()		
	, 가 , ,		50	5~7	34mm	1
	가 , ,		50	5~8	34mm	1

5-12.

-

(223p) -

)

가 50 130

5-25.

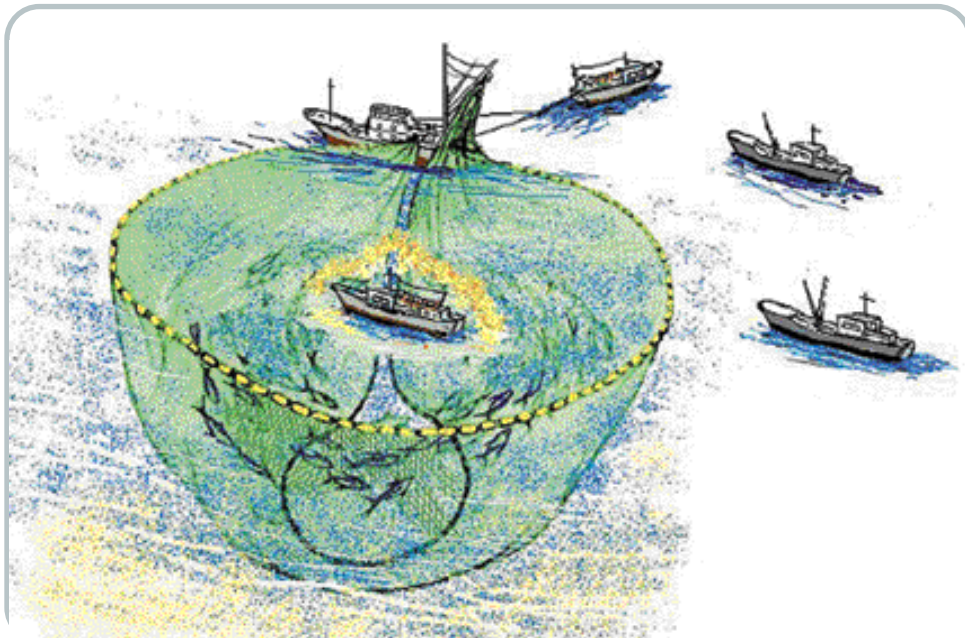
	吳 吳 吳 吳 吳
--	---------------------------

(吳 : , :)

5-26.

		()	()	()		
		(9~2)	100~150 35~60 150~250	25~30 / 6~8 / 8~10 /	30mm	1

5-13.



)

가8 20

1

1 , 2

5-27.

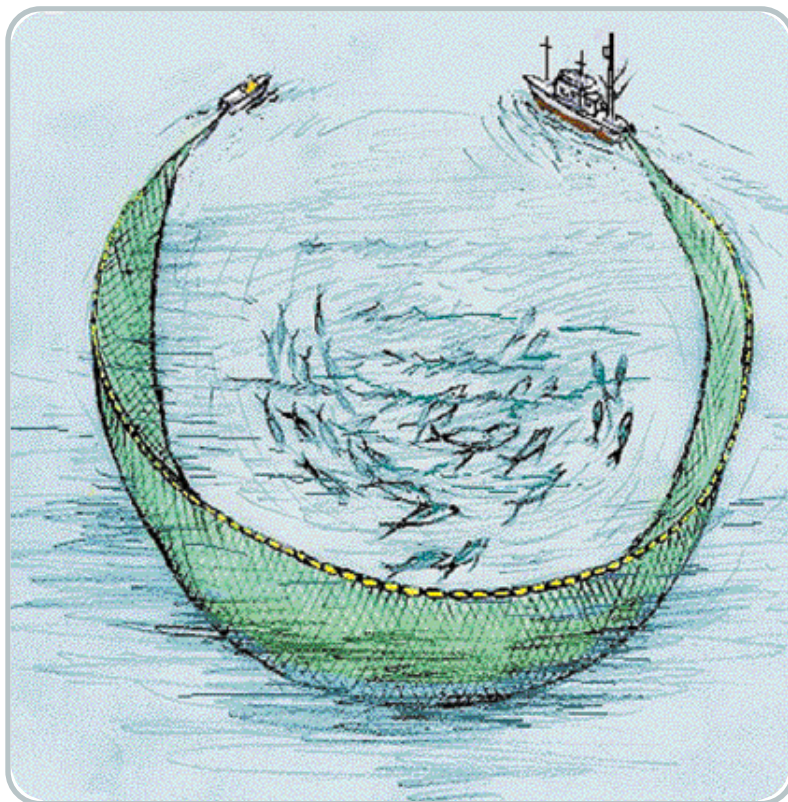
	吳

(吳 : , :)

5-28.

		()	()	()		
	, , ,	7~3	8	5~8	30mm	1

5-14.



)

가

4

Td210 12 24 20mm

Td210 6

38mm

5-29.

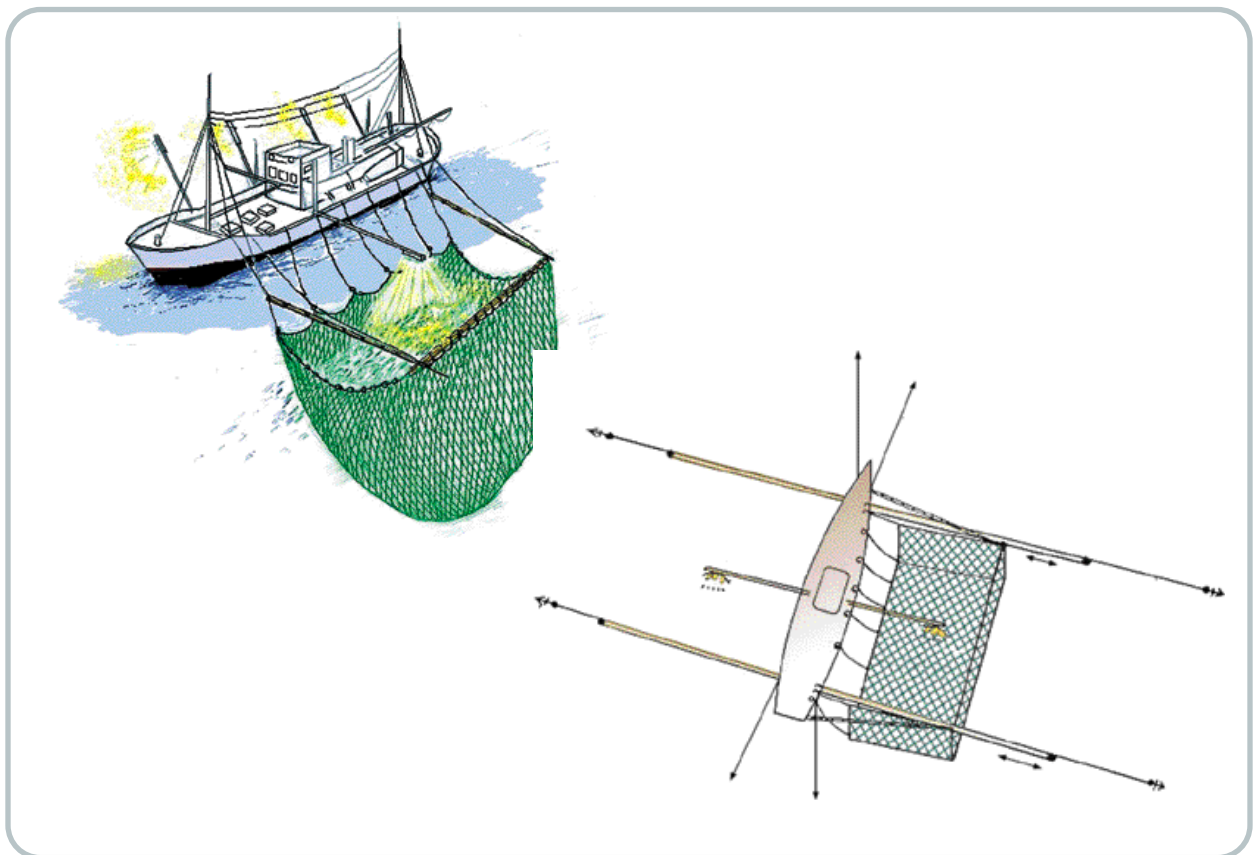
	吳	吳

(吳 : , :)

5-30.

			()	()	()		
			8~12	250	20	20mm	1
			2~4	20	7~9	37.9mm	1

5-15.



5-16.



)

가 가 1
3 4 1 ,
가

5-33.

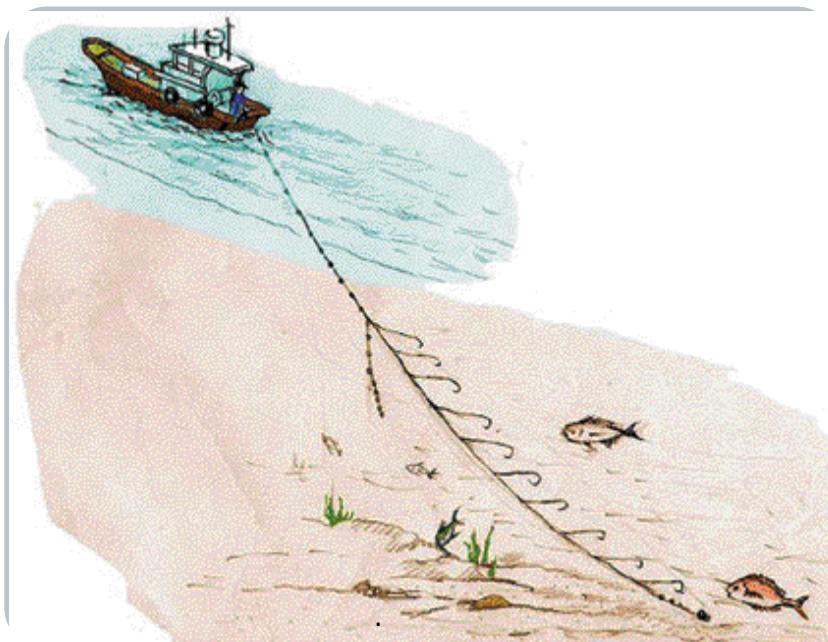
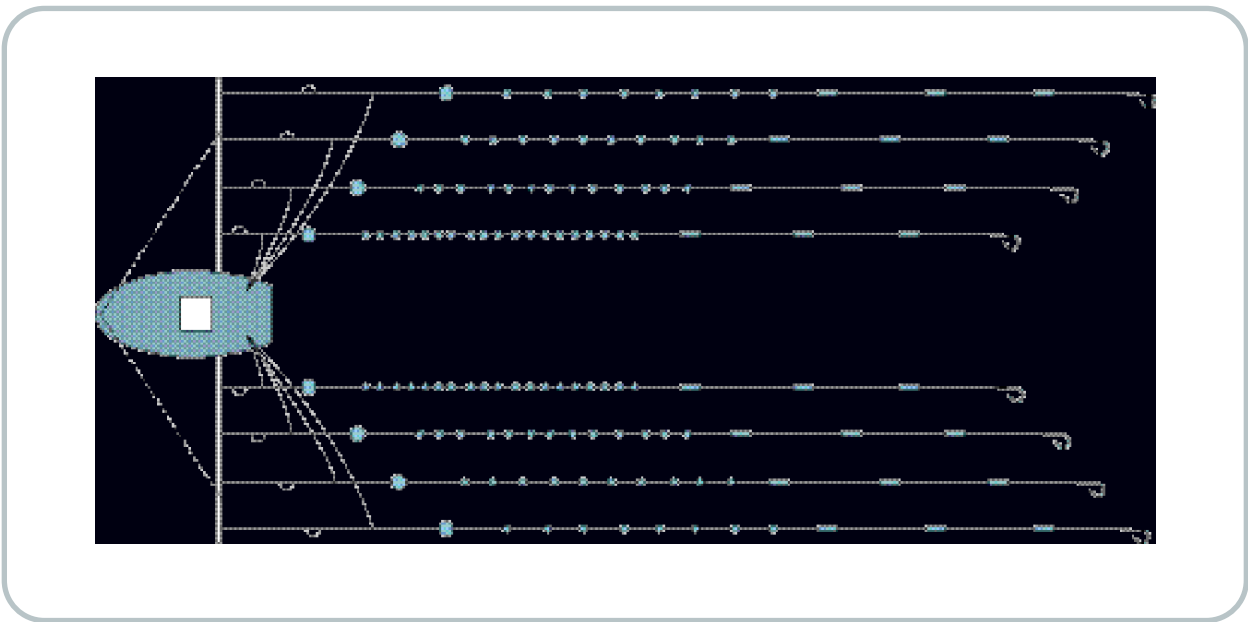
	吳	吳	吳	吳	吳	吳
	吳	吳	吳	吳	吳	吳
	吳	吳				

(吳 : , :)

5-34.

			()	()	()		
		,	8~10	6~7	3	1 /	8
		,	8~10	2~5	1~3	1 /	6~8
		,	9~11	5	1~2	1 /	8
		,	4~11	2~4	1~2	1 /	8
		,	4~7, 9~12	1~5	1~3	19~27 /	1
		,	11~4	3~4	2~3	45~60 /	1
		,	11~2	2~5	1	45~60 /	1
		,	9~3	3~7	2	70~80 /	1

5-17.



)

가 가 가 2m
 , 10 100kW

5-35.

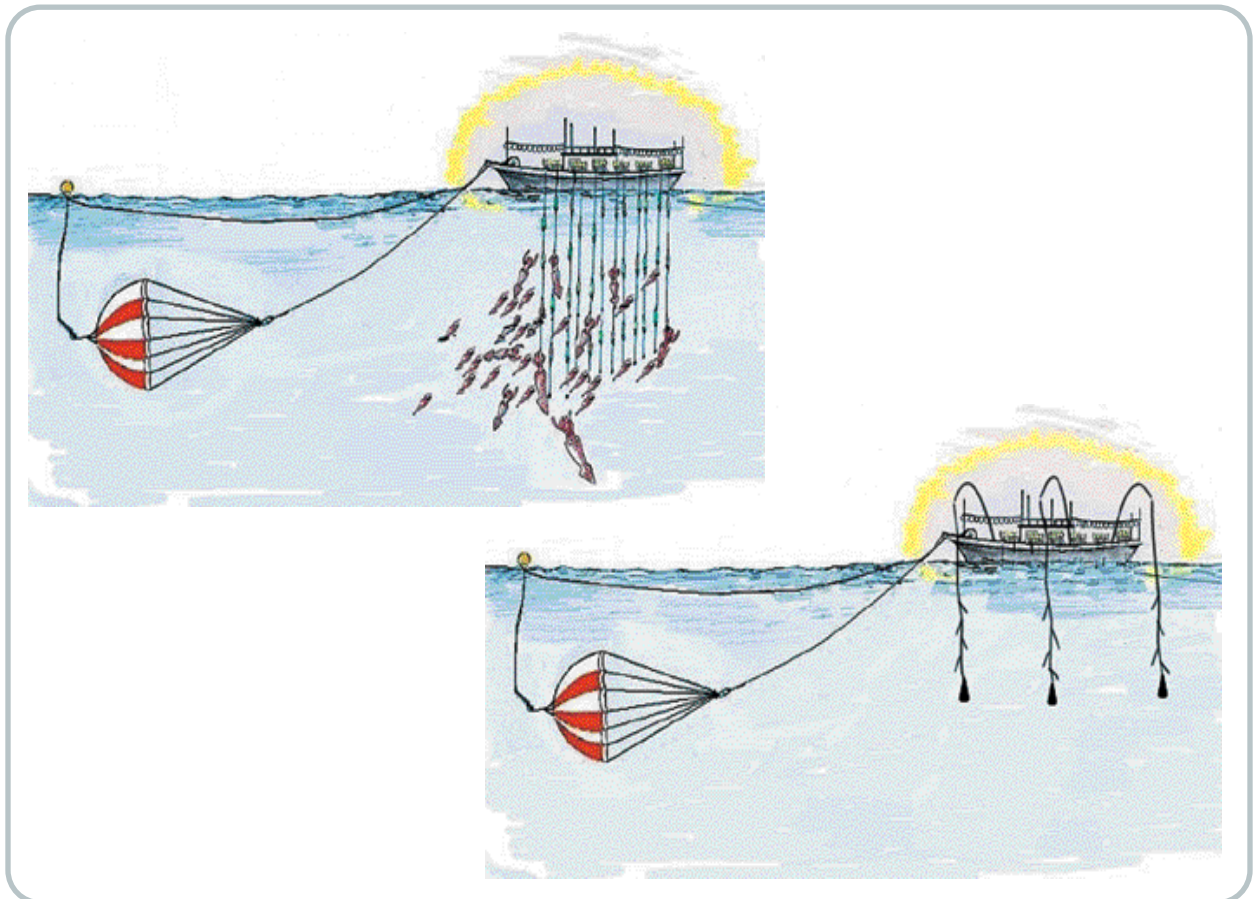
	吳	吳	吳

(吳 : , :)

5-36.

		()	()	()		
		7~11	3~7	4~6	13~15 /	1~2 /
		7~11	5~7	5~7	15~20 /	2 /
		6~10	5~8	5	15 /	2 /

5-18.



) ()

1 .
가 , , , , ,
가 , , , , ,
가 .
가 , , , , ,
가 .

5-37. ()

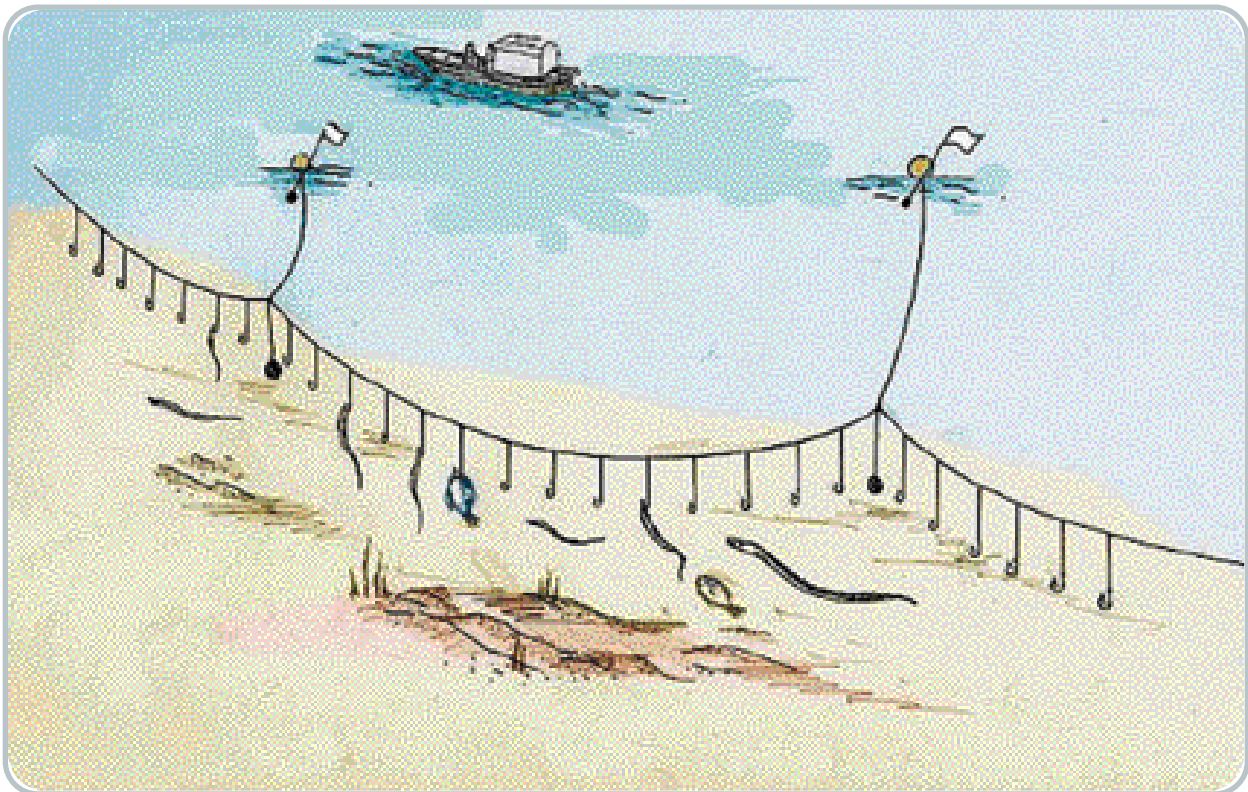
가 가		吳		吳	吳		吳	吳	吳	
				吳	吳					
	吳	吳		吳	吳		吳			
		吳		吳	吳			吳	吳	
	吳	吳		吳	吳	吳	吳			吳
	吳		吳	吳	吳					

(吳 : , :)

5-38. ()

		()	()	()		
.	, ,	3~12	3~8	3~4	60 /	10
	, ,	6~12	4~5	2~3	60~180 /	20~50
	,	5~11	3~4	3	80 /	8~11
		6~10	2~7	3~4	120 /	25~30
		4~12	2~7	3~4	100 /	12~30
		12~4	2~7	3~4	100 /	30~40
		4~9	2~7	3~4	100 /	40~50
		9~10	1~3	2	70 /	3
	,	12~5	1	2	170~200 /	5~7
		5~11	0.5~5	1~2	70~135 /	15~30
		10~12	0.5~1	1~2	120 /	50~60
		11~4	0.5~1	1~2	300~400	300~400
	, ,		2~7	3~6	200 /	5~30
	,	7~11	2	1~2	200 /	10~20
	,	3~4				
	가 , , ,	6~7				
	가	4~12	2~3	2~3	300 /	15~20
		10~3	2~8	3~4	500 /	45
	가	3~8	2~5	3	320 /	12~15
		10~12	3~4	2	100 /	20~50

5-19. ()



)

가
20mm

PP Ø9mm

3m

PP Ø2.7mm

1,000

15

5-39.

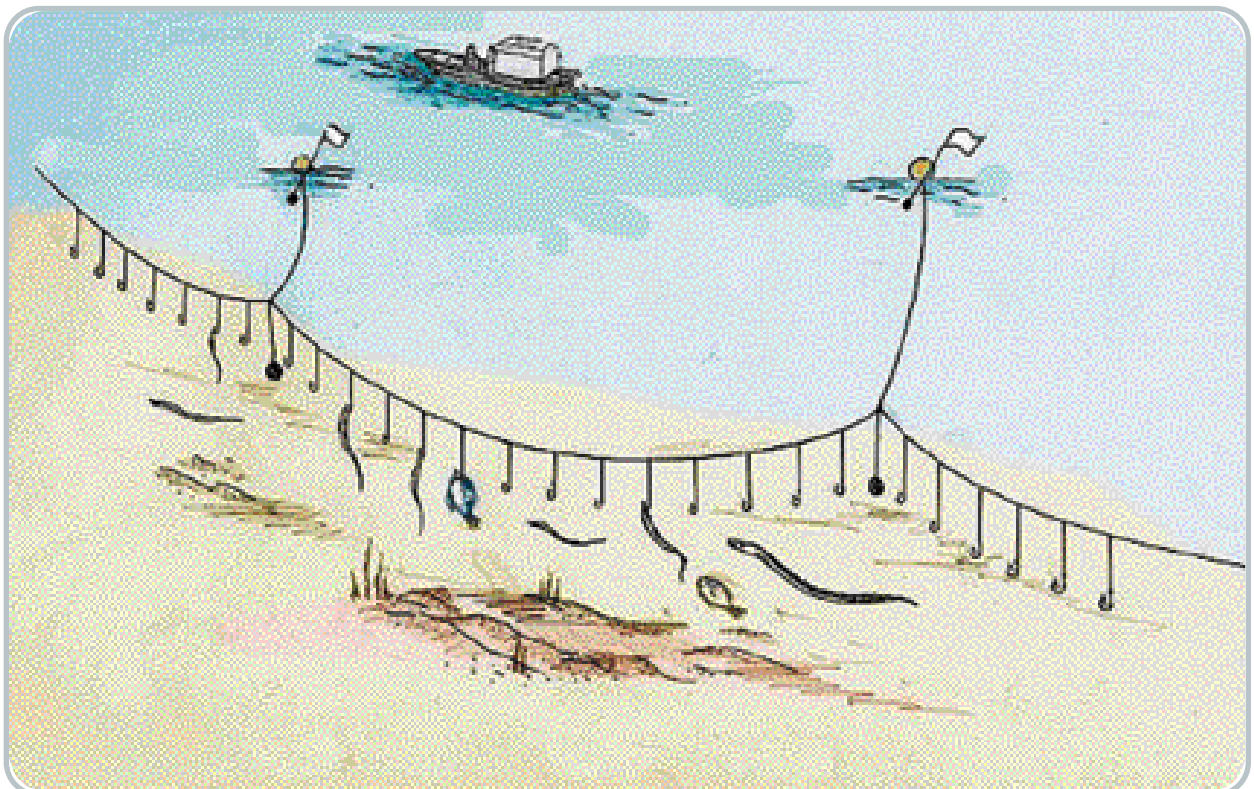
	吳	吳

(吳: , :)

5-40.

		()	()	()		
		4~11	1~2	2	100~120 /	10~30
		4~7	1~2	2	1,000 /	1

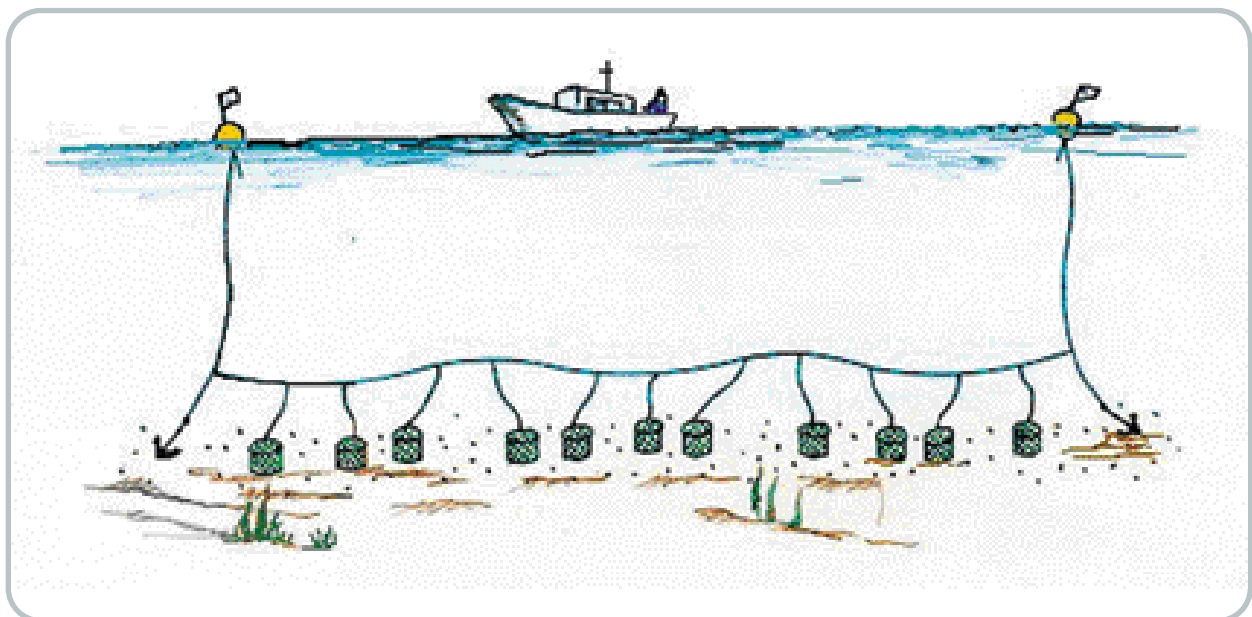
5-20.



5-42.

		()	()	()		
.	, ,	3~12	3~8	3~4	35mm	20~30 (50~70 /)
	, ,	3~12	4~6	2~5	37.6~43.4mm	20~25 (50~100 /)
	'	3~6, 8~11	3~4	3	22mm	10 (100 /)
			1~5	2	17mm	5~8 (100 /)
		1~7 3~6, 10~12	4~7	2~4	24mm	15~20 (50~100 /)
			1~3	2~3	18.5mm	15~20 (75 /)
			3~7	3~5	Ø12mm	10~15 (100~150 /)
	, , ,	4~11 11~2	0.3~3	1~2	15~35mm	80~300
			0.3~3	1~2	74mm	700
	,		2~7	2~3	Ø6~9mm	10 (150 /)
			1~2	2~3	13mm	1~2 (200 /)
			2~4	2~3	27mm	10 (30 /)
()	,		6~8	4~5	35mm	10~14 (170~200 /)
			2~8	2~5	35mm	6~20 (10~50 /)
			2~5	2~3	35mm	300~400
			2~5	2~3	Ø6~8mm	800
	()	3~6 3~5 12~4	5~7	5~6	: 30mm	4,000
					: 125mm	
					: 40mm	
					: 33mm	
	()	6~11 3~5 12~4 6~11	6~8	5~8	: 30mm	2,000
					: 125mm	
					: 40mm	
					: 33mm	

5-21.



5-44.

		()	()	()		
.	, , , 가	4~6, 9~11	2~3	2~3	151.5mm	20~30
		5~10	2~3	2~3	90~96mm	6~12
		3~6, 9~11	0.5~5	2~3	151.5mm	50~300
	, ,	4~6, 8~11	3~4	3	100mm	200~300
		6~7	4~7	3~5	82mm	150
			4~5	3~5	97mm	20~30
			2~5	3~4	67mm	50~70
가	()	8~11	1	1~2	48mm	24
		6~10	0.5~1	1~2	38mm	30
		11~2	0.5~1	1~2	95mm	30~40
		3~10	0.5~1	1~2	86~101mm	30
		3~9, 9~11	0.5~1	1~2	50mm	8
가 , , ,		3~6, 9~12	5~8	6~8	18~24mm	15~20
			4~7	3~4	110~120mm	5~10
가		11~3	3~10	3~5	120mm	240~300
			3~10	3~5	240mm	200
, 가 , ,		9~11	5	3~5	30mm	45~60
		6~12	2~8	4	65~240mm	60
		5~7	5	3~5	30mm	60~70
		12~5	2~8	4	240mm	60~300
		5~6	2~8	3~4	75.75mm	15~30
		9~12	4~6	3	73mm	60
		5~3	4~6	3	131.7mm	60
.	, , , 가	4~6, 9~11	3~5, 5~8	2~4	151.5mm(515.2mm)	20~60
		4~6, 9~11	5~8	3~4	151.5mm(515.2mm)	20~40
	, , 가	5~6, 9~10	0.5~3	2	43.8mm(303mm)	30~80
		10~11	5~9	4~6	189.4mm(678mm)	300
			3~5	3~4	125mm(360mm)	50~80
	가		2~8	3~4	90mm(450mm)	120~200

5-22.



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40 m

3

3

1

5-45.

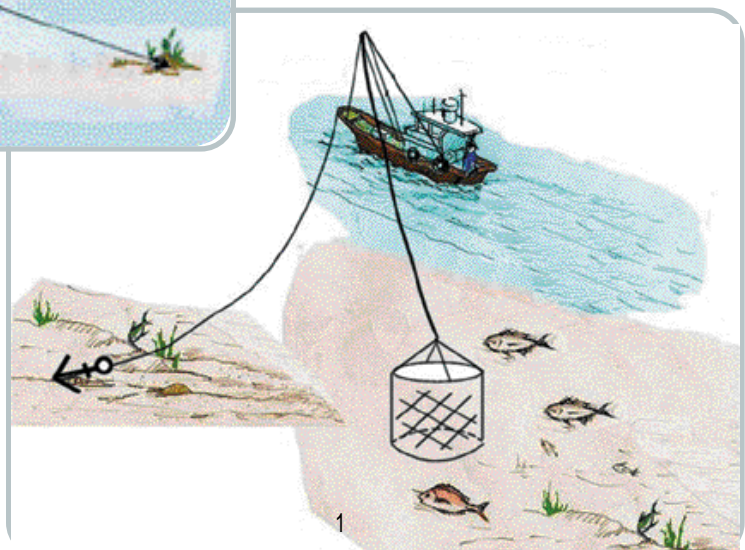
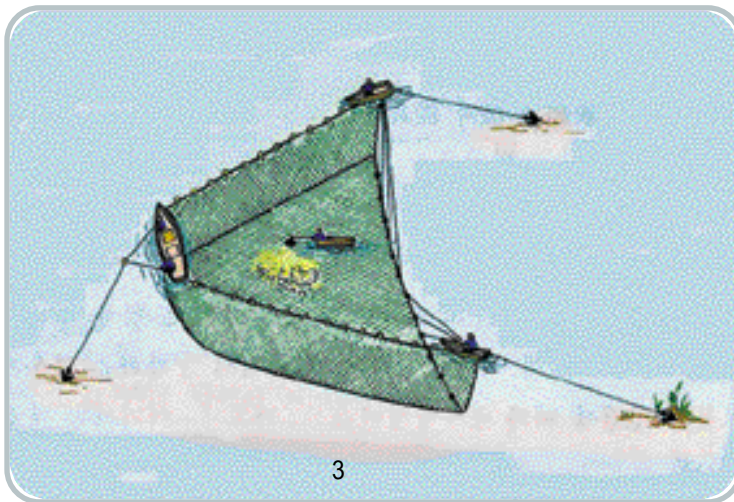
	吳	吳	吳
	吳		吳
	吳		吳

(吳 : , :)

5-46.

		()	()	()		
	,	5~10	1~3	1	51mm	1
		4~11	5	5~7	4.8mm	1
		9~10	2	1~2	35mm	10~20
		3~4, 9~11	6~8	1	33.7mm	1
		4~7	3~10	8~11	25.3~80mm	1

5-23.



)

1kW

, 5~7

7~8

5-47.

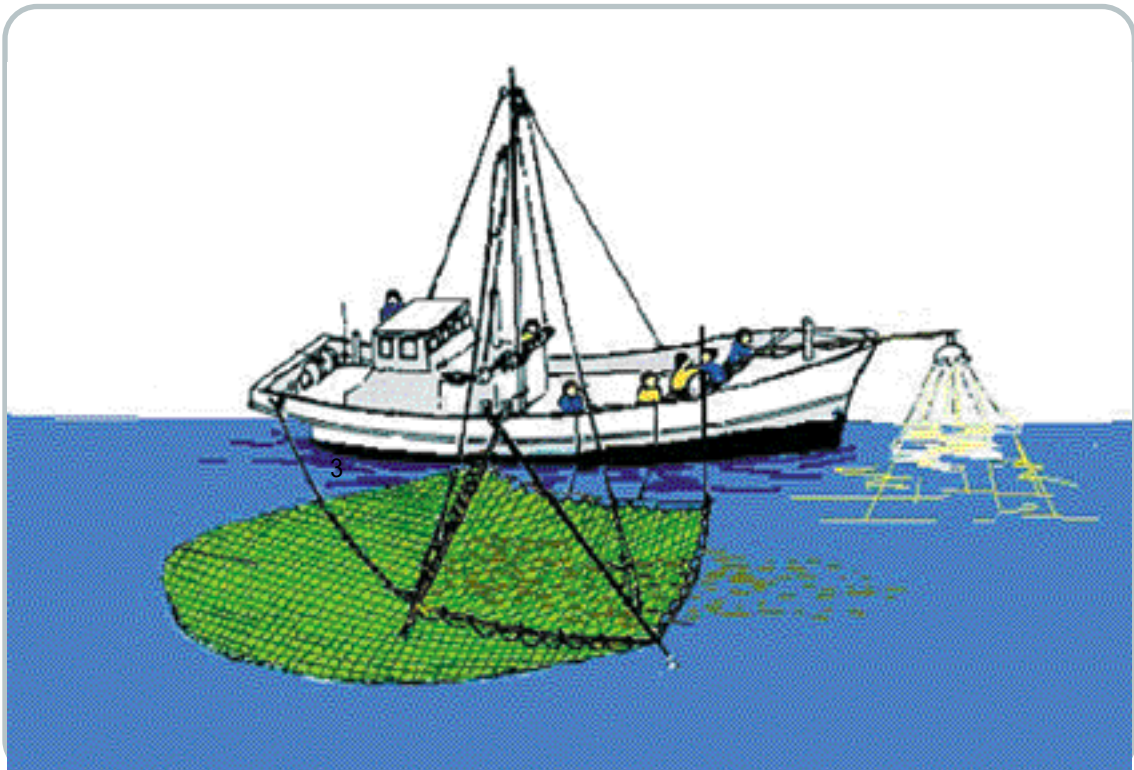
	吳	吳	吳	吳

(吳 : , :)

5-48.

		()	()	()		
		3~6, 9~12	2~7	5~10	120	1
		3~6, 9~12	1~3	2~3	120	1
		4~11	2	3~5	140~160	1
		2~7	7~8	5~7	6.3~55.0mm	1

5-24.



)

1

가

5-49.

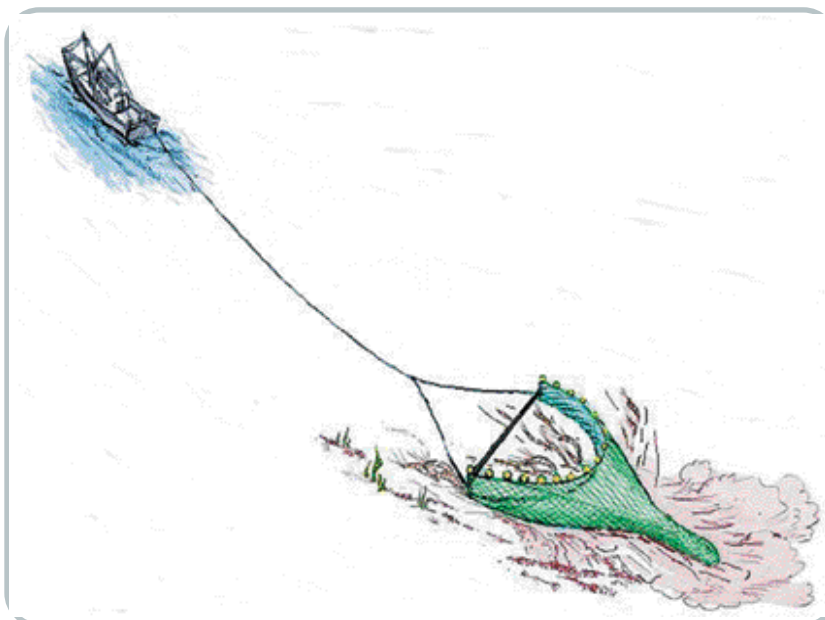
가	吳	吳	吳	吳
			吳	
	吳	吳	吳	吳
			吳	吳

(吳 : , :)

5-50.

		()	()	()		
	,	5~9	4~8	2~4	23.3~33.7mm	1
	, , ,	5~9	3~5	3	50.5mm	1
		2~5, 9~12	2~3	2	23.3~28mm	1
	,	6~4	1~10	2~4	30mm	1

5-25.



)

가 , 가
 , 1 .
 가
 , 가
 가 가 , . 1
 4 .
 , , .

5-51.

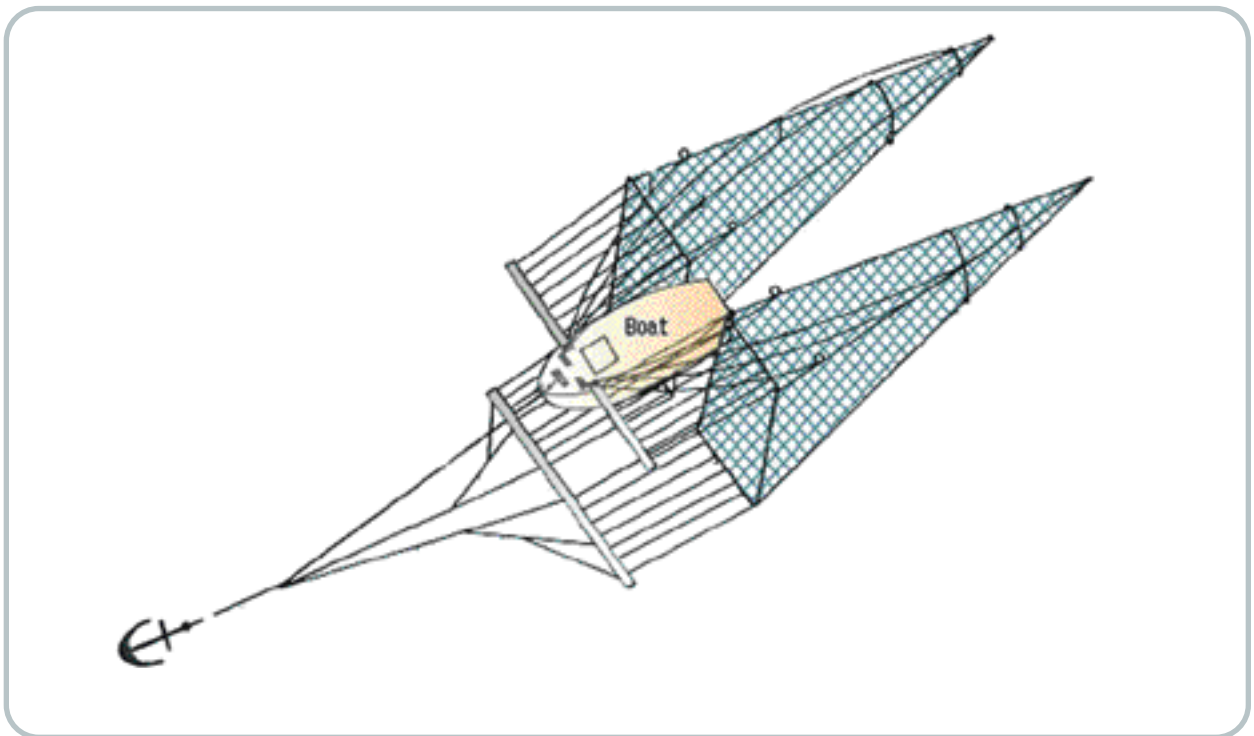
	吳 吳	吳

(吳 : , :)

5-52.

		()	()	()		
·	, ,	2~5, 9~11	10~20	2~3	2.5~101mm	2
	,	3~7	5~6	2~3	12.7~101mm	2

5-26.



)

가 가
가 ()

5~8 .

5-53.

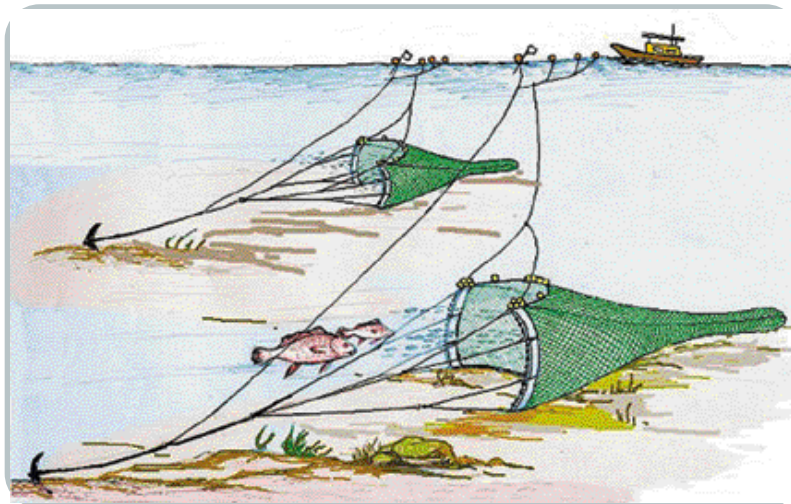
	吳	吳	吳	吳
	吳	吳	吳	吳
	吳	吳	吳	吳
	吳	吳	吳	吳
	吳	吳	吳	吳

5-54.

(吳 : , :)

		()	()	()		
.	, , ,	4~6, 8~11	5~8	4~5	10.4~303mm	15~20
	,	4~11	5~8	3~4	25~303mm	5
	,	4~6, 8~11	6~7	3	25~303mm	5
	, ,	4~7, 9~12	5~7	3~4	25~303mm	5

5-27.



)

2~8

7~8

5-55.

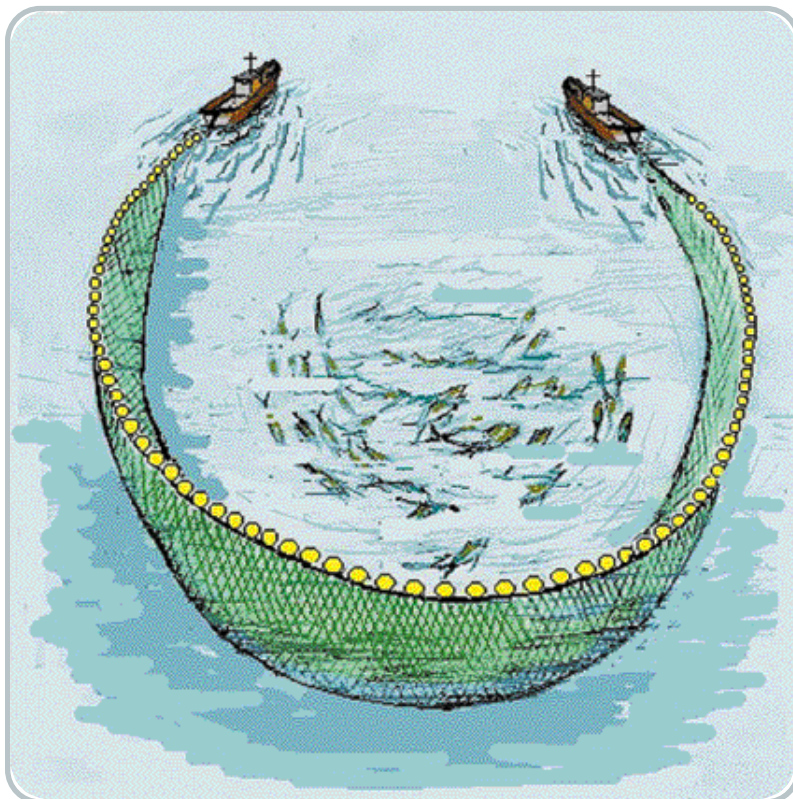
	吳	吳 吳 吳	吳	吳 吳 吳

(吳 : , :)

5-56.

	()	()	()		
	8~11	2~8	5~7	30.3~37.8mm	1
	3~6	7~8	4	30.3mm	1
	7~11	7~8	4	30.3mm	1
	6~11	5~7	6~8	25.6mm	1
	7~11	8	14~15	140	1
	12~2	8	14~15	20~38mm	1

5-28.



)

가 , 2~8 2~4 가

5-57.

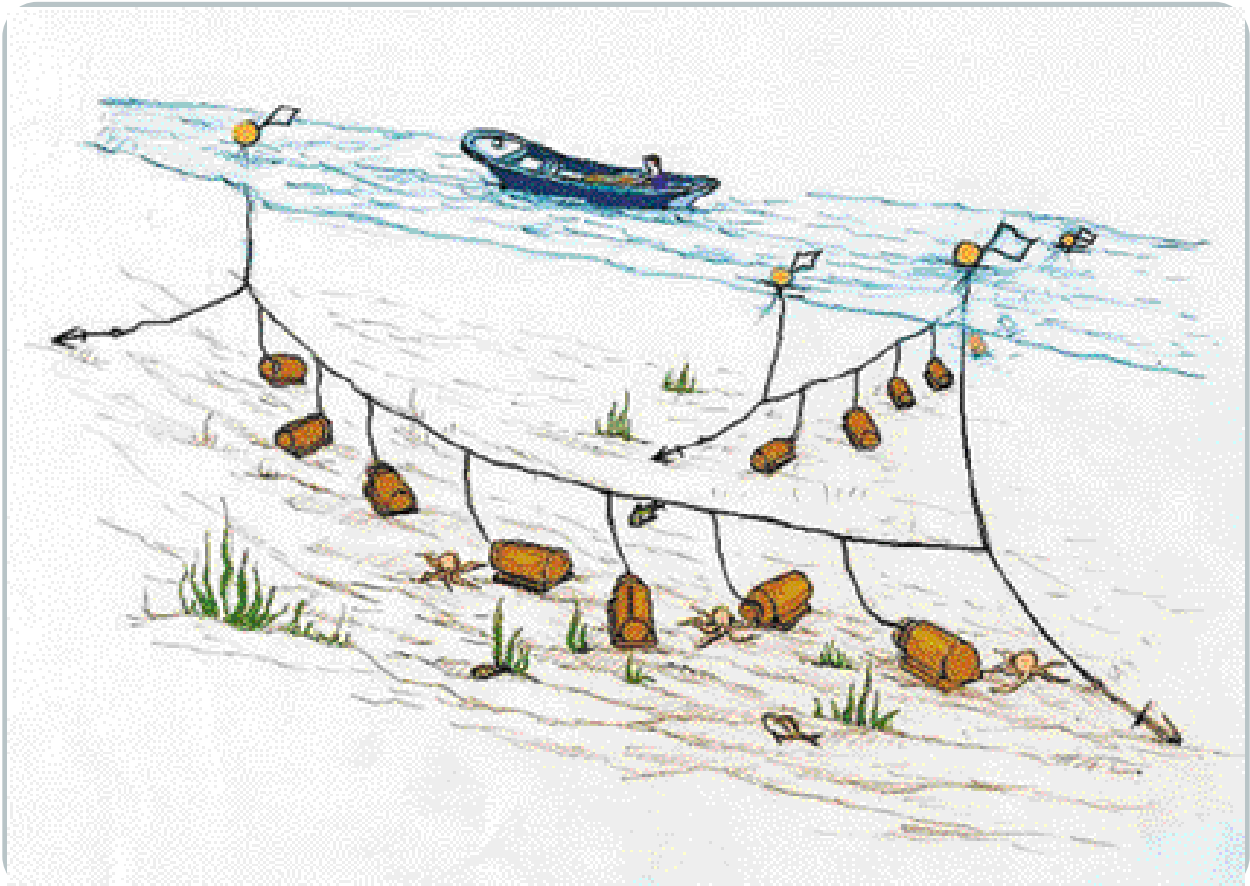
	吳	吳	吳

(吳 : , :)

5-58.

		()	()	()		
	, ,	7~12	2~5	2~4	200~300 /	10
		2~10	2~3	2	80~100 /	10~15
		1~7	6~8	4	300~500 /	10~13

5-29.



)

가

15

5-59.

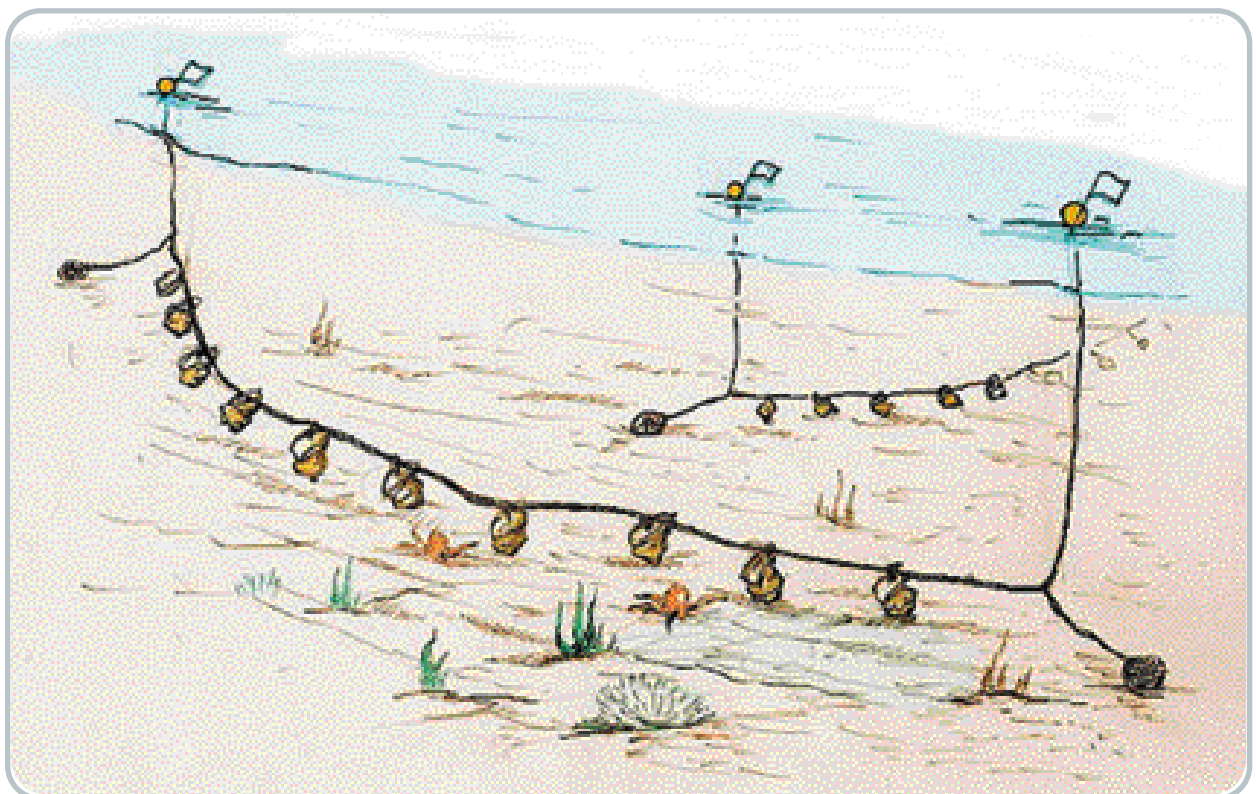
	吳	吳	吳	吳

(吳 : , :)

5-60.

	()	()	()	
.	3~5	3	2~3	4~20 (500~1,000 /)
	11~5	1~3	2~3	4~10 (1,500 /)
	11~5	3~4	3	100 (400 /)
	10~5	1~3	2~3	6~7 (1,000 /)

5-30.



)

1

2

5-61.

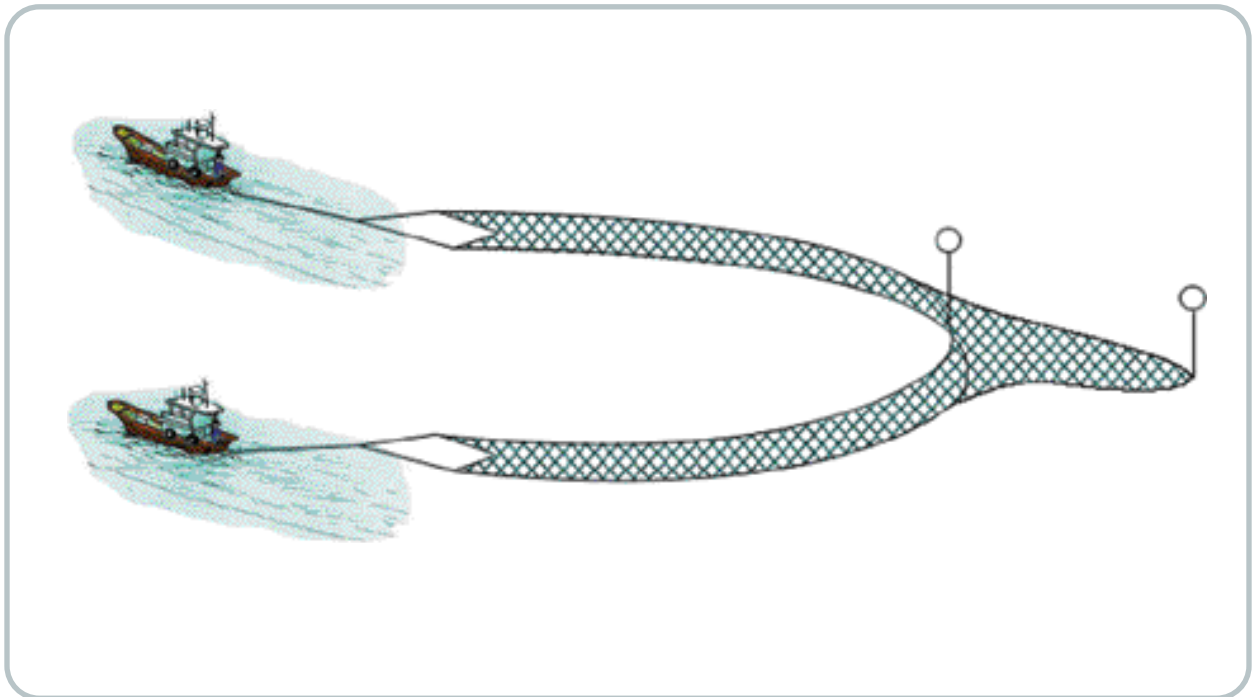
		吳
	吳	

(吳 : , :)

5-62.

		()	()	()		
		, 3~6, 11~1	7×2	2~3/	27.5mm	1
	10~12	4~8	5~10	17mm	1	

5-31.



3)

가)

가

5-63.

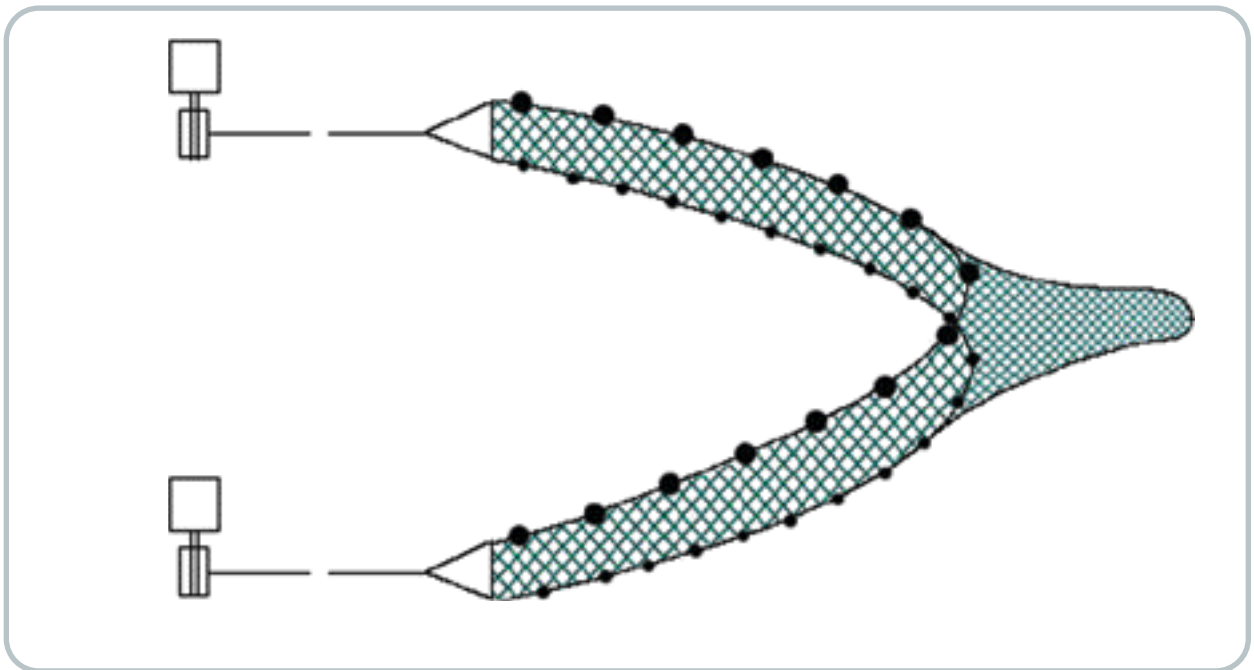
	吳

(吳 : , :)

5-64.

		()	()	()		
		5	4~8	5~10	8.2~10.4mm	1

5-32.



)

가

가

20 m

5-65.

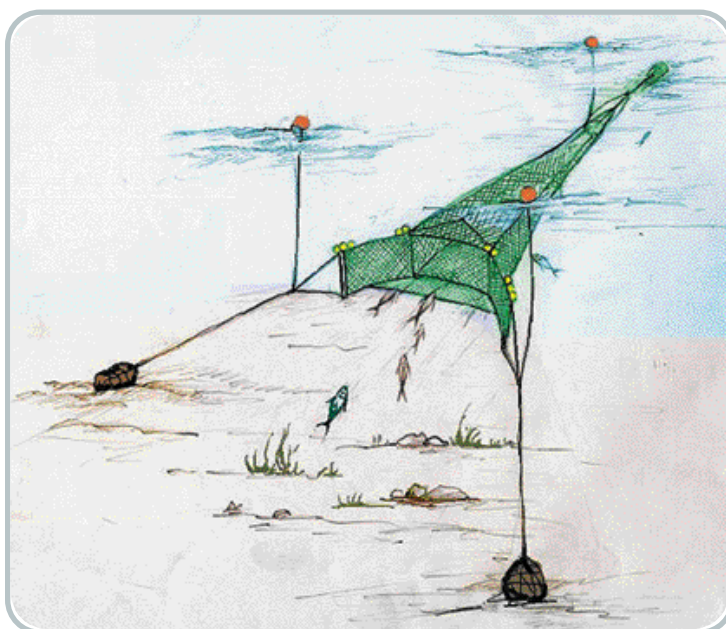
	吴			吴	
	吴				
	吴	吴		吴	吴
	吴		吴		
	吴	吴		吴	
	吴				

(吴 : , :)

5-66.

		()	()	()		
.	, , ,	4~6, 8~11	5~8	4~5	2.5~606mm	15~20
	, ,	4~6, 9~12	3~8	2~3	4.3~151.5mm	5
		1~4	1~2	2	120~150	20
	, ,	4~11	3~6	2~3	5~330mm	5
	,	3~12	1~2	2	12.6mm	2

5-33.



)

가

가

가

40 m

5-67.

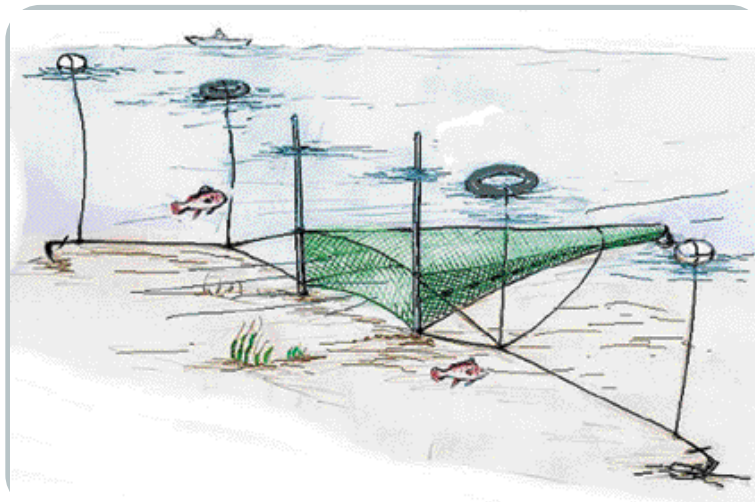
	吳	吳	
	吳	吳	吳
	吳	吳	吳

5-68.

(吳 : , :)

		()	()	()		
	, , ,	3~6	5~8	3~4	2.5~303mm	10
	, ,	9~11	3~5	2	11.2~151.5mm	5~6
	, ,	5~8	2~3	2	15.9~151.5mm	10

5-34.



)

가

가

가

V 가

가 Ny Td 210 3 14.4 mm

가 Ny Td 210 6 50 mm

가

가

5-69.

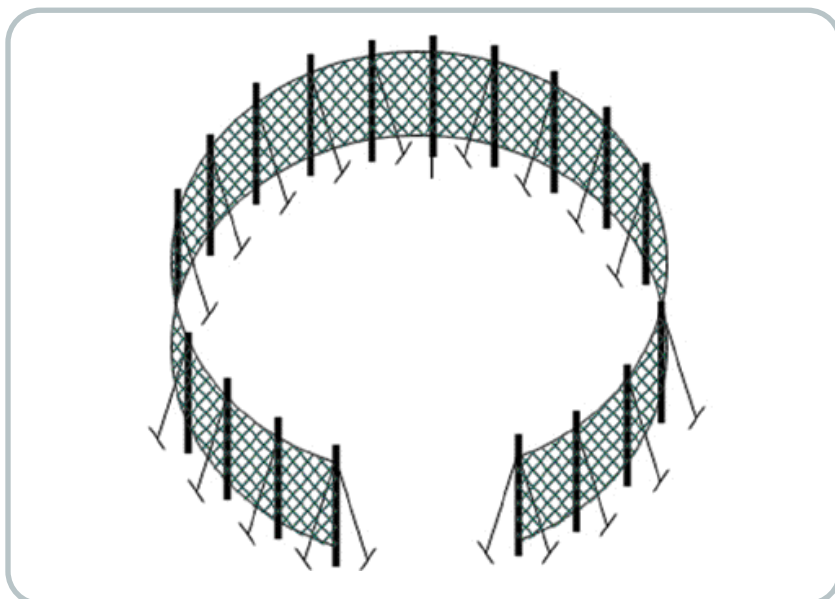
	吳		
	吳		
		吳	
	吳		吳

5-70.

(吳 : , :)

		()	()	()		
	, ,		-	1~2	23.3~43.3mm	1~2
	,	9~12	-	1~2	14.4mm	1
	, ,	5~9	-	2~3	80mm	1

5-35.



)

가
1
1 3

5-71.

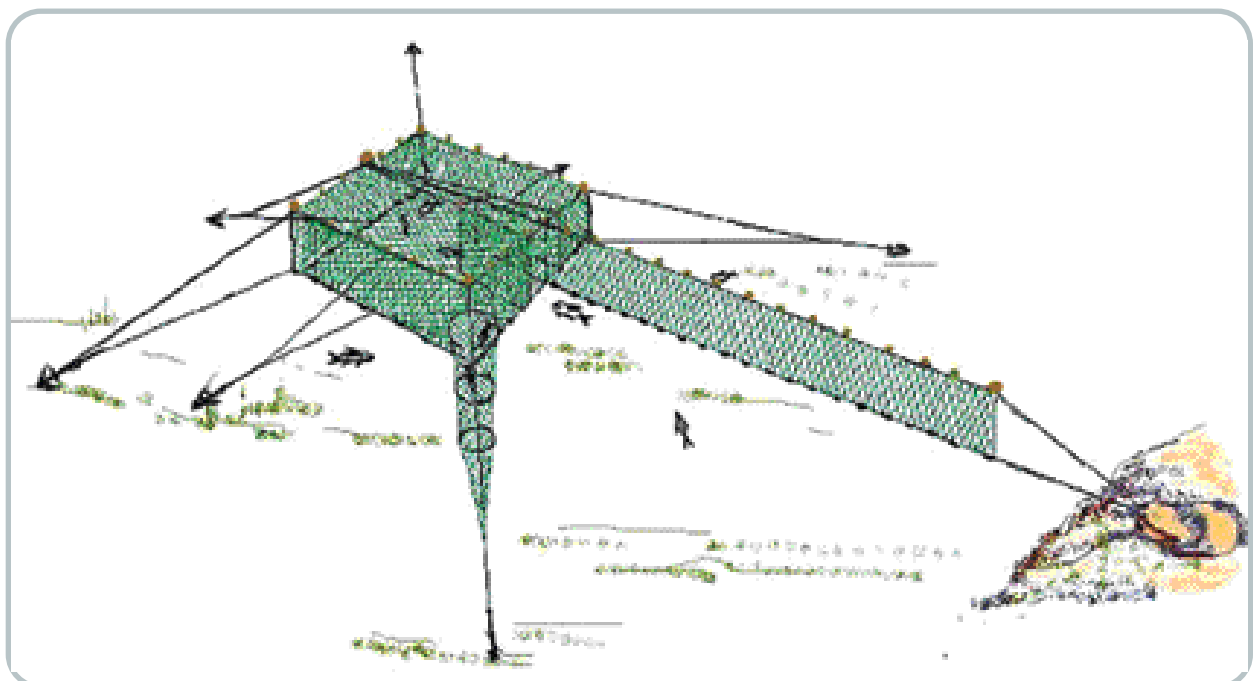
가	吳
	吳

(吳 : , :)

5-72.

		()	()	()		
	,	5~12	1~3	4	30.3~50.5mm	1

5-36.



)

3~5

3~5

5

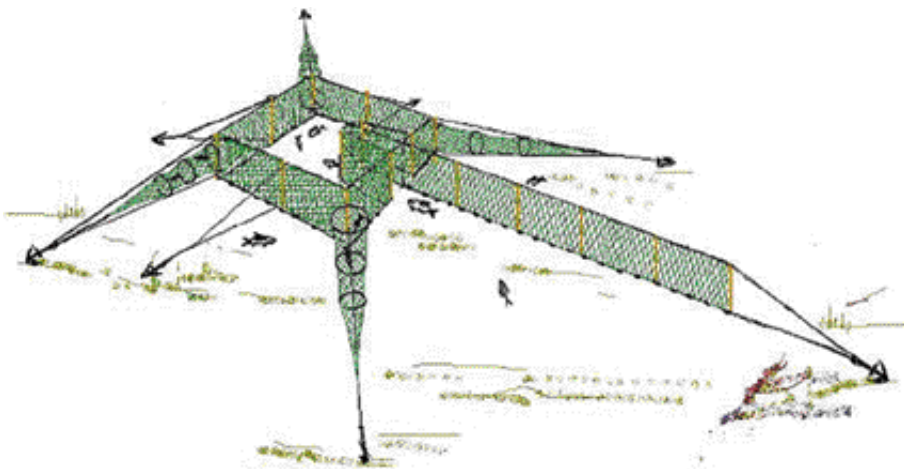
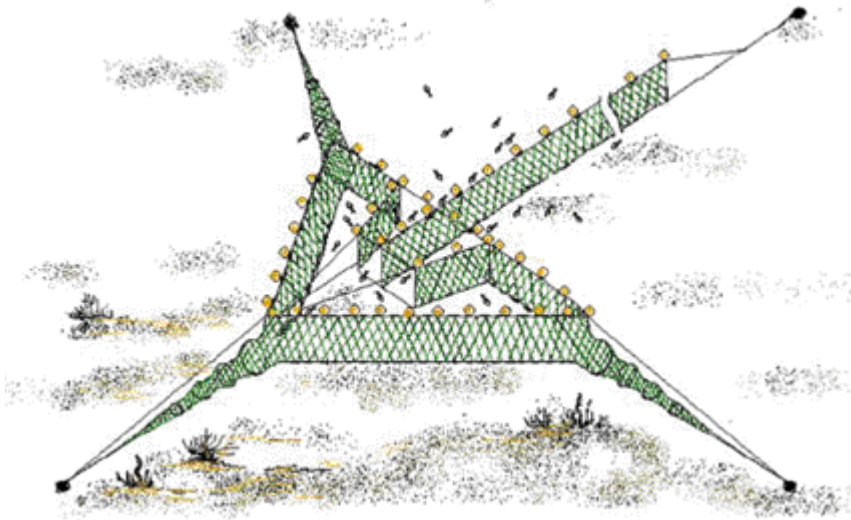
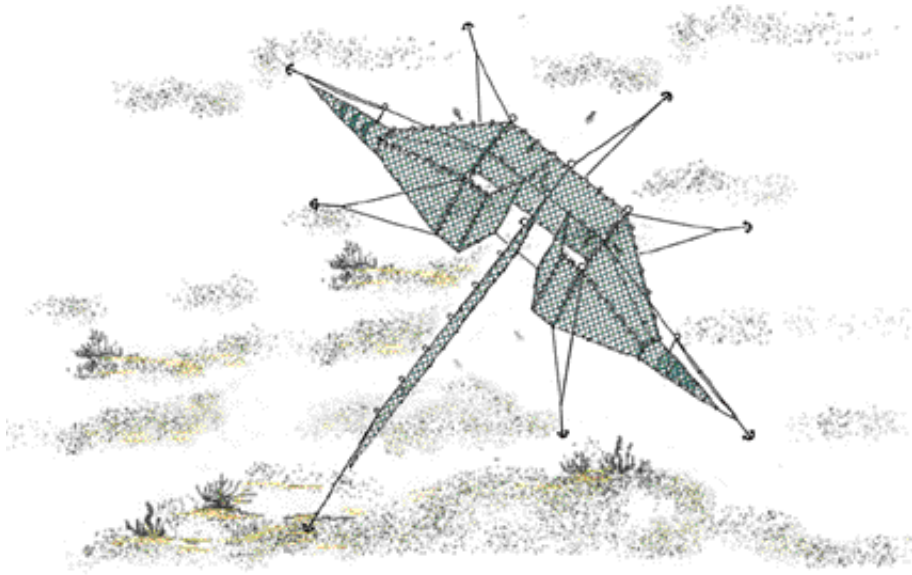
5-73.

가		吳			吳		吳	吳			
									吳		吳
		吳	吳	吳	吳	吳	吳				

(吳 : , :)

5-74.

			()	()	()		
		,	9~2	1~3	2~4	27.5~121.2mm	2~6
			3~10	1~5	1~3	31~121mm	2~3
		, ,	3~8	2	2	18~51mm	1
		, ,	4~6	3~5	3~4	50.5~121.2mm	4~5
			3~10	1~5	1~3	33~121mm	2~3
		, , , , , 가		1~3	2	36mm	1
		,		1	2	50.5~151.5mm	1
		, ,	3~10	~6	3	36~303mm	1
			3~10	1~5	1~3	23~27.5mm	2~3
		,	3~11	1~3	3~4	36mm	1



4)

가)

5
 , , , 가
 900~130m, () 35~50cm PE Td 360 24 50.5 mm
 1~2

5-75.

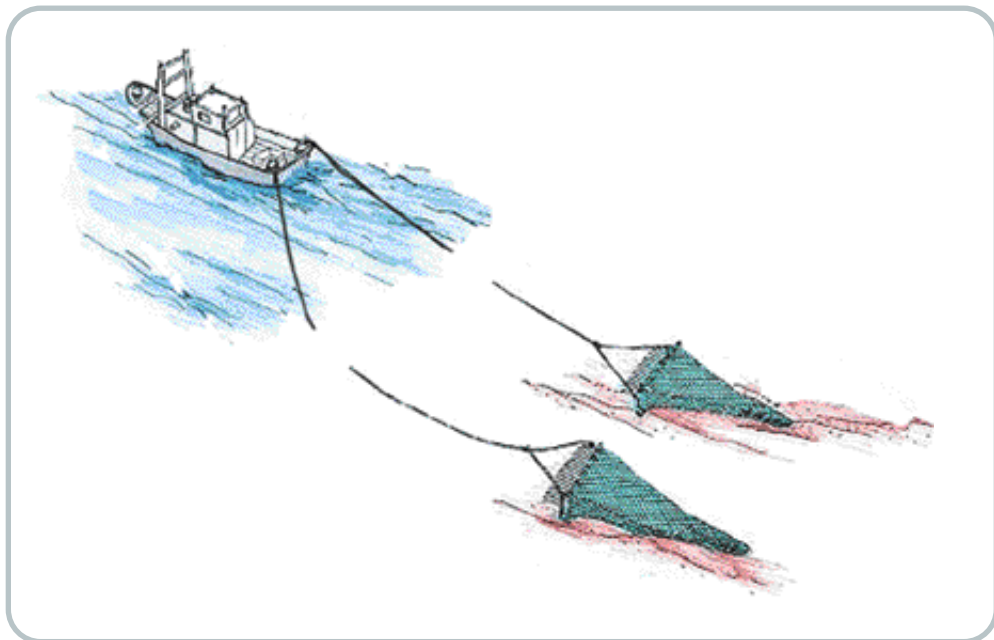
	吳	吳	吳	吳
	吳	吳	吳	吳
	吳	吳	吳	吳
	吳	吳	吳	吳

(吳 : , :)

5-76.

		()	()	()		
	, , ,	4~7, 9~12	5	2~3	30.3mm	1
	,	6~7	5	2~3	50mm	2
	, ,	(6~7)	5	1~2	43~55mm	2
	, ,	(6~7)	5	1~2	32~55mm	2

5-38.



)

가

가

5-77.

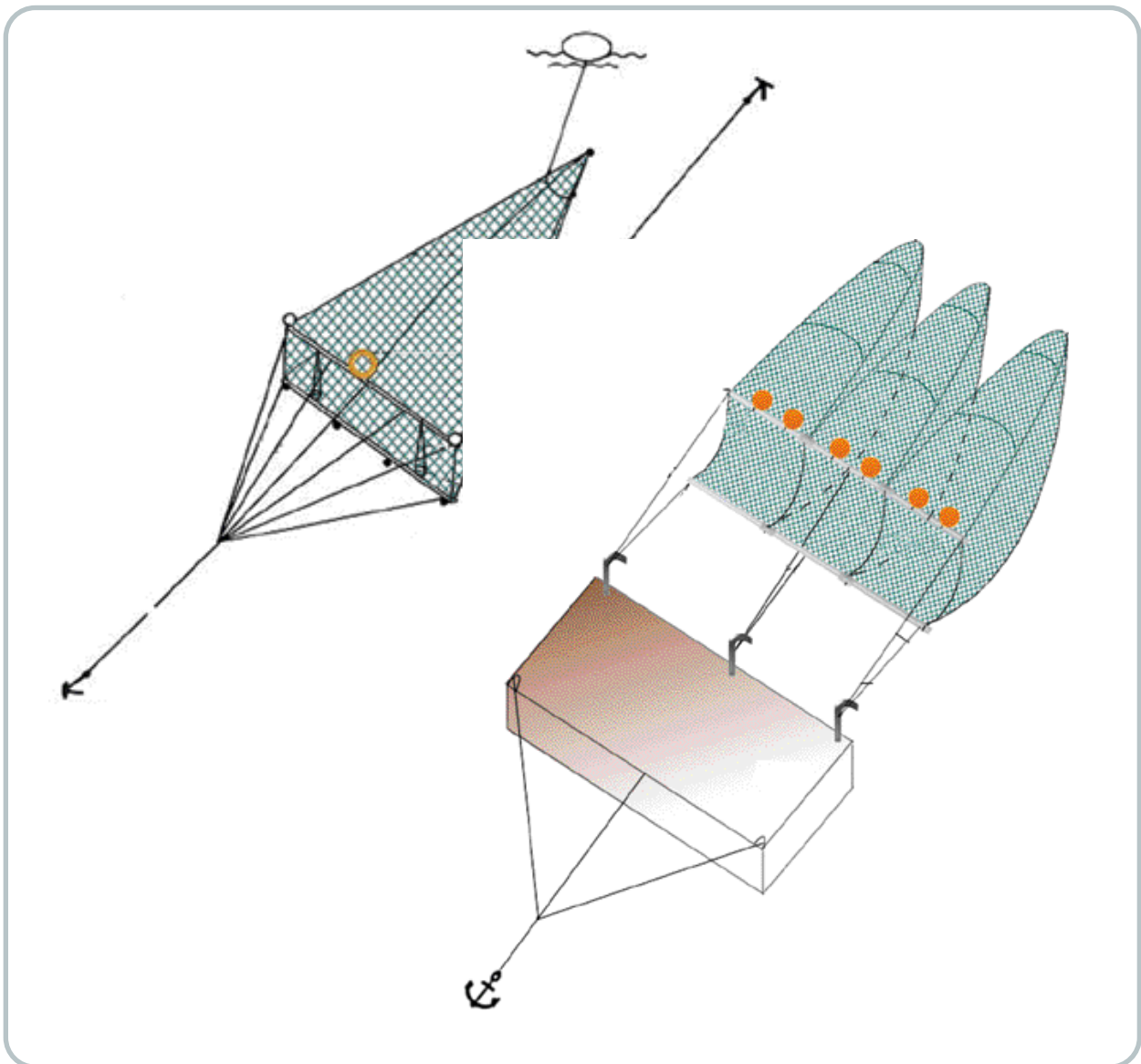
	吳

(吳 : , :)

5-78.

		()	()	()		
		2~5	4~10	2~3	4.3~75.6mm	2

5-39.



5)

가)

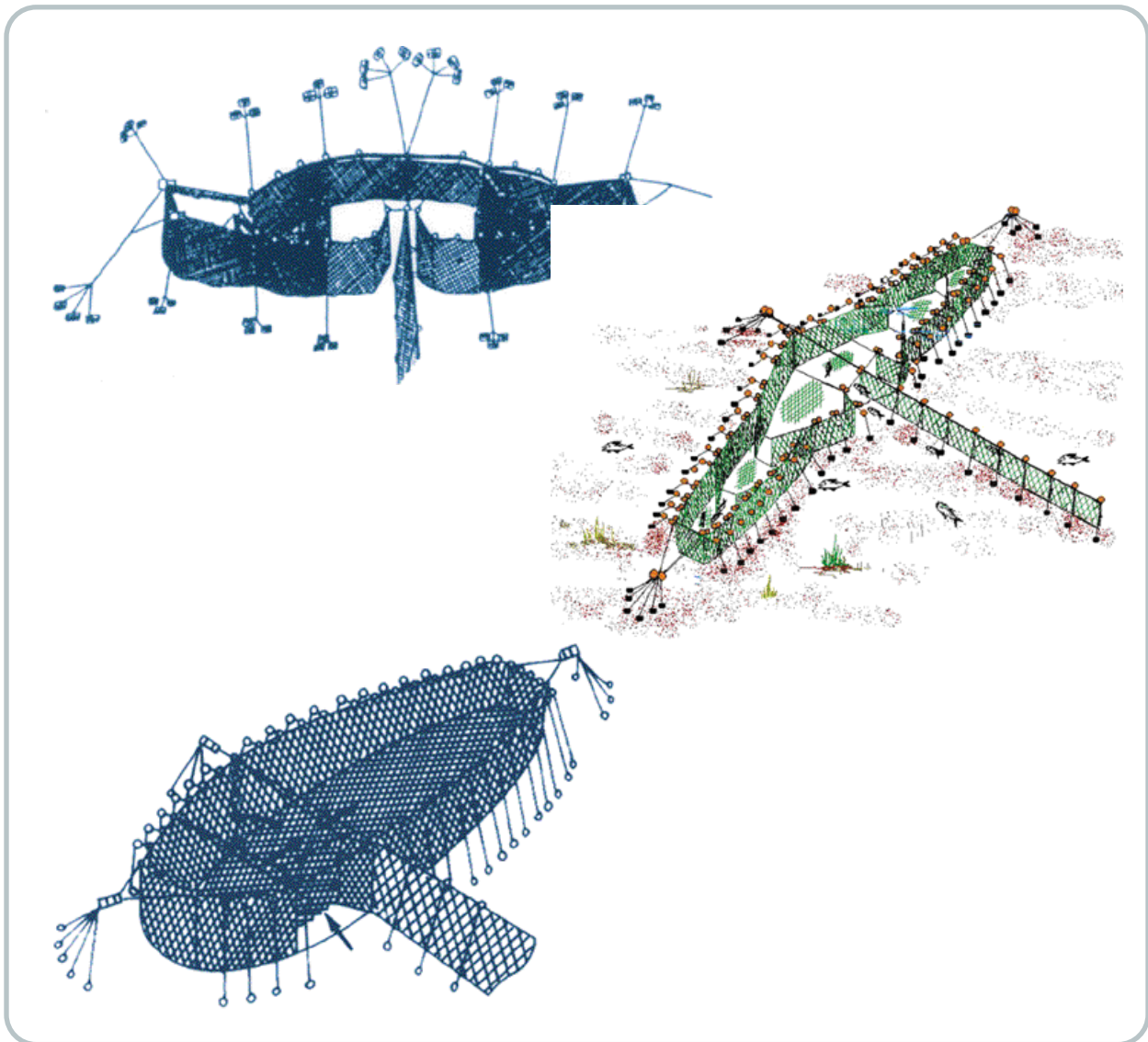
1 1~2

30 m

5-79.

			()	()	()		
			3~10	2~5	5~6	105	1
			3~11	~6	8	36mm	1
			3~12	3~5	5~7	76mm	1

5-40.



)

20~25m
105

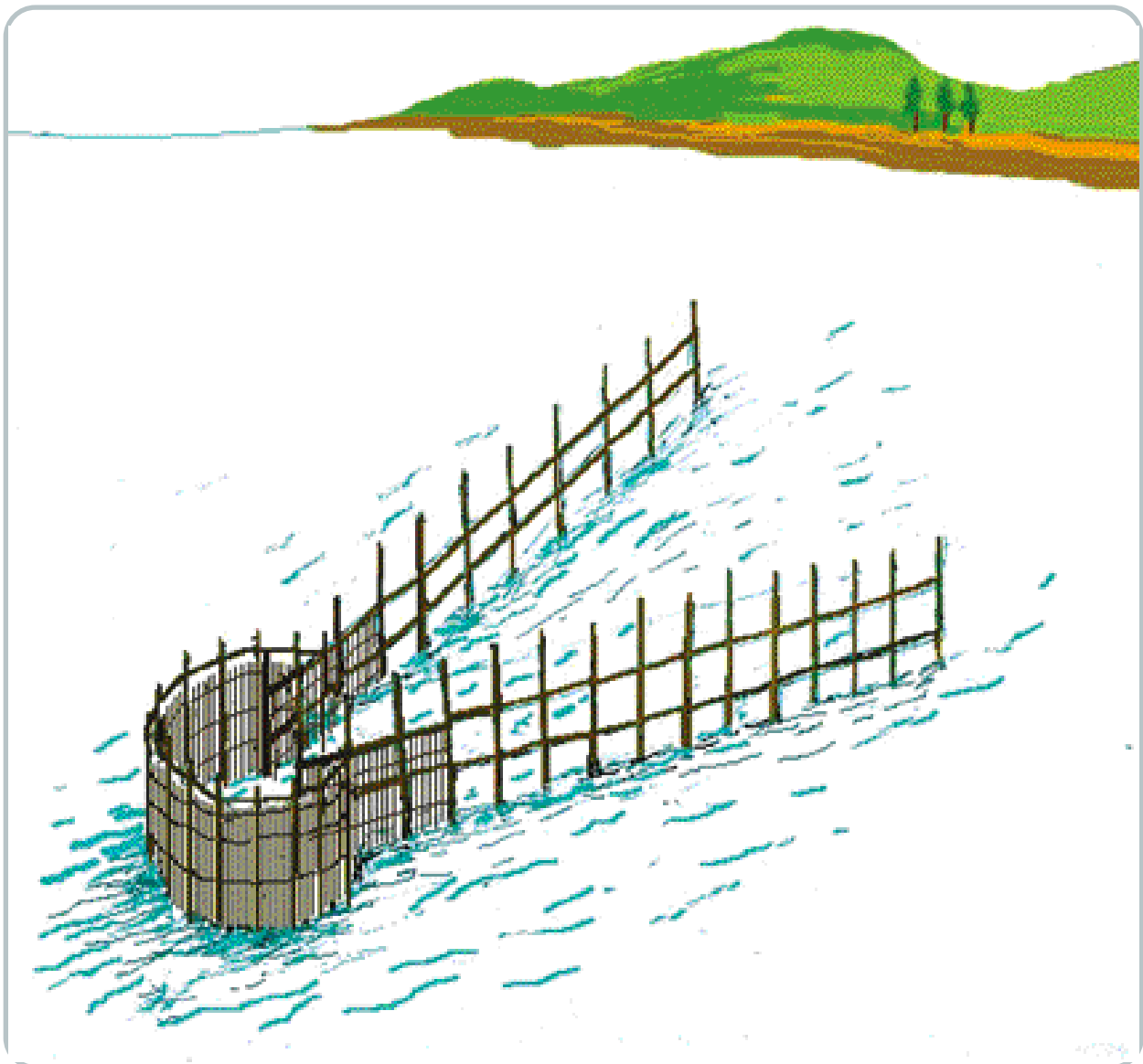
V

가 가

5-80.

		()	()	()		
		5~9	1~2	1~2	105	1
		4~10	0.8~2	2	140~150	1

5-41.



1.

가.

1)

가

, . . . 6-1

17.5% 126 , 718 , 117
16.3%

가

3

가

가

6-1.

(: ,)

			15(2)	4	6			2				23
	3		6					2				15
()			2		6							8
()					12		4	5				21
					13		5					18
				4	8							12
	12			10	5							27
	5			10	6							21
								4	16			20
										2		2
()					3			2				5
()					3			4(1)				7
			6	6							2	14
					5		9	8			14	36
			13	4	7		5	13(2)	7(1)	28		77
										6		6
	4		6	15(2)	8		12	27(1)	4	7	6	89
	2		20	2	6			5			2	37
	5		7	10(2)	7		8(1)	3			2	42
	20		2	29(20)	11	3	3		2	6		76
	19	3	36(9)	17(3)	11	6	2	51(16)	8	6	3	162
	70	3	113	111	117	9	48	126	37	55	29	718
	9.7	0.4	15.7	15.5	16.3	1.3	6.7	17.5	5.2	7.7	4.0	100

6-2.

(:)

					()	()						
		139.00	29.00	79.00	135.00	100.60	129.00	139.00	79.68	78.17	15.00	19.77
		2.97	24.00	18.00	134.00	62.00	56.00	139.00	35.00	48.04	10.00	8.55
		43.73	26.94	64.79	134.75	82.98	84.50	139.00	64.17	60.80	11.20	13.02
		32.26	1.74	21.10	0.50	13.57	35.80	0.00	13.15	7.54	2.17	5.07
		46.00	27.00	24.00	27.00	42.00	25.00	10.00	43.00	46.00	8.00	9.00
		0.70	3.00	2.00	8.00	3.00	13.00	5.00	3.00	7.00	2.00	3.00
		10.60	12.17	8.79	15.50	23.38	18.50	7.80	19.60	22.20	4.20	6.25
		8.16	6.49	6.99	7.37	15.69	3.87	1.79	11.27	11.78	2.68	3.20

(:)

		()	()									
		39.00	80.00	19.00	108.00	74.00	12.00	93.00	7.93	99.17	110.00	29.00
		39.00	39.00	11.00	11.00	9.16	9.16	8.55	2.97	8.60	9.16	0.60
		39.00	56.43	14.82	63.48	25.91	9.97	34.75	4.13	46.65	46.91	4.00
		0.00	21.43	3.25	30.64	12.70	1.02	20.28	0.90	29.86	28.45	4.33
		10.00	10.00	17.00	22.00	30.00	19.00	30.00	16.00	25.00	23.00	30.00
		7.00	1.00	0.70	1.00	1.00	10.00	1.00	1.00	3.70	1.00	0.60
		8.50	5.25	6.97	9.42	7.16	14.00	9.81	5.97	9.51	10.95	7.65
		2.12	4.03	5.95	6.34	4.83	3.58	7.14	3.96	6.22	6.01	4.78

)

6-3

79,045.74 (145,334.91
), (1,332,191.31) (81,380.84) , 가
 (0.00) . 가가
 (2,052,345.16) , 가가
 (0.00) .

561,392.03

(3,660,094.15), (1,569,280.87),
 (1,413,648.00) (1,385,490.86) ,
 가 (104,800.00) . 가가
 (2,834,579.84) , 가가 (104,092.76
) . 90% .
 40,948.37 149,555.16 ,
 가 1,538,300.00 .
 133,377.84 285,807.80 , 가
 2,037,389.00 .

6-3.

(:)

		7,594,046.00	0.96	7,706,496.00	1.00
		0.00	0.00	5,400.00	0.04
		79,045.74	0.10	561,392.03	0.90
		401,001.04	0.15	891,868.22	0.15
		1,000,000.00	0.46	3,610,000.00	1.00
		0.00	0.00	70,697.00	0.54
		145,334.91	0.10	1,569,280.87	0.90
		260,835.65	0.12	1,218,421.74	0.12
		110,000.00	0.39	1,514,720.00	1.00
		0.00	0.00	61,200.00	0.61
		29,615.38	0.09	647,043.08	0.91
		32,433.36	0.13	494,824.63	0.13

()		158,000.00	0.07	2,407,500.00	1.00
		8,000.00	0.00	291,640.00	0.93
		56,687.50	0.05	1,413,648.00	0.95
		50,657.77	0.03	884,721.90	0.03
()		60,000.00	0.24	1,323,800.00	1.00
		200.00	0.00	37,000.00	0.76
		22,338.89	0.10	433,144.44	0.90
		15,831.47	0.08	420,140.56	0.08
		7,594,046.00	0.50	7,706,496.00	0.89
		160,696.00	0.11	325,319.00	0.50
		1,332,191.31	0.24	3,660,094.15	0.76
		2,052,345.16	0.12	2,834,579.84	0.12
		150,000.00	0.17	2,939,500.00	1.00
		1,500.00	0.00	35,000.00	0.83
		39,014.29	0.07	1,385,490.86	0.93
		55,352.82	0.06	1,281,761.82	0.06
		105,000.00	0.36	729,696.00	1.00
		0.00	0.00	30,000.00	0.64
		31,386.96	0.10	325,746.09	0.90
		28,886.71	0.09	213,222.46	0.09
		315,000.00	0.71	1,039,700.00	1.00
		0.00	0.00	25,000.00	0.29
		47,077.78	0.14	394,972.22	0.86
		73,978.48	0.21	295,138.26	0.21
		0.00	0.00	158,900.00	1.00
		0.00	0.00	105,400.00	1.00
		0.00	0.00	141,700.00	1.00
		0.00	0.00	24,468.07	0.00
		6,000.00	0.03	223,000.00	1.00
		0.00	0.00	13,000.00	0.97
		1,500.00	0.01	135,475.00	0.99
		3,000.00	0.01	104,092.76	0.01
()		41,000.00	0.04	1,130,000.00	1.00
		0.00	0.00	5,400.00	0.96
		10,400.00	0.01	424,440.00	0.99
		17,756.69	0.02	575,530.32	0.02
()		23,000.00	0.17	1,232,100.00	0.99
		8,000.00	0.01	40,000.00	0.83
		15,000.00	0.08	667,630.00	0.92
		6,191.39	0.07	582,223.20	0.07
		400,000.00	0.60	695,000.00	1.00
		0.00	0.00	40,000.00	0.40
		50,846.15	0.11	284,846.15	0.89
		106,802.66	0.16	180,575.51	0.16

6-4

	122,030.79	.			.
	(1,711,474.00)	,		(311,375.00)	,
(266,878.26)			(137,621.74)	.	가가
	(2,285,604.16)	,	가가		(12,006.94
)	.				
	116,475.88	,			
가	(377,920.92)	,		(232,595.65)	,
(215,538.46)	(150,000.00)			(128,041.47)	.
가가			(393,867.35)	,	가
	(13,416.41)	.			
			12,170.44	28,967.84	,
가 가	200,000.00	.			
77,248.84	152,961.63	,			가
1,245,000.00	.				

		7,344,720.00	1.00	1,146,540.00	1.00
		0.00	0.00	0.00	0.00
		122,030.79	0.45	116,475.88	0.55
		473,007.00	0.43	172,965.26	0.43
		1,226,000.00	1.00	854,000.00	1.00
		0.00	0.00	0.00	0.00
		266,878.26	0.49	232,595.65	0.51
		408,879.51	0.44	303,212.45	0.44
		300,000.00	1.00	600,000.00	1.00
		0.00	0.00	0.00	0.00
		59,923.08	0.38	215,538.46	0.62
		101,201.50	0.45	207,162.02	0.45
	()	723,000.00	1.00	159,000.00	1.00
		0.00	0.00	0.00	0.00
		311,375.00	0.83	44,000.00	0.17
		255,182.81	0.35	68,391.73	0.35
	()	200,000.00	1.00	400,000.00	1.00
		0.00	0.00	0.00	0.00
		45,055.56	0.63	78,722.22	0.37
		70,285.53	0.46	131,120.87	0.46
		7,344,720.00	1.00	1,146,540.00	1.00
		0.00	0.00	0.00	0.00
		1,711,474.00	0.67	377,920.92	0.33
		2,285,604.16	0.40	393,867.35	0.40
		240,000.00	1.00	580,000.00	0.71
		2,000.00	0.29	0.00	0.00
		103,285.71	0.80	150,000.00	0.20
		101,233.58	0.34	258,134.33	0.34
		674,000.00	1.00	400,000.00	1.00
		0.00	0.00	0.00	0.00
		137,621.74	0.60	74,465.22	0.40
		173,402.01	0.37	107,360.38	0.37
		102,100.00	1.00	307,687.00	1.00
		0.00	0.00	0.00	0.00
		26,705.56	0.32	77,682.61	0.68
		37,025.99	0.35	90,414.69	0.35
		0.00	0.00	50,000.00	1.00
		0.00	0.00	0.00	1.00
		0.00	0.00	25,000.00	1.00
		0.00	0.00	20,816.66	0.00
		27,000.00	1.00	100,000.00	1.00
		0.00	0.00	0.00	0.00
		11,125.00	0.32	66,750.00	0.68
		13,418.74	0.47	47,140.75	0.47

()		178,000.00	1.00	30,000.00	0.14
		0.00	0.86	0.00	0.00
		45,600.00	0.93	6,000.00	0.07
		77,115.50	0.10	13,416.41	0.10
()		51,000.00	1.00	386,500.00	1.00
		0.00	0.00	0.00	0.00
		29,428.57	0.48	150,357.14	0.52
		19,423.84	0.49	157,023.01	0.49
		80,000.00	0.67	300,000.00	1.00
		0.00	0.00	0.00	0.33
		10,769.23	0.12	85,138.46	0.88
		23,965.79	0.22	85,004.60	0.22
		500,000.00	1.00	520,000.00	1.00
		0.00	0.00	0.00	0.00
		98,035.57	0.44	93,886.22	0.56
		138,198.22	0.42	122,955.49	0.42
		333,000.00	1.00	792,000.00	1.00
		0.00	0.00	0.00	0.00
		43,916.67	0.39	148,875.00	0.61
		73,886.19	0.42	193,232.76	0.42
		30,000.00	0.43	80,000.00	1.00
		0.00	0.00	0.00	0.57
		5,833.33	0.13	34,500.00	0.87
		12,006.94	0.19	27,811.87	0.19
		818,900.00	1.00	514,000.00	1.00
		0.00	0.00	0.00	0.00
		106,458.13	0.48	102,231.25	0.52
		183,597.88	0.43	134,228.65	0.43
		190,000.00	1.00	150,000.00	1.00
		0.00	0.00	0.00	0.00
		37,696.97	0.67	23,044.39	0.33
		42,270.32	0.43	41,404.81	0.43
		340,000.00	1.00	500,000.00	1.00
		0.00	0.00	0.00	0.00
		26,336.37	0.25	128,041.47	0.75
		73,994.58	0.37	139,229.32	0.37
		440,000.00	1.00	630,000.00	1.00
		0.00	0.00	0.00	0.00
		51,062.27	0.35	113,017.14	0.65
		82,486.98	0.40	147,287.96	0.40
		200,000.00	1.00	1,245,000.00	1.00
		0.00	0.00	0.00	0.00
		12,170.44	0.31	77,248.84	0.69
		28,967.84	0.40	152,961.63	0.40

)

6-5

515,847.45

(4,350,978.51), (2,734,009.15

), (1,185,189.06) (1,036,673.84) , 가

(73,583.75) . 가가

(3,162,262.81) ,가 (56,191.64) .

467,306.72 ,

(4,672,490.79), (2,083,984.41),

(1,148,749.86) (829,599.00) .

가가 (3,097,893.75) ,가

(56,191.64) .

47,601.12 ,

(650,024.74), (207,074.75), (77,667.33

), (66,675.76), (60,398.80)

(52,934.22) , (- 40,441.80)

(- 321,512.28) . 가가

(1,302,694.62) , 가가 (14,498.64) .

117,128.78 226,721.80 ,

가 1,807,863.30 .

79,692.15 96,883.19 , 가 501,080.00

. 37,176.65 178,177.21 ,

가 1,502,879.18 .

6-5.

(:)

		9,879,188.97	9,732,985.74	3,149,800.00
		5,250.00	4,924.00	(3,984,570.60)
		515,847.45	467,306.72	47,601.12
		932,131.68	929,144.19	312,503.34
		2,369,789.00	2,120,143.00	457,350.00
		128,962.00	138,570.00	(762,325.20)
		1,185,189.06	1,148,749.86	36,439.20
		735,603.03	710,296.19	330,471.82
		980,000.00	1,133,480.00	287,800.00
		20,000.00	16,980.00	(157,317.50)
		460,750.93	450,830.43	9,920.50
		323,018.23	333,786.47	118,488.45
		5,090,080.00	2,704,550.00	3,149,800.00
()		1,785,752.15	1,313,480.00	(88,155.00)
		2,734,009.15	2,083,984.41	650,024.74
		1,021,869.26	469,021.07	1,097,922.56
		949,569.60	1,156,973.00	332,979.00
()		37,205.00	25,146.00	(333,021.31)
		377,760.51	418,202.30	(40,441.80)
		255,119.89	306,019.59	156,769.20
		9,879,188.97	9,732,985.74	841,533.67
		795,812.15	729,922.95	(3,984,570.60)
		4,350,978.51	4,672,490.79	(321,512.28)
		3,162,262.81	3,097,893.75	1,302,694.62
		2,406,677.10	2,137,414.71	1,062,077.11
		87,733.07	43,399.00	(114,587.05)
		1,036,673.84	829,599.09	207,074.75
		1,014,734.15	972,847.29	316,665.88
		830,000.00	665,850.00	173,017.52
		14,860.00	15,242.00	(152,400.00)
		307,065.22	254,131.00	52,934.22
		216,284.07	180,676.65	76,700.72
		620,000.00	632,580.00	138,452.67
		39,000.00	21,190.00	(89,900.00)
		342,162.45	332,271.82	9,890.63
		173,670.63	176,580.94	42,872.19
		170,000.00	138,775.00	37,750.00
		20,000.00	17,200.00	2,800.00
		109,247.40	96,583.80	12,663.60
		58,274.32	48,603.76	14,498.64
		150,000.00	71,250.00	78,750.00
		20,000.00	17,812.00	(26,150.00)
		73,583.75	50,831.75	22,752.00
		62,806.37	23,628.98	45,208.58

()		487,824.70	413,120.00	91,674.70
		43,987.00	19,116.00	22,637.00
		220,785.56	174,245.80	46,539.76
		236,824.69	210,403.28	29,020.70
()		591,507.10	528,346.00	417,907.47
		28,000.00	31,957.00	(56,383.90)
		303,407.57	243,008.78	60,398.80
		260,219.18	237,903.19	161,559.56
		1,090,900.00	884,008.00	206,892.00
		22,000.00	25,020.00	(304,437.42)
		270,474.71	251,916.02	18,558.70
		251,656.37	222,857.73	109,979.65
		2,591,389.00	1,005,774.00	2,301,306.00
		15,086.00	18,498.50	(571,365.65)
		408,280.38	348,813.72	51,301.05
		400,395.75	267,502.41	362,808.97
		1,550,000.00	935,250.00	614,750.00
		6,106.25	4,924.00	(193,120.00)
		363,568.33	296,892.57	66,675.76
		247,536.09	198,411.24	142,035.94
		150,000.00	163,400.00	34,783.00
		11,000.00	12,350.00	(13,400.00)
		83,500.00	72,243.67	11,256.33
		56,191.64	58,557.94	20,001.37
		1,618,200.00	1,512,020.00	1,094,102.00
		5,250.00	10,637.00	(461,310.46)
		358,637.31	280,969.99	77,667.33
		299,237.14	231,618.78	184,623.05
		366,393.00	305,077.00	117,172.61
		14,843.50	5,067.74	(4,665.00)
		151,518.77	109,524.94	41,993.83
		95,296.90	73,852.18	28,708.22
		1,312,370.40	1,346,266.00	547,756.40
		22,420.00	18,967.00	(268,419.00)
		360,526.61	313,978.32	46,548.29
		356,684.53	307,357.34	133,814.97
		995,836.79	798,121.00	381,800.00
		9,700.00	13,171.00	(481,561.00)
		295,624.89	267,425.84	28,199.05
		226,699.12	213,478.00	126,098.33
		1,807,863.30	501,080.00	1,502,879.18
		215.00	86.00	(300,246.50)
		117,128.78	79,692.15	37,176.65
		226,721.80	96,883.19	178,177.21

												가	
		4,347,990.00	0.97	3,021,150.00	0.87	1,094,500.00	0.85	131,081.41	0.13	368,313.23	0.49	580,000.00	0.78
		214.43	0.00	170.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	130.00	0.00
		213,087.31	0.42	161,247.64	0.39	30,909.24	0.06	3,016.75	0.01	14,717.39	0.03	30,186.58	0.08
		447,742.88	0.16	279,862.36	0.16	83,913.39	0.07	10,202.28	0.01	38,379.98	0.04	53,460.48	0.10
		1,101,670.00	0.77	1,062,000.00	0.54	119,819.00	0.00	36,000.00	0.06	45,000.00	0.08	237,700.00	0.16
		47,300.00	0.30	24,000.00	0.06	0.00	0.15	0.00	0.00	3,200.00	0.01	980.00	0.01
		515,443.00	0.45	465,848.04	0.40	52,828.87	0.19	10,399.13	0.01	21,392.74	0.02	79,649.60	0.07
		318,311.11	0.11	334,024.27	0.12	39,384.01	0.02	11,695.18	0.02	14,852.27	0.02	69,518.53	0.04
		906,200.00	0.97	234,000.00	0.38	48,000.00	0.08	10,000.00	0.02	30,000.00	0.05	65,817.50	0.30
		9,320.00	0.32	3,000.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	3,060.00	0.00
		281,763.57	0.54	114,662.86	0.27	9,236.71	0.03	2,521.43	0.01	9,942.86	0.02	35,236.83	0.12
		290,639.05	0.17	85,464.44	0.10	13,183.09	0.03	3,506.52	0.01	11,933.71	0.02	20,330.27	0.09
	()	1,951,700.00	0.72	637,571.00	0.29	203,600.00	0.11	59,000.00	0.02	118,000.00	0.06	110,155.00	0.05
		727,000.00	0.54	296,680.00	0.14	71,430.09	0.04	0.00	0.00	12,500.00	0.00	32,500.00	0.01
		1,252,101.74	0.60	444,488.92	0.22	127,460.71	0.06	21,779.99	0.01	79,310.40	0.04	60,616.68	0.03
		364,016.10	0.06	122,416.51	0.05	45,437.77	0.02	19,394.66	0.01	33,956.64	0.02	30,446.47	0.01
	()	559,582.00	0.72	453,173.00	0.54	57,676.00	0.38	21,200.00	0.05	49,992.00	0.07	66,190.00	0.11
		9,150.00	0.25	10,478.00	0.17	0.00	0.00	0.00	0.00	1,800.00	0.01	1,850.00	0.00
		214,000.42	0.48	139,839.75	0.35	16,987.34	0.06	3,416.05	0.01	16,655.51	0.05	21,963.84	0.05
		169,756.99	0.14	121,277.89	0.11	15,788.71	0.08	5,670.91	0.01	13,776.60	0.02	22,809.76	0.03
		4,347,990.00	0.59	3,021,150.00	0.45	1,094,500.00	0.29	131,081.41	0.02	368,313.23	0.07	385,324.80	0.05
		377,005.00	0.30	182,676.00	0.08	60,373.00	0.02	0.00	0.00	0.00	0.00	2,500.00	0.00
		2,132,087.40	0.45	1,325,577.29	0.29	375,729.63	0.10	39,431.78	0.01	181,877.00	0.04	136,762.87	0.03
		1,501,925.98	0.09	951,265.37	0.11	306,617.91	0.09	40,715.05	0.01	140,204.23	0.02	142,809.50	0.01
		1,241,478.99	0.58	623,100.00	0.64	386,500.00	0.38	24,300.00	0.01	63,355.40	0.04	110,208.00	0.13
		12,700.00	0.20	12,209.00	0.22	3,997.98	0.05	0.00	0.00	0.00	0.00	1,750.00	0.02
		374,700.82	0.34	231,457.85	0.38	96,489.92	0.16	5,775.65	0.00	22,434.94	0.02	39,132.81	0.07
		490,375.11	0.13	256,548.07	0.17	134,693.28	0.13	9,133.81	0.00	28,681.23	0.02	47,709.32	0.03
		214,000.00	0.79	463,392.00	0.74	45,000.00	0.09	3,600.00	0.02	170,000.00	0.28	34,335.00	0.15
		7,300.00	0.13	3,824.00	0.15	595.00	0.02	0.00	0.00	540.00	0.00	1,500.00	0.00
		84,093.47	0.36	124,800.57	0.46	13,792.56	0.05	1,455.30	0.01	13,940.76	0.05	14,832.87	0.05
		53,214.55	0.16	120,893.69	0.18	11,507.58	0.02	1,201.95	0.00	31,177.20	0.05	10,435.57	0.04
		260,000.00	0.78	330,000.00	0.57	27,158.00	0.08	7,700.00	0.02	21,120.00	0.16	51,985.00	0.15
		5,860.00	0.27	11,300.00	0.06	1,400.00	0.00	0.00	0.00	910.00	0.01	1,250.00	0.00
		144,498.48	0.43	141,808.48	0.42	10,681.23	0.04	1,796.76	0.01	12,000.44	0.04	20,310.28	0.05
		79,203.27	0.15	111,698.92	0.17	9,696.40	0.03	2,078.74	0.01	6,421.55	0.03	14,359.83	0.03
		71,200.00	0.51	70,000.00	0.58	0.00	0.00	100.00	0.00	1,440.00	0.07	9,600.00	0.11
		6,000.00	0.35	10,000.00	0.43	0.00	0.00	0.00	0.00	0.00	0.00	5,270.00	0.00
		40,779.20	0.40	48,503.60	0.52	0.00	0.00	40.00	0.00	992.00	0.02	7,836.25	0.06
		24,681.39	0.07	23,126.55	0.05	0.00	0.00	41.83	0.00	600.27	0.03	1,905.80	0.04
		39,500.00	0.78	45,000.00	0.71	700.00	0.04	100.00	0.00	250.00	0.01	11,150.00	0.16
		6,600.00	0.21	2,049.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	350.00	0.02
		18,900.00	0.40	25,512.25	0.48	296.50	0.01	35.50	0.00	100.00	0.00	5,987.50	0.10
		14,262.07	0.27	22,735.43	0.30	353.34	0.02	44.73	0.00	122.47	0.00	4,702.73	0.07

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()		213,100.00	0.76	73,200.00	0.18	19,850.00	0.10	10,000.00	0.05	22,500.00	0.07	56,500.00	0.14
		13,800.00	0.50	590.00	0.03	1,760.00	0.05	900.00	0.02	1,200.00	0.04	270.00	0.01
		93,110.00	0.65	27,194.00	0.08	9,009.80	0.08	4,420.00	0.04	8,580.00	0.06	21,222.00	0.06
		106,762.95	0.12	36,683.50	0.08	9,715.45	0.02	4,737.30	0.01	10,192.50	0.01	28,776.52	0.06
		222,170.00	0.43	188,000.00	0.49	23,277.00	0.20	3,500.00	0.03	8,000.00	0.07	82,920.00	0.61
()		214.43	0.00	185.00	0.00	1,120.00	0.03	36.00	0.00	95.00	0.00	2,000.00	0.06
		88,031.63	0.34	86,713.57	0.36	11,526.86	0.06	1,892.86	0.01	4,785.00	0.03	44,418.86	0.18
		100,488.69	0.16	93,371.37	0.16	10,037.14	0.06	1,733.53	0.01	3,835.70	0.02	39,477.54	0.19
		443,833.00	0.67	400,992.00	0.74	25,452.00	0.08	1,440.00	0.02	14,000.00	0.09	383,541.00	0.63
		11,600.00	0.12	10,500.00	0.16	662.00	0.00	0.00	0.00	0.00	0.00	320.00	0.00
		93,795.96	0.36	99,908.80	0.43	9,905.63	0.04	402.67	0.00	3,152.13	0.02	48,312.15	0.13
		106,195.96	0.15	90,250.59	0.15	7,794.58	0.02	481.18	0.01	4,598.49	0.03	102,382.54	0.16
		754,289.30	0.75	359,400.00	0.55	129,948.00	0.44	20,000.00	0.11	40,000.00	0.09	88,572.00	0.72
		3,958.00	0.11	7,950.00	0.13	0.00	0.00	0.00	0.00	0.00	0.00	2,421.50	0.02
		171,096.67	0.44	109,469.12	0.34	26,786.12	0.07	1,100.16	0.00	13,206.86	0.03	26,588.64	0.12
		162,989.23	0.15	78,399.95	0.09	29,202.66	0.06	3,080.84	0.01	12,742.06	0.02	18,203.43	0.12
		335,000.00	0.76	475,000.00	0.72	184,420.00	0.32	15,000.00	0.06	79,000.00	0.49	60,272.00	0.56
		3,743.00	0.08	1,181.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	600.00	0.00
		125,669.02	0.43	128,385.26	0.41	17,210.32	0.05	1,254.78	0.01	6,946.99	0.03	17,613.60	0.07
		93,044.64	0.14	102,989.32	0.15	23,034.21	0.05	2,370.48	0.01	10,208.30	0.06	12,830.21	0.08
		68,800.00	0.49	85,500.00	0.70	1,350.00	0.02	100.00	0.00	4,500.00	0.08	7,980.00	0.17
		6,100.00	0.23	6,000.00	0.39	0.00	0.00	0.00	0.00	0.00	0.00	3,575.00	0.00
		24,658.33	0.35	41,166.67	0.55	525.00	0.01	57.00	0.00	1,470.00	0.02	5,240.00	0.08
		23,149.96	0.10	35,637.99	0.11	647.11	0.01	48.06	0.00	1,822.95	0.03	1,695.41	0.07
		697,890.00	0.77	510,280.00	0.83	495,227.00	0.85	24,298.51	0.11	81,000.00	0.44	243,500.00	0.78
		1,170.00	0.04	1,200.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	481.00	0.00
		119,347.73	0.40	99,613.90	0.37	31,631.17	0.09	1,212.79	0.01	7,328.33	0.03	22,928.28	0.10
		122,095.02	0.17	82,127.87	0.16	62,941.40	0.11	3,103.41	0.02	11,167.54	0.05	33,077.58	0.14
		83,700.00	0.49	150,000.00	0.87	15,545.89	0.14	8,000.00	0.04	23,000.00	0.09	42,700.00	0.48
		1,361.00	0.06	2,400.00	0.33	287.00	0.02	0.00	0.00	0.00	0.00	130.00	0.00
		29,078.40	0.26	62,445.66	0.58	6,812.59	0.06	926.65	0.01	3,457.00	0.03	6,685.49	0.06
		22,933.14	0.12	42,837.58	0.14	5,095.23	0.03	1,695.26	0.01	5,529.40	0.03	9,899.76	0.09
		533,110.00	0.96	330,792.00	0.55	50,980.00	0.12	9,000.00	0.01	31,200.00	0.10	580,000.00	0.47
		10,296.00	0.28	891.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	667.00	0.00
		156,970.87	0.52	106,961.19	0.33	7,662.06	0.03	745.15	0.00	7,412.86	0.03	40,596.75	0.08
		155,042.16	0.14	98,149.29	0.13	9,259.22	0.03	1,820.32	0.00	7,611.64	0.02	110,455.98	0.12
		342,400.00	0.95	640,000.00	0.84	60,000.00	0.11	37,000.00	0.13	60,000.00	0.21	238,200.00	0.52
		5,816.00	0.07	170.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	338.00	0.00
		107,302.61	0.43	112,376.64	0.40	13,074.48	0.05	937.18	0.00	7,977.55	0.02	27,070.36	0.07
		89,317.57	0.16	117,071.62	0.15	13,100.71	0.02	4,288.46	0.02	12,361.70	0.03	34,363.37	0.09
		117,400.00	0.88	294,000.00	0.95	77,714.00	0.49	4,490.00	0.07	18,000.00	0.10	273,096.00	1.00
		134.00	0.00	110.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	86.00	0.00
		24,148.87	0.32	40,519.09	0.45	5,370.62	0.06	281.58	0.00	768.23	0.01	10,517.83	0.15
		28,221.87	0.19	55,467.69	0.20	9,469.86	0.08	647.14	0.01	1,948.37	0.02	28,376.73	0.19

6 - 7 , .

10% (18%), (40%), (36%), (28%),
(13%), (12%) (11%)
(-12%), (-2%), (-1%) (-28%), (-15%),
(7%) , 가 (132%) , 가

118% ,
(704%), (192%), (156%), (146%), (122%)
(120%) . 가 가
(1,099%) , 가 (16%) .

47% ,
(85%), (81%), (64%), (60%),
(58%), (55%) . 가 가
(109%) , 가 (8%) .

1.49 ,
(4.92), (4.51), (3.46),
(2.57) (1.64) . 가 가
(4.61) , 가 (0.12) .

277%, 649% , -16% 146% .
151% 530% .
1.51 5.30 55.45 .

6-7.

(:)

				()						()	
		0.89	35.00	21.59	5.31			0.60	0.82	8.23	0.18
		(8.30)	0.00	0.00	0.00			0.13	0.06	0.42	0.00
		(0.01)	1.18	1.49	0.47	()		0.40	0.44	4.92	0.05
		0.78	2.85	2.00	0.56			0.23	0.54	4.09	0.08
		0.53	4.50	1.98	1.21			0.78	0.90	0.75	0.77
		(0.88)	0.00	0.31	0.00			(0.30)	0.20	0.40	0.15
		0.01	0.70	1.06	0.32	()		0.03	0.45	0.53	0.36
		0.33	1.20	0.51	0.32			0.36	0.24	0.12	0.20
		0.41	1.00	4.82	2.22			0.33	0.81	4.04	0.99
		(0.65)	0.00	0.00	0.00			(0.98)	0.00	0.26	0.00
		(0.01)	0.25	1.24	0.60			(0.01)	0.27	1.04	0.31
		0.28	0.42	1.73	0.67			0.38	0.47	0.97	0.28
		0.62	0.54	8.63	0.37			0.89	11.00	21.59	5.11
		(0.04)	0.01	0.74	0.08			(4.44)	0.00	0.00	0.00
()		0.18	0.23	3.46	0.25			(0.15)	1.46	1.22	0.48
		0.24	0.16	3.04	0.12			0.86	2.66	3.03	0.75
		0.89	5.00	9.30	0.64			0.86	5.52	15.85	2.06
		(0.98)	0.10	0.40	0.08			(2.03)	0.00	0.04	0.00
()		(0.03)	1.44	1.64	0.27			0.10	1.07	1.71	0.55
		0.43	1.46	2.03	0.17			0.45	1.54	2.13	0.44
		0.24	35.00	2.80	0.98			0.58	0.00	1.52	0.73
		(1.61)	0.13	0.53	0.03			(0.12)	0.00	0.31	0.00
		(0.28)	7.04	1.42	0.39			0.13	0.00	1.01	0.41
		0.65	10.99	0.58	0.32			0.28	0.00	0.49	0.30
		0.89	2.50	10.64	0.27			0.79	11.43	10.08	3.52
		(0.06)	0.01	0.79	0.05			(5.51)	0.00	0.00	0.00
		0.36	0.94	4.51	0.13			(0.12)	0.58	1.20	0.58
		0.35	0.92	4.64	0.10			1.08	1.66	1.32	0.59
		0.53	1.86	6.06	1.83			0.70	3.25	10.02	5.31
		(1.33)	0.00	0.31	0.00			(0.27)	0.00	0.07	0.00
		0.12	0.58	1.32	0.64			0.28	0.65	2.57	0.81
		0.35	0.61	1.38	0.54			0.17	0.82	2.49	1.09
		0.47	5.93	2.62	0.53			0.62	10.50	6.67	0.70
		(0.41)	0.00	0.34	0.00			(3.71)	0.00	0.20	0.00
		0.07	1.56	1.20	0.22			(0.03)	1.92	1.36	0.29
		0.20	2.00	0.56	0.20			0.68	3.54	1.34	0.19
		0.22	0.00	1.61	0.47			0.63	4.80	6.83	2.16
		0.03	0.00	0.59	0.00			(8.30)	0.00	0.00	0.00
		0.11		0.98	0.20			(0.15)	1.22	1.01	0.41
		0.07		0.45	0.20			1.32	1.34	1.12	0.45
		0.53	0.22	1.54	1.35			1.00	35.71	42.44	55.45
		(1.07)	0.00	0.11	0.41			(13.90)	0.00	0.00	0.00
		(0.02)	0.11	0.87	0.85			(0.16)	2.77	1.95	1.51
		0.72	0.16	0.62	0.48			1.46	6.49	5.01	5.30

2)

가)

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	6-9	.	
22,222.25			(39,600) ,
(29,145.49) ,	(28,828.21)		(28,644.44) ,
(24,867.31) ,	가		(5,805.56) .
		가 가	
(165,490.41) ,	가 가	(6,947.57)	.
		74,763.47	.
	(184,139.33) ,		(115,571.85) ,
(104,307.48)	(100,845.48) ,		가
(52,217.73) .		가 가	
(268,231.93) ,	가	(52,566.15)	.
	79%	,	(94%) ,
(89%) ,	(88%) ,	(84%)	.
		18,598.90	44,204.31 .
가 가	255,000.00	, 가	0 .
가 가	193,500.00	, 가	600.00 .
		21,038.25	34,270.14 .
가 가	376,6000.00	, 가	0 .
가 가	334,500.00	, 가	600.00 .

		1,433,000.00	1.00	1,824,800.00	1.00
		0.00	0.00	700.00	0.00
		22,222.25	0.21	74,763.47	0.79
		96,139.70	0.22	149,246.90	0.22
		68,500.00	0.40	218,800.00	1.00
		0.00	0.00	24,501.00	0.60
		13,159.05	0.11	104,307.48	0.89
		18,231.84	0.13	52,566.15	0.13
		20,000.00	0.49	226,800.00	1.00
		0.00	0.00	2,500.00	0.51
		5,805.56	0.12	68,277.78	0.88
		6,947.57	0.14	64,915.92	0.14
		200,000.00	1.00	265,200.00	1.00
		0.00	0.00	1,500.00	0.00
		11,923.56	0.21	52,217.73	0.80
		23,081.52	0.22	52,999.64	0.22
		70,000.00	0.36	558,500.00	0.99
		300.00	0.01	21,020.00	0.64
		28,644.44	0.16	184,139.33	0.84
		24,046.32	0.14	185,264.16	0.14
		32,500.00	0.20	213,300.00	1.00
		0.00	0.00	23,850.00	0.80
		8,446.15	0.06	115,571.85	0.94
		11,209.94	0.07	57,854.83	0.07
		955,000.00	0.97	366,000.00	1.00
		0.00	0.00	6,000.00	0.03
		39,600.00	0.20	54,854.85	0.80
		165,490.41	0.21	84,315.73	0.21
		1,300,000.00	0.98	900,000.00	1.00
		0.00	0.00	700.00	0.02
		29,145.49	0.23	73,540.90	0.77
		128,952.84	0.22	123,656.46	0.22
		315,000.00	0.82	468,900.00	1.00
		0.00	0.00	2,300.00	0.18
		24,867.31	0.21	70,889.81	0.79
		55,751.58	0.23	87,054.97	0.23
		1,433,000.00	1.00	1,824,800.00	1.00
		0.00	0.00	2,600.00	0.00
		28,828.21	0.23	100,845.48	0.77
		124,798.81	0.22	268,231.93	0.22
		255,000.00	1.00	193,500.00	1.00
		0.00	0.00	600.00	0.00
		18,598.90	0.21	44,204.31	0.79
		44,840.81	0.25	42,910.06	0.25
		376,600.00	0.93	334,500.00	1.00
		0.00	0.00	600.00	0.07
		21,038.25	0.22	34,270.14	0.78
		61,631.07	0.23	51,533.69	0.23

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6-10

12,966.53 .

(31,907.69), (24,355.56), (14,442.86

), (14,388.89), (14,158.14), (13,471.73)

. 가가 (36,825.14) , 가가

(16,210.45) .

30,049.43 , 가

(87,290.48), (35,375.00) (30,819.75) .

가가 (119,982.17) ,가

(18,978.66) .

17,718.51 21,776.77 .

가가 220,000.00 ,가 0 .

가가 250,000.00 ,가 0 .

14,989.47 35,113.32 .

가가 125,200.00 ,가 0 .

가가 318,000.00 ,가 0 .

6-11

21,675.27 ,

가 (50,861.90),

(25,153.85), (23,972.84) (22,794.44) .

가 가

(66,841.61) ,가 가 (19,391.72) .

6,406.30 ,

(15,230.77), (6,827.86) .

가가

(46,074.47) ,가 (3,509.49) .

13,691.26 7,671.71 .

가 107,000.00 ,가 0 .

가 143,000.00 ,가 0 .

20,506.61 14,282.26 .

가 250,000.00 ,가 0 .

가 118,000.00 ,가 0 .

		300,000.00	1.00	534,000.00	1.00
		0.00	0.00	0.00	0.00
		12,966.53	0.37	30,049.43	0.63
		28,886.58	0.41	47,712.78	0.41
		65,000.00	1.00	534,000.00	1.00
		0.00	0.00	0.00	0.00
		14,442.86	0.23	87,290.48	0.77
		16,210.45	0.25	119,982.17	0.25
		59,000.00	1.00	175,000.00	1.00
		0.00	0.00	0.00	0.00
		14,388.89	0.27	28,905.56	0.73
		20,940.08	0.36	45,080.27	0.36
		300,000.00	1.00	380,000.00	1.00
		0.00	0.00	0.00	0.00
		14,158.14	0.36	28,267.88	0.64
		36,825.14	0.41	40,285.78	0.41
		80,000.00	1.00	116,000.00	0.87
		0.00	0.13	0.00	0.00
		24,355.56	0.74	24,555.56	0.26
		25,077.64	0.35	47,505.56	0.35
		80,000.00	1.00	65,000.00	0.90
		1,800.00	0.10	0.00	0.00
		31,907.69	0.66	25,153.85	0.34
		22,551.66	0.32	25,582.70	0.32
		150,000.00	1.00	80,000.00	1.00
		0.00	0.00	0.00	0.00
		9,625.00	0.35	15,825.76	0.65
		26,457.21	0.41	18,978.66	0.41
		200,000.00	1.00	300,000.00	1.00
		0.00	0.00	0.00	0.00
		13,471.73	0.40	30,819.75	0.60
		27,690.74	0.41	49,255.17	0.41
		70,000.00	1.00	304,000.00	1.00
		0.00	0.00	0.00	0.00
		12,320.19	0.37	35,375.00	0.63
		18,180.33	0.40	52,705.33	0.40
		200,000.00	1.00	215,000.00	1.00
		0.00	0.00	0.00	0.00
		8,861.99	0.33	25,752.62	0.67
		22,435.09	0.42	36,891.86	0.42
		220,000.00	1.00	250,000.00	1.00
		0.00	0.00	0.00	0.00
		17,718.51	0.44	21,776.77	0.56
		41,251.72	0.43	38,248.91	0.43
		125,200.00	1.00	318,000.00	1.00
		0.00	0.00	0.00	0.00
		14,989.47	0.41	35,113.32	0.59
		29,459.04	0.46	62,137.55	0.46

		330,000.00	1.00	270,000.00	1.00
		0.00	0.00	0.00	0.00
		21,675.27	0.78	6,406.30	0.17
		34,353.91	0.31	20,751.84	0.27
		300,000.00	1.00	210,000.00	0.65
		0.00	0.00	0.00	0.00
		50,861.90	0.71	13,571.43	0.09
		66,841.61	0.39	46,074.47	0.20
		150,000.00	1.00	25,000.00	0.80
		0.00	0.00	0.00	0.00
		22,794.44	0.67	4,888.89	0.23
		39,907.93	0.35	8,574.17	0.27
		330,000.00	1.00	130,000.00	1.00
		0.00	0.00	0.00	0.00
		21,714.58	0.81	5,397.17	0.15
		33,554.59	0.30	14,966.23	0.26
		116,000.00	1.00	50,000.00	0.50
		0.00	0.50	0.00	0.00
		19,000.00	0.83	5,555.56	0.17
		39,893.61	0.29	16,666.67	0.29
		65,000.00	1.00	0.00	0.00
		0.00	1.00	0.00	0.00
		25,153.85	1.00	0.00	0.00
		25,582.70	0.00	0.00	0.00
		80,000.00	1.00	18,000.00	1.00
		0.00	0.00	0.00	0.00
		13,984.85	0.76	1,356.06	0.15
		19,391.72	0.35	3,509.49	0.26
		300,000.00	1.00	150,000.00	1.00
		0.00	0.00	0.00	0.00
		23,972.84	0.79	5,346.91	0.17
		40,976.39	0.32	16,717.01	0.29
		100,000.00	1.00	270,000.00	1.00
		0.00	0.00	0.00	0.00
		20,105.77	0.75	15,230.77	0.24
		24,330.71	0.33	42,657.14	0.33
		117,000.00	1.00	100,000.00	1.00
		0.00	0.00	0.00	0.00
		16,818.68	0.74	6,827.86	0.21
		22,261.00	0.31	18,179.51	0.28
		107,000.00	1.00	143,000.00	1.00
		0.00	0.00	0.00	0.00
		13,691.26	0.62	7,671.71	0.34
		21,638.02	0.36	20,132.65	0.34
		250,000.00	1.00	118,000.00	1.00
		0.00	0.00	0.00	0.00
		20,506.61	0.55	14,282.26	0.36
		44,593.25	0.39	26,775.24	0.37

3)

가)

6-12	,	,	,
	59,287.07	,	
	(339,225.72)	,	(93,738.46)
(90,309.33)	(67,526.65)	.	
가 가	(281,954.55)	,	가
(55.137.24)			
	46,765.71	,	
	(155,469.41)	,	(85,373.75)
(80,217.80)	(56,629.87)	.	
가 가	(139,954.87)	,	가
(42,279.34)			
	11,630.37	,	
(183,756.31)	.		가 가
(221,948.28)	,	가	(13,462.20)
			62,440.76 26,402.49
34,723.73	.		137,421.26 51,108.61
,	114,331.03	.	가
715,713.00	,	가	-26,280.00
			37,682.43 24,831.33
11,401.78	.		59,251.65 35,679.40
,	33,063.36	.	가
140,614.57	,	가	-63,692.84

		776,107.00	949,888.94	586,409.00
		500.00	280.00	(722,467.74)
		59,287.07	46,765.71	11,630.37
		89,721.45	86,528.46	62,321.47
		272,427.00	194,103.00	135,551.00
		18,139.00	14,357.00	(41,400.00)
		93,738.46	80,217.80	13,520.66
		70,085.98	49,138.23	37,278.55
		194,469.00	185,314.00	34,330.20
		1,500.00	280.00	(32,710.00)
		59,041.47	54,315.79	1,445.60
		55,137.24	58,346.81	13,462.20
		636,039.00	316,997.38	341,393.56
		500.00	519.00	(61,898.00)
		49,829.99	34,466.14	14,580.32
		66,567.90	44,433.50	39,594.39
		776,107.00	256,000.00	586,409.00
		9,300.00	8,971.00	329.00
		339,225.72	155,469.41	183,756.31
		281,954.55	96,910.70	221,948.28
		240,000.00	178,350.00	61,650.00
		1,311.35	5,564.00	(35,565.00)
		90,309.33	85,373.75	4,935.58
		71,959.13	63,103.14	22,919.35
		388,500.00	206,500.00	262,445.00
		2,000.00	3,410.00	(86,500.00)
		39,740.81	26,548.04	13,192.78
		71,998.21	42,279.34	52,284.89
		550,000.00	620,171.40	222,650.00
		750.00	516.60	(558,389.80)
		53,246.51	45,941.36	6,710.22
		85,236.09	87,192.93	63,343.52
		252,324.00	253,677.78	122,133.00
		900.00	429.00	(75,806.51)
		67,526.65	54,244.00	10,526.46
		67,156.61	62,506.01	33,909.13
		530,000.00	949,888.94	212,575.00
		850.00	479.70	(722,467.74)
		60,966.29	56,629.87	3,544.65
		97,989.67	139,954.87	76,643.74
		790,965.00	323,595.00	715,713.00
		200.00	984.80	(26,280.00)
		62,440.76	26,402.49	34,723.73
		137,421.26	51,108.61	114,331.03
		280,000.00	207,025.00	140,614.57
		2,400.00	250.00	(63,692.84)
		37,682.43	24,831.33	11,401.78
		59,251.65	35,679.40	33,063.36

		425,000.00	1.00	195,000.00	0.88	41,500.00	0.79
		30.00	0.02	0.00	0.00	0.00	0.00
		22,794.59	0.55	14,945.61	0.24	1,843.54	0.04
		41,738.76	0.23	27,906.74	0.22	4,113.68	0.06
		101,797.00	0.73	67,720.00	0.63	10,164.00	0.11
		3,404.40	0.14	3,000.00	0.15	0.00	0.00
		40,440.52	0.48	28,775.95	0.37	2,416.68	0.03
		27,553.57	0.15	19,576.04	0.13	3,231.04	0.03
		91,723.00	0.56	97,235.00	0.86	8,379.00	0.13
		30.00	0.06	0.00	0.00	0.00	0.00
		19,898.63	0.32	26,009.72	0.43	1,725.88	0.03
		26,084.14	0.14	28,696.21	0.20	2,425.64	0.03
		194,140.54	1.00	122,706.00	0.88	23,256.64	0.79
		299.00	0.07	0.00	0.00	0.00	0.00
		17,796.54	0.58	11,440.13	0.23	1,476.12	0.05
		22,833.17	0.23	20,693.69	0.24	2,661.85	0.09
		115,548.00	0.47	127,000.00	0.70	41,500.00	0.20
		1,880.00	0.21	5,000.00	0.24	0.00	0.00
		57,051.89	0.33	69,727.22	0.50	12,094.44	0.05
		40,814.58	0.09	42,333.75	0.15	14,568.10	0.07
		78,800.00	0.61	90,000.00	0.60	9,600.00	0.07
		455.00	0.07	0.00	0.00	0.00	0.00
		39,465.42	0.37	34,091.75	0.39	3,939.75	0.04
		32,519.13	0.18	27,755.03	0.15	3,090.35	0.02
		77,500.00	0.85	110,000.00	0.62	4,728.00	0.16
		1,250.00	0.13	0.00	0.00	0.00	0.00
		12,044.81	0.49	9,297.65	0.25	756.32	0.04
		17,278.68	0.22	22,022.69	0.20	1,197.28	0.05
		273,300.00	1.00	150,000.00	0.76	37,932.00	0.33
		220.00	0.04	0.00	0.00	0.00	0.00
		22,959.88	0.59	12,978.83	0.20	2,077.93	0.04
		41,336.35	0.22	26,456.15	0.22	5,528.40	0.05
		78,236.37	0.81	135,885.00	0.71	28,712.52	0.31
		532.00	0.11	0.00	0.00	0.00	0.00
		22,293.76	0.46	24,582.29	0.32	3,284.64	0.05
		22,493.81	0.17	34,364.36	0.20	5,291.89	0.06
		425,000.00	1.00	195,000.00	0.86	9,900.00	0.20
		83.20	0.02	0.00	0.00	0.00	0.00
		28,492.67	0.58	13,790.72	0.19	1,176.01	0.04
		68,914.49	0.24	33,894.57	0.21	1,793.09	0.04
		130,000.00	1.00	240,000.00	0.96	25,125.00	0.36
		66.24	0.02	0.00	0.00	0.00	0.00
		11,944.16	0.53	10,032.13	0.22	973.00	0.03
		17,653.28	0.26	35,989.76	0.25	3,629.54	0.07
		108,500.00	0.99	78,000.00	0.68	64,143.44	0.79
		750.00	0.03	0.00	0.00	0.00	0.00
		12,274.34	0.54	8,277.41	0.21	2,175.12	0.06
		18,571.91	0.25	16,522.76	0.24	9,064.68	0.12

						가	
		45,000.00	0.70	31,000.00	0.48	899,920.00	1.00
		0.00	0.00	0.00	0.00	0.00	0.00
		253.06	0.01	868.99	0.01	6,012.88	0.14
		1,765.16	0.03	3,083.02	0.04	39,912.06	0.16
		1,600.00	0.02	4,266.00	0.04	19,800.00	0.44
		0.00	0.00	0.00	0.00	574.00	0.01
		270.50	0.00	1,213.10	0.01	6,171.05	0.10
		495.86	0.01	1,576.71	0.01	4,468.35	0.10
		10,000.00	0.18	3,000.00	0.10	16,332.00	0.89
		0.00	0.00	0.00	0.00	250.00	0.02
		1,046.44	0.02	624.83	0.01	4,999.17	0.18
		2,540.93	0.05	1,091.81	0.03	4,548.10	0.21
		45,000.00	0.70	10,600.00	0.20	43,517.00	1.00
		0.00	0.00	0.00	0.00	0.00	0.00
		280.51	0.01	516.55	0.01	3,043.79	0.13
		2,749.56	0.04	1,483.25	0.03	6,121.40	0.15
		4,500.00	0.02	25,000.00	0.12	27,925.00	0.22
		0.00	0.00	0.00	0.00	1,550.00	0.02
		536.11	0.00	3,488.89	0.02	9,551.41	0.09
		1,489.70	0.01	8,156.51	0.04	9,097.55	0.07
		1,320.00	0.03	8,040.00	0.18	10,665.00	0.86
		0.00	0.00	0.00	0.00	1,283.00	0.05
		303.50	0.00	1,486.67	0.03	6,040.83	0.17
		389.32	0.01	2,195.96	0.05	2,818.13	0.23
		2,700.00	0.04	3,600.00	0.12	13,800.00	0.47
		0.00	0.00	0.00	0.00	180.00	0.03
		169.48	0.00	510.65	0.02	3,501.39	0.17
		543.30	0.01	871.84	0.03	3,880.67	0.10
		3,600.00	0.12	25,000.00	0.48	583,333.00	0.94
		0.00	0.00	0.00	0.00	0.00	0.00
		125.64	0.00	819.79	0.02	6,842.46	0.14
		432.96	0.01	2,941.70	0.05	43,789.59	0.14
		1,600.00	0.07	5,520.00	0.16	35,760.00	1.00
		0.00	0.00	0.00	0.00	0.00	0.00
		283.98	0.01	814.23	0.02	4,378.78	0.17
		525.85	0.02	1,138.92	0.03	6,180.66	0.22
		3,210.00	0.07	31,000.00	0.14	899,920.00	0.95
		0.00	0.00	0.00	0.00	0.00	0.00
		243.69	0.01	1,426.71	0.02	11,226.49	0.17
		572.04	0.01	5,143.84	0.03	73,329.74	0.19
		3,600.00	0.07	2,400.00	0.07	54,000.00	0.86
		0.00	0.00	0.00	0.00	0.00	0.00
		186.43	0.01	166.61	0.00	2,923.86	0.20
		598.59	0.01	502.07	0.01	6,153.54	0.21
		200.00	0.04	6,000.00	0.35	16,725.00	1.00
		0.00	0.00	0.00	0.00	0.00	0.00
		25.63	0.00	231.27	0.01	2,175.51	0.19
		46.65	0.01	882.52	0.05	2,820.13	0.19

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6-14

(36%), (13%) (11%)

가 가 (103%) , 가

(36%)

196% ,

(363%) (300%) . 가 가

(1,428%) , 가 (29%) .

82% ,

(98%) (86%) . 가 가

(185%) , 가 (32%) .

1.12 ,

(2.32) (1.45) .

가 가 (2.94) , 가 (0.45) .

19% 1.76 ,

가 100% 3.14 .

99% , 가 -748% .

415% 108% , 1,496% 153% .

3% 1.18 ,

가 114% 1.35 .

91% , 가 -450% .

68% 155% , 178% 218% .

		()			
		1.00	136.36	16.67	19.80
		(9.04)	0.00	0.00	0.00
		0.05	1.96	0.82	1.12
		1.01	7.67	1.47	1.51
		0.50	2.00	2.47	1.94
		(0.69)	0.00	0.06	0.00
		0.06	0.67	0.81	0.88
		0.34	0.70	0.56	0.50
		0.81	0.80	1.61	3.09
		(0.29)	0.00	0.00	0.00
		0.12	0.26	0.56	1.03
		0.28	0.29	0.48	0.81
		1.00	14.00	16.67	13.33
		(6.91)	0.00	0.00	0.00
		0.11	1.52	0.98	1.09
		0.89	2.53	1.85	1.30
		0.76	3.02	0.91	6.78
		0.04	0.29	0.00	0.35
		0.36	1.13	0.27	2.32
		0.26	0.90	0.33	2.18
		0.26	1.08	1.15	1.34
		(3.70)	0.00	0.07	0.00
		(0.28)	0.28	0.49	0.63
		1.09	0.32	0.32	0.45
		0.74	6.00	3.25	1.92
		(1.56)	0.00	0.00	0.00
		0.13	1.50	0.67	0.73
		0.57	1.60	0.65	0.47
		0.87	136.36	13.46	11.23
		(9.04)	0.00	0.00	0.00
		(0.04)	3.00	0.86	1.21
		1.30	14.28	1.72	1.67
		0.75	31.50	8.00	19.80
		(4.29)	0.00	0.00	0.00
		(0.00)	3.63	0.79	1.45
		0.85	6.65	1.23	2.94
		0.96	10.77	5.00	6.55
		(7.98)	0.00	0.00	0.00
		0.05	1.53	0.69	1.06
		1.08	2.39	0.89	1.07
		0.99	100.00	11.00	20.46
		(7.48)	0.00	0.00	0.00
		0.19	4.15	1.08	1.76
		1.00	14.96	1.53	3.14
		0.91	9.42	13.23	6.67
		(4.50)	0.00	0.00	0.00
		0.03	0.68	1.55	1.18
		1.14	1.78	2.18	1.35

4) 가 가

6-15	가	가	가	64,463.20
(352,561.33)	가	(103,928.93)	(86,566.67)	
가	가	가	(295,506.89)	
가	(59,733.96)	가	가	
가	가	8,059.79	가	
가	가	가	(14,828.29)	
),	(14,423.21)	(10,792.95)	가	
가	가	가	(34,841.77)	가
	(6,624.54)	가	가	
6-16	가	가	가	40,538.22
(187,735.78)	가	(76,905.33)	(67,038.21)	
가	가	가	(169,517.01)	
가	(34,357.97)	가	가	
가	가	946.83	가	
가	가	가	(3,150.56)	
(2,010.87)	(1,245.23)	가	가	
가	(9,263.19)	가	가	
(212.47)	가	11,607.30	가	가
가	가	(22,837.33)	가	(19,050.00)
(18,763.21)	가	가	가	
(14,845.83)	가	가	(9,251.39)	
		35,121.06	1,548.23	
가	325,095.00	68,100.39	3,979.39	
		19,496.31	10,077.50	
가	171,500.00	30,810.40	63,292.57	

		1,160,411.00	214,000.00
		0.00	0.00
		64,463.20	8,059.79
		106,488.83	23,872.66
		387,430.00	82,050.00
		1,550.00	0.00
		103,928.93	14,423.21
		97,732.98	26,688.93
		194,469.00	52,834.00
		0.00	0.00
		59,177.67	3,955.60
		59,733.96	13,581.71
		787,240.00	174,000.00
		0.00	0.00
		47,748.62	5,849.01
		68,392.93	19,224.43
		776,107.00	30,090.00
		9,300.00	0.00
		352,561.33	3,343.33
		295,506.89	10,030.00
		240,000.00	22,000.00
		0.00	0.00
		86,566.67	2,791.67
		74,637.28	6,624.54
		404,220.00	102,000.00
		0.00	0.00
		40,934.19	14,828.29
		77,249.00	24,616.14
		550,000.00	214,000.00
		0.00	0.00
		54,989.10	8,291.02
		85,268.60	27,010.77
		377,803.00	183,706.00
		2,000.00	0.00
		72,351.81	10,792.95
		83,751.98	34,841.77
		1,160,411.00	152,501.00
		0.00	0.00
		78,923.20	9,191.16
		140,184.08	23,635.00
		523,452.00	57,300.00
		0.00	0.00
		56,183.59	5,180.53
		94,299.06	9,965.23
		280,000.00	81,600.00
		2,400.00	0.00
		34,337.92	4,232.88
		52,118.92	12,716.44

		688,000.00	64,200.00	100,000.00
		0.00	0.00	0.00
		40,538.22	946.83	11,607.30
		77,635.74	5,770.57	11,353.67
		162,848.00	795.00	40,000.00
		0.00	0.00	0.00
		67,038.21	56.79	18,763.21
		56,206.61	212.47	14,845.83
		186,411.00	1,300.00	30,500.00
		50.00	0.00	0.00
		55,340.99	126.67	9,670.63
		69,321.29	334.81	12,349.02
		215,692.00	63,500.00	100,000.00
		0.00	0.00	0.00
		28,809.52	855.51	13,042.57
		34,357.97	6,135.12	12,502.73
		572,600.00	20,355.00	36,000.00
		6,975.00	0.00	1,400.00
		187,735.78	3,150.56	22,837.33
		169,517.01	6,973.09	13,535.89
		169,400.00	4,500.00	36,000.00
		3,018.00	0.00	1,200.00
		76,905.33	416.67	19,050.00
		62,930.52	1,293.93	11,680.64
		197,000.00	3,750.00	38,300.00
		0.00	0.00	0.00
		20,089.36	479.03	9,440.00
		39,145.05	1,099.68	10,072.87
		417,000.00	64,200.00	37,000.00
		0.00	0.00	0.00
		35,475.92	1,245.23	10,733.52
		68,168.47	6,247.91	9,251.39
		547,305.00	60,000.00	46,700.00
		1,000.00	0.00	0.00
		56,640.16	2,010.87	11,904.67
		94,074.65	9,263.19	11,956.74
		688,000.00	50,000.00	42,000.00
		0.00	0.00	0.00
		46,185.87	573.96	9,168.58
		110,683.43	4,378.60	10,259.28
		325,095.00	22,500.00	384,000.00
		0.00	0.00	0.00
		35,121.06	1,548.23	17,543.51
		68,100.39	3,979.39	54,398.66
		171,500.00	456,900.00	25,000.00
		0.00	0.00	0.00
		19,496.31	10,077.50	7,588.65
		30,810.40	63,292.57	7,012.55

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6-17. .

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		7.93	3.11	4.93	7.93	-	-	0.00	6.67	4.97	3.27	6.66
		1.08	2.52	4.93	2.57	-	-	0.00	6.67	1.08	2.50	3.42
		4.47	2.74	4.93	5.66	-	-	-	6.67	4.00	2.89	5.01
		1.91	0.32	0.00	2.28	-	-	-	0.00	1.94	0.54	1.62
		20.00	11.00	5.00	7.00	10.00	20.00	0.00	9.00	7.00	18.00	8.00
		0.60	3.00	3.00	2.00	5.00	11.00	0.00	2.00	2.00	2.00	0.60
		5.67	5.75	4.00	4.75	8.00	15.50	-	5.50	4.14	6.20	4.45
		4.06	3.59	1.00	2.22	2.65	6.36	-	3.11	1.77	6.80	2.64

4.47 .

가

(6.67) ,

(5.66) ,

(5.01) ,

(4.93) ,

가가

(2.89) .

가

7.93 ,

가

1.08 .

5.67 ,

(15.50) ,

(8.00) ,

(6.20)

(5.75) ,

가

(4.00) .

가

20.00 ,

가

0.60 .

2) .

가) . , , ,

6-18 . , , ,

53.36ha ,

(199.50ha)

(174.25ha) ,

(134.72ha) .

가가

(5.77ha) ,

가가

(109.96ha) .

37,636,568.93 ,

(75,309,124.00)

(70,750,000.00) ,

(45,000,000.00) .

270.17 ,

(1,612.89)

(744.50) .

71.82 (54.1%) ,

48.38 (36.4%) ,

12.55 (9.5%) .

(100%) ,

(100%) ,

(100%) ,

(96.4%) ,

(94.4%) ,

(88.5%) ,

(56.7%)

26.8% .

		341.80	500,000,000.00	12,292.00	644.00	350.00	54.3%	247.00	38.4%	47.00	7.3%
		1.10	1,000,000.00	0.00	5.00	1.00	20.0%	3.00	60.0%	1.00	20.0%
		53.36	37,636,568.93	270.17	132.75	71.82	54.1%	48.38	36.4%	12.55	10.5%
		73.32	80,059,378.88	1,239.45	135.93	57.94	42.6%	61.38	45.2%	16.61	12.2%
		263.60	38,000,000.00	56.00	74.00	73.00	98.6%	0.00	0.0%	1.00	1.4%
		6.90	10,000,000.00	15.00	5.00	4.00	80.0%	0.00	0.0%	1.00	20.0%
		174.25	21,000,000.00	32.50	27.88	26.88	96.4%	-	-	1.00	3.6%
		90.37	14,933,184.52	14.84	22.48	22.48	100.0%	-	-	-	-
		32.00	-	350.00	134.00	134.00	100.0%	0.00	0.0%	0.00	0.0%
		10.00	-	14.00	27.00	27.00	100.0%	0.00	0.0%	0.00	0.0%
		21.87	-	131.67	80.50	80.50	100.0%	-	-	-	-
		9.36	-	160.05	75.66	75.66	100.0%	-	-	-	-
		91.00	25,000,000.00	840.00	245.00	160.00	65.3%	38.00	15.5%	47.00	19.2%
		1.10	5,000,000.00	0.00	61.00	21.00	34.4%	30.00	49.2%	10.00	16.4%
		24.07	12,000,000.00	142.12	120.73	54.40	45.1%	34.00	28.2%	32.33	26.8%
		25.08	11,269,427.67	189.14	56.48	31.17	55.2%	5.66	10.0%	19.66	34.8%
		104.10	27,200,000.00	136.00	272.00	136.00	50.0%	136.00	50.0%	0.00	0.0%
		3.00	1,280,000.00	4.00	132.00	50.00	37.9%	82.00	62.1%	0.00	0.0%
		38.62	12,512,000.00	47.63	184.57	84.57	45.8%	100.00	54.2%	-	0.0%
		30.57	11,531,544.56	36.01	57.09	25.91	45.4%	31.18	54.6%	-	0.0%
		200.00	88,495,720.00	350.00	359.00	350.00	97.5%	7.00	1.9%	2.00	0.6%
		59.62	10,915,000.00	8.00	49.00	40.00	81.6%	7.00	14.3%	2.00	4.1%
		134.72	33,382,144.00	129.00	159.67	150.67	94.4%	7.00	4.4%	2.00	1.3%
		66.37	31,219,072.67	113.21	105.14	105.14	100.0%	0.00	0.0%	0.00	0.0%
		15.00	6,122,000.00	33.00	55.00	55.00	100.0%	0.00	0.0%	0.00	0.0%
		5.00	2,040,000.00	12.00	42.00	42.00	100.0%	0.00	0.0%	0.00	0.0%
		10.00	4,896,000.00	25.00	45.25	45.25	100.0%	-	-	-	-
		5.77	1,943,030.62	10.10	6.50	6.50	100.0%	-	-	-	-
		130.00	500,000,000.00	389.00	458.00	198.00	43.2%	247.00	53.9%	13.00	2.8%
		2.20	1,000,000.00	10.00	10.00	6.00	60.0%	3.00	30.0%	1.00	10.0%
		31.44	75,309,124.00	124.44	142.85	81.04	56.7%	57.82	40.5%	4.00	2.8%
		31.59	153,357,603.88	107.63	134.28	53.96	40.2%	74.33	55.4%	6.00	4.5%
		51.00	140,000,000.00	108.00	211.00	211.00	100.0%	0.00	0.0%	0.00	0.0%
		5.00	1,500,000.00	4.00	1.00	1.00	100.0%	0.00	0.0%	0.00	0.0%
		18.29	70,750,000.00	24.08	51.92	51.92	100.0%	-	-	-	-
		13.49	97,934,289.19	30.50	72.02	72.02	100.0%	-	-	-	-
		341.80	63,732,366.00	12,292.00	383.00	197.00	51.4%	166.00	43.3%	20.00	5.2%
		74.40	13,013,000.00	40.00	95.00	55.00	57.9%	20.00	21.1%	20.00	21.1%
		199.50	30,064,766.57	1,612.89	222.89	109.89	49.3%	93.00	41.7%	20.00	9.0%
		109.96	19,573,746.21	4,029.18	142.64	39.40	27.6%	103.24	72.4%	-	-
		150.00	60,000,000.00	6,544.00	287.00	267.00	93.0%	20.00	7.0%	0.00	0.0%
		2.00	30,000,000.00	2.00	10.00	7.00	70.0%	3.00	30.0%	0.00	0.0%
		31.50	45,000,000.00	744.50	78.13	69.13	88.5%	9.00	11.5%	-	-
		42.44	21,213,203.44	1,838.96	72.19	65.77	91.1%	6.42	8.9%	-	-

) .

6-19 , , , , ,
 80 (44.0%),
 29 (15.9%), 51 (28.0%), 12 (6.6%), 10 (5.5%) .
 (100.0%), (80.0%),
 (50.0%), (45.8%), (44.4%) (35.7%).
 (25.6%) .
 (57.9%), (50.0%), (37.5%),
 (34.9%) , (33.3%), (14.3%), (11.1%) .

6-19. (:)

	182	80	44.0%	29	15.9%	51	28.0%	12	6.6%	10	5.5%
	14	5	35.7%	5	35.7%	2	14.3%	2	14.3%	-	0.0%
	2	1	50.0%	-	0.0%	1	50.0%	-	0.0%	-	0.0%
	43	18	41.9%	2	4.7%	15	34.9%	1	2.3%	7	16.3%
	10	8	80.0%	1	10.0%	1	10.0%	-	0.0%	-	0.0%
	9	2	22.2%	4	44.4%	2	22.2%	1	11.1%	-	0.0%
	4	4	100.0%	-	0.0%	-	0.0%	-	0.0%	-	0.0%
	39	17	43.6%	10	25.6%	8	20.5%	1	2.6%	3	7.7%
	18	8	44.4%	2	11.1%	2	11.1%	6	33.3%	-	0.0%
	24	11	45.8%	3	12.5%	9	37.5%	1	4.2%	-	0.0%
	19	6	31.6%	2	10.5%	11	57.9%	-	0.0%	-	0.0%

3) .

가) .

6-20 .

		15,560,000.00	1.00	785,000.00	1.00
		0.00	0.00	0.00	0.00
		364,259.66	0.48	49,314.91	0.52
		2,105,673.98	0.39	114,101.74	0.39
		68,500.00	1.00	359,500.00	0.94
		0.00	0.06	0.00	0.00
		15,625.00	0.41	64,750.00	0.59
		22,589.11	0.41	120,629.89	0.41
		2,000.00	0.23	140,000.00	1.00
		0.00	0.00	0.00	0.77
		1,111.17	0.13	30,088.83	0.87
		879.86	0.09	54,152.40	0.09
		50,000.00	1.00	210,000.00	1.00
		0.00	0.00	0.00	0.00
		17,540.38	0.61	22,903.85	0.39
		16,832.42	0.43	47,888.21	0.43
		60,000.00	1.00	180,000.00	0.86
		0.00	0.14	0.00	0.00
		8,125.00	0.55	17,125.00	0.45
		15,852.97	0.33	45,973.72	0.33
		250,000.00	0.24	785,000.00	0.86
		0.00	0.14	0.00	0.76
		46,667.57	0.17	175,491.71	0.83
		92,578.73	0.05	299,313.88	0.05
		15,560,000.00	1.00	0.00	0.00
		5,187,000.00	1.00	0.00	0.00
		11,526,750.00	1.00	0.00	0.00
		5,023,554.74	0.00	0.00	0.00
		98,500.00	1.00	300,000.00	1.00
		0.00	0.00	0.00	0.00
		15,537.93	0.51	28,962.07	0.49
		21,980.18	0.38	61,117.62	0.38
		55,000.00	1.00	325,000.00	1.00
		0.00	0.00	0.00	0.00
		10,661.54	0.38	44,176.92	0.62
		15,631.89	0.42	88,300.95	0.42
		372,539.00	1.00	685,912.00	0.99
		1,000.00	0.01	0.00	0.00
		72,681.50	0.25	158,164.30	0.75
		114,970.08	0.30	205,657.22	0.30
		100,000.00	1.00	350,000.00	1.00
		0.00	0.00	0.00	0.00
		22,892.60	0.48	54,392.00	0.52
		32,399.54	0.36	91,969.78	0.36

364,259.66 .
 (11,526,750.00) , 가 (1,111.17) .
 가가 (5,023,554.74) , 가
 가 (879.86) .
 49,314.91 .
 (175,491.71) , (158,164.30) , (64,750.00) ,
 (54,392.00) , 가 (22,903.85) .
 가가 (299,313.88) , 가가
 (45,973.72) .
 52% .

) .

6-21 , , .
 6,351.49 .
 (17,461.54) , (14,125.00) , (6,666.67) .
 가가 (27,843.51) , 가가 (1,032.80)

4) .

가)

6-22 , , , .
 88,933.05 ,
 (161,342.81) , (126,234.54) , (116,238.00) (98,299.14) ,
 가 (44,303.25) .
 가가 (265,887.10) , 가 (22,584.77) .
 25,620.06 ,
 (62,162.62) , (52,234.95) , (35,687.93) ,
 (31,688.25) , (26,116.12) . 가가
 (95,066.38) , 가 (2,991.37) .
 61,205.61 ,
 (137,497.01) , (90,546.61) , (88,343.27) , (84,549.75) .
 가가 (274,135.79) ,
 가가 (20,578.39) .

		150,000.00	1.00	0.00	0.00
		0.00	1.00	0.00	0.00
		6,351.49	1.00	0.00	0.00
		19,339.60	0.00	0.00	0.00
		50,000.00	1.00	0.00	0.00
		0.00	1.00	0.00	0.00
		14,125.00	1.00	0.00	0.00
		17,939.88	0.00	0.00	0.00
		2,000.00	1.00	0.00	0.00
		0.00	1.00	0.00	0.00
		666.67	1.00	0.00	0.00
		1,032.80	0.00	0.00	0.00
		90,000.00	1.00	0.00	0.00
		0.00	1.00	0.00	0.00
		5,671.15	1.00	0.00	0.00
		18,926.06	0.00	0.00	0.00
		40,000.00	1.00	0.00	0.00
		0.00	1.00	0.00	0.00
		4,062.50	1.00	0.00	0.00
		11,433.69	0.00	0.00	0.00
		0.00	0.00	0.00	0.00
		0.00	0.00	0.00	0.00
		0.00	-	0.00	-
		0.00	-	0.00	-
		0.00	0.00	0.00	0.00
		0.00	0.00	0.00	0.00
		0.00	-	0.00	-
		0.00	-	0.00	-
		150,000.00	1.00	0.00	0.00
		0.00	1.00	0.00	0.00
		5,241.38	1.00	0.00	0.00
		27,843.51	0.00	0.00	0.00
		60,000.00	1.00	0.00	0.00
		0.00	1.00	0.00	0.00
		17,461.54	1.00	0.00	0.00
		26,155.35	0.00	0.00	0.00
		12,828.00	1.00	0.00	0.00
		0.00	1.00	0.00	0.00
		4,264.90	1.00	0.00	0.00
		4,926.50	0.00	0.00	0.00
		50,000.00	1.00	0.00	0.00
		0.00	1.00	0.00	0.00
		6,666.67	1.00	0.00	0.00
		15,886.50	0.00	0.00	0.00

		1,368,000.00	303,054.00	1,357,568.00
		0.00	0.00	(303,054.00)
		88,933.05	25,620.06	61,205.61
		174,149.77	52,200.63	169,833.81
		584,021.00	74,584.00	534,835.00
		3,423.00	350.00	(58,532.00)
		116,238.00	31,688.25	84,549.75
		195,062.99	29,264.53	187,739.18
		149,800.00	58,730.00	91,070.00
		0.00	0.00	0.00
		30,133.33	12,060.67	18,072.67
		58,771.50	22,909.62	35,904.26
		1,368,000.00	303,054.00	1,357,568.00
		0.00	0.00	(303,054.00)
		81,203.94	26,116.12	55,087.82
		265,887.10	61,311.36	274,135.79
		204,000.00	41,920.00	174,400.00
		0.00	0.00	0.00
		50,470.28	10,558.68	39,911.59
		59,033.51	13,135.87	47,470.02
		110,613.60	180,971.68	24,550.00
		0.00	0.00	(88,585.45)
		43,357.98	52,234.95	(8,876.98)
		41,615.65	80,890.45	43,070.07
		66,084.00	10,203.00	56,204.96
		19,971.00	3,738.00	16,233.00
		44,303.25	5,751.26	38,551.99
		22,584.77	2,991.37	20,578.39
		716,625.00	61,650.00	662,036.76
		0.00	0.00	(10,220.00)
		98,299.14	9,955.86	88,343.27
		182,058.28	14,300.53	176,276.38
		426,000.00	263,700.00	162,300.00
		0.00	0.00	(8,800.00)
		80,704.49	62,162.62	18,541.87
		131,799.72	95,066.38	44,552.16
		550,000.00	144,500.00	550,000.00
		19,116.00	0.00	9,982.00
		161,342.81	23,845.80	137,497.01
		166,538.39	44,769.94	168,070.71
		460,000.00	204,545.90	435,800.00
		0.00	0.00	(80,800.00)
		126,234.54	35,687.93	90,546.61
		164,995.60	58,631.07	151,229.62

												가	
		241,400.00	1.00	128,000.00	1.00	42,550.00	0.84	6,535.00	0.31	11,257.00	0.12	2,800.00	1.00
		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		12,221.24	0.46	8,445.99	0.26	1,530.01	0.08	173.44	0.01	185.99	0.00	115.02	0.01
		34,097.30	0.36	21,729.36	0.31	5,391.15	0.15	792.66	0.05	1,070.43	0.02	454.30	0.10
		40,000.00	0.81	64,235.00	0.86	3,536.00	0.26	4,500.00	0.09	1,015.00	0.03	2,000.00	0.06
		250.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		9,853.25	0.47	14,153.25	0.29	855.75	0.05	618.75	0.01	214.38	0.01	500.00	0.01
		13,858.64	0.31	22,765.84	0.39	1,452.21	0.09	1,576.15	0.03	405.77	0.01	925.82	0.02
		53,500.00	0.91	3,500.00	0.44	1,080.00	0.03	0.00	0.00	0.00	0.00	400.00	0.01
		1,450.00	0.53	1,000.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		12,333.40	0.66	1,713.40	0.31	196.67	0.01	0.00	0.00	0.00	0.00	66.67	0.00
		23,015.97	0.15	1,050.78	0.15	434.59	0.01	0.00	0.00	0.00	0.00	163.30	0.00
		183,000.00	1.00	120,000.00	0.58	10,055.00	0.84	54.00	0.31	0.00	0.00	832.00	1.00
		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		12,498.00	0.28	8,417.31	0.17	905.15	0.12	4.15	0.01	0.00	0.00	59.12	0.04
		37,218.02	0.32	25,482.96	0.22	2,332.64	0.23	11.73	0.06	0.00	0.00	209.61	0.20
		26,000.00	0.99	27,500.00	1.00	9,600.00	0.32	120.00	0.00	0.00	0.00	0.00	0.00
		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		3,680.00	0.38	5,257.74	0.49	918.75	0.05	7.50	0.00	0.00	0.00	0.00	0.00
		7,460.19	0.36	8,758.55	0.37	2,604.92	0.10	30.00	0.00	0.00	0.00	0.00	0.00
		16,221.00	1.00	87,350.00	0.49	5,152.00	0.03	6,535.00	0.04	11,257.00	0.06	200.00	0.00
		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		5,624.00	0.58	23,543.43	0.19	13,605.71	0.01	1,376.38	0.01	2,176.00	0.02	57.14	0.00
		7,114.01	0.50	40,309.41	0.27	2,293.30	0.01	2,551.25	0.02	4,269.58	0.03	97.59	0.00
		2,520.00	0.55	5,040.00	0.49	2,643.00	0.44	0.00	0.00	0.00	0.00	0.00	0.00
		1,260.00	0.25	5.04	0.00	798.00	0.21	0.00	0.00	0.00	0.00	0.00	0.00
		1,905.00	0.36	2,176.26	0.35	1,670.00	0.30	0.00	0.00	0.00	0.00	0.00	0.00
		710.56	0.14	2,097.62	0.23	824.18	0.10	0.00	0.00	0.00	0.00	0.00	0.00
		61,650.00	1.00	30,000.00	0.98	1,700.00	0.22	50.00	0.29	20.00	0.12	0.00	0.00
		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		7,007.24	0.61	2,050.34	0.21	288.30	0.04	4.48	0.02	1.38	0.01	0.00	0.00
		13,420.84	0.39	5,812.71	0.35	510.36	0.06	13.78	0.07	5.16	0.03	0.00	0.00
		241,400.00	0.92	128,000.00	0.86	42,550.00	0.20	3,000.00	0.03	2,400.00	0.04	2,800.00	0.04
		0.00	0.04	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		23,532.05	0.50	24,316.27	0.37	6,825.54	0.06	483.67	0.01	379.23	0.01	307.69	0.01
		65,654.62	0.40	41,419.28	0.28	14,223.57	0.09	926.88	0.01	767.86	0.01	810.37	0.01
		140,000.00	0.97	15,970.00	0.80	25,605.00	0.56	900.00	0.11	1,500.00	0.06	2,000.00	0.08
		0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
		15,837.00	0.47	3,294.00	0.24	3,416.80	0.18	190.00	0.03	174.00	0.01	200.00	0.01
		43,675.63	0.39	6,072.13	0.30	7,892.44	0.18	303.50	0.04	467.72	0.02	632.46	0.03
		152,406.55	0.99	45,668.35	1.00	10,297.00	0.30	200.00	0.01	600.00	0.01	2,500.00	0.08
		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		25,793.04	0.54	7,768.62	0.32	753.13	0.04	16.53	0.00	72.00	0.00	197.33	0.01
		48,718.53	0.37	13,485.14	0.44	2,648.45	0.10	51.49	0.00	191.36	0.00	647.94	0.02

6-24.

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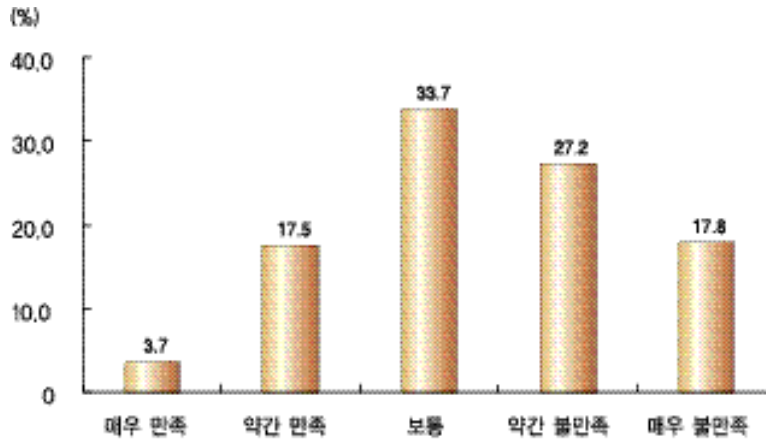
				()	
		1.00	10.00	199.61	10.00
		(17.10)	0.00	0.00	0.00
		0.30	1.21	6.82	0.24
		1.84	2.14	26.42	1.06
		0.98	3.43	2.93	10.00
		(17.10)	0.00	0.33	0.00
		(1.49)	1.19	0.95	1.46
		6.31	1.59	1.01	3.76
		0.71	0.83	1.07	0.17
		0.21	0.75	0.64	0.00
		0.52	0.79	0.85	0.06
		0.19	0.06	0.20	0.08
		1.00	5.19	3.78	3.00
		(6.09)	0.00	0.00	0.00
		0.10	1.43	0.82	0.18
		1.55	1.95	0.97	0.61
		1.00	0.75	8.45	1.14
		0.68	0.32	0.73	0.00
		0.81	0.54	3.07	0.19
		0.11	0.30	3.17	0.42
		1.00	0.00	0.99	0.00
		(0.96)	0.00	0.14	0.00
		0.28		0.48	0.00
		0.80		0.38	0.00
		0.93	0.00	0.00	0.00
		0.81	0.00	0.00	0.00
		0.86	-		0.00
		0.05	-		0.00
		1.00	0.00	125.00	0.00
		0.09	0.00	0.00	0.00
		0.72	0.00	12.92	0.00
		0.30	0.00	29.98	0.00
		0.73	0.37	11.22	2.98
		(2.20)	0.00	0.00	0.00
		(0.26)	0.20	3.50	0.67
		1.05	0.17	4.19	1.01
		1.00	4.33	2.27	0.50
		0.22	0.10	0.23	0.00
		0.78	1.66	0.90	0.08
		0.25	1.99	0.73	0.15
		0.98	10.00	199.61	0.56
		(1.55)	0.25	0.00	0.00
		0.60	3.55	20.20	0.07
		0.64	5.59	56.89	0.17

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2.

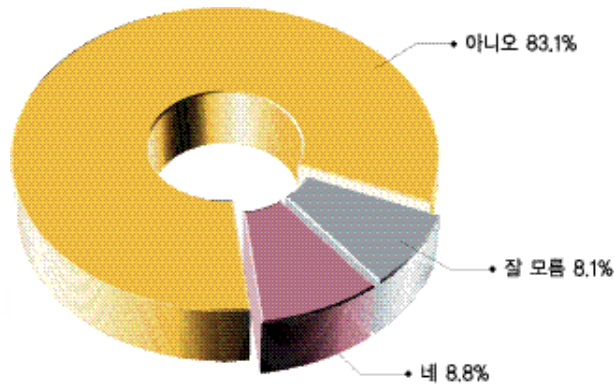
가.

1)



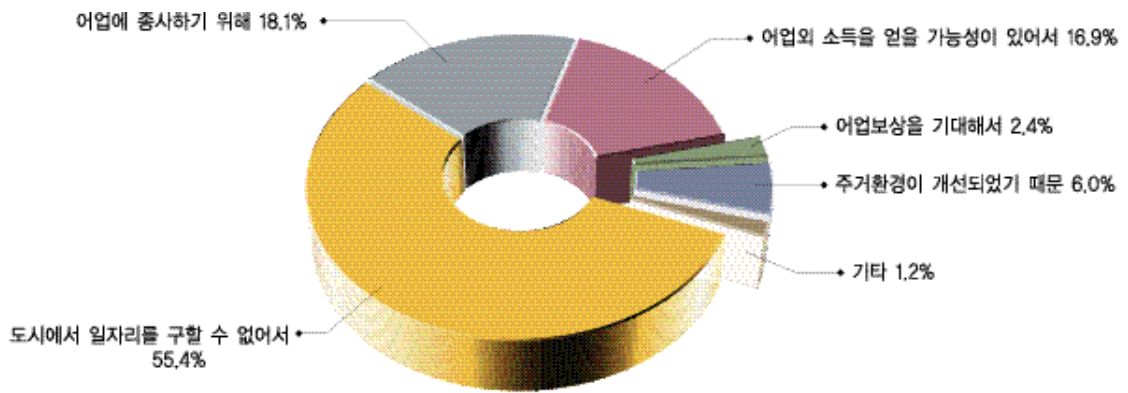
6-1.

981
3.7%, " " 17.5%
" " 33.7%
" " " "
" 27.2%,
17.8% 45.0%

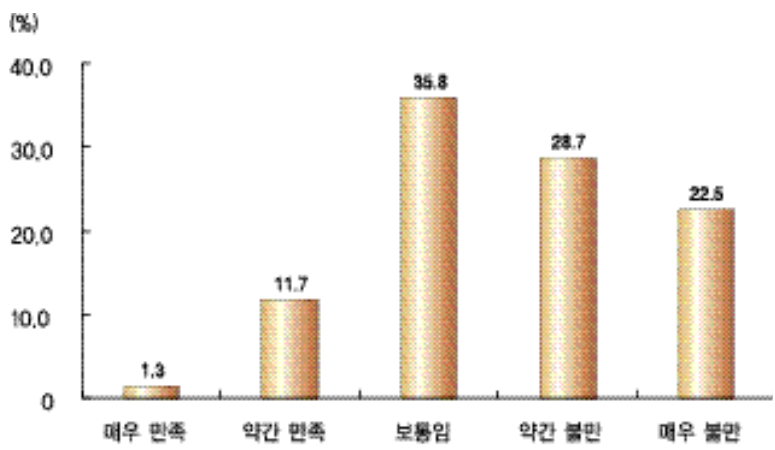


가
, 20 40 가
가
980 83.1%
가
, 가
8.8% 가
가 ,

가
" 가 55.4%
" " 가 "가 18.1%, 16.9%
가



6-3. 가

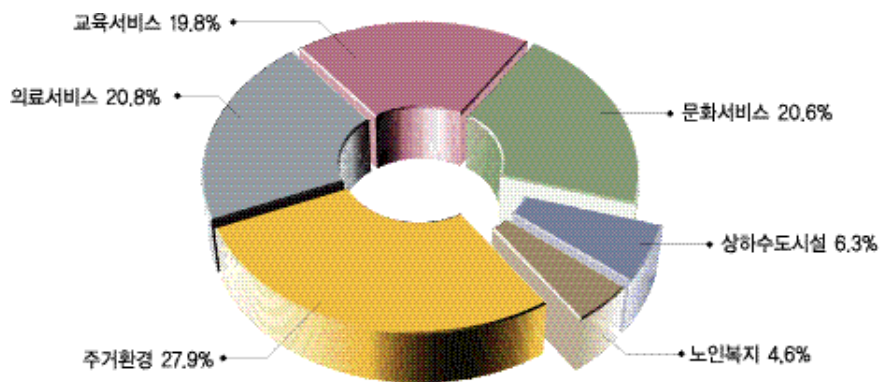


6-4.

35.8%

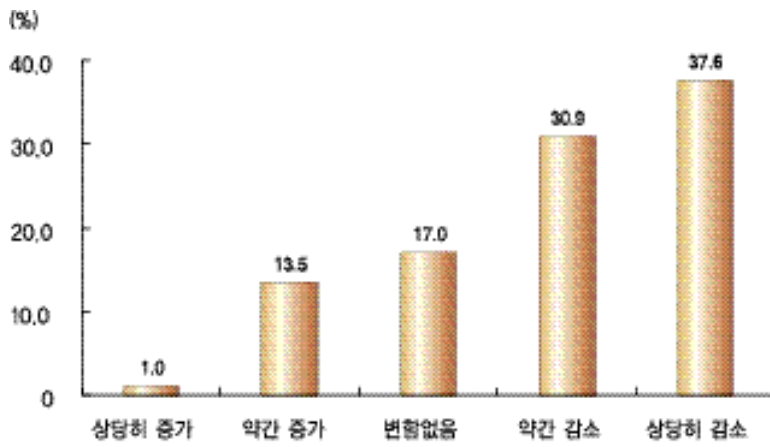
가 20% 가
 ,
 . 가 " "
 " , " "
 51.2% 2 1
 " "
 "가 977

968 27.9% 가
 "가 20.8%, 20.6%, 19.8%



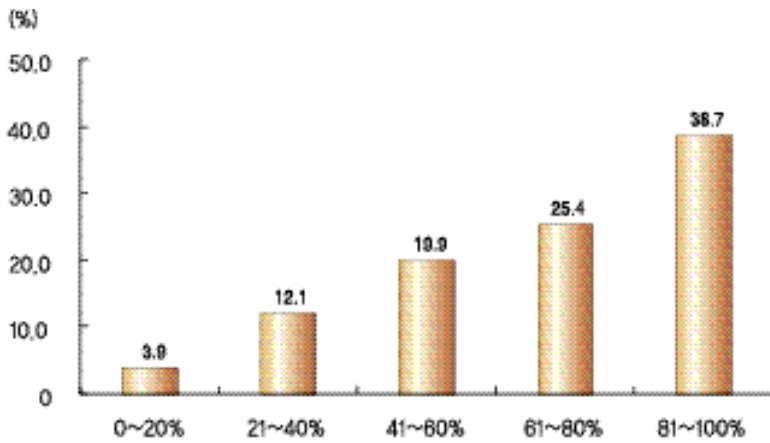
6-5.

2)



6-6. 5

5 가
 980 " "
 가 37.6% 가 "
 "가 30.9% ,
 68.5%가
 가
 14.5%

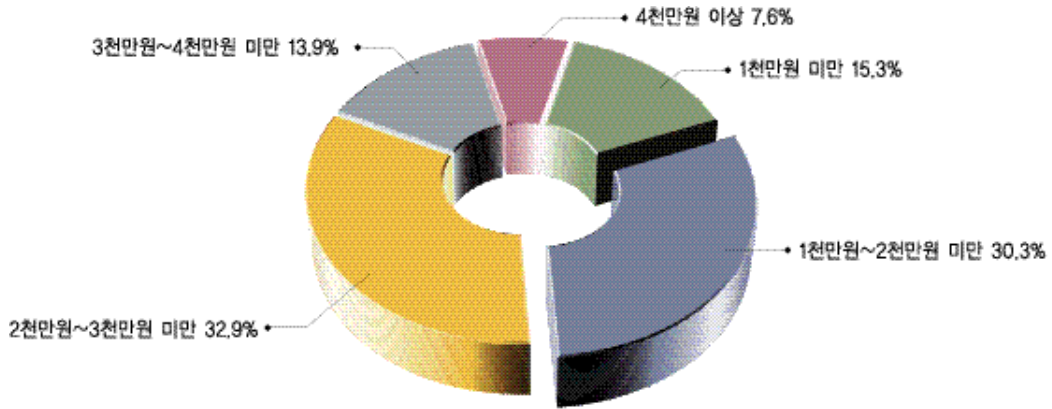


6-7.

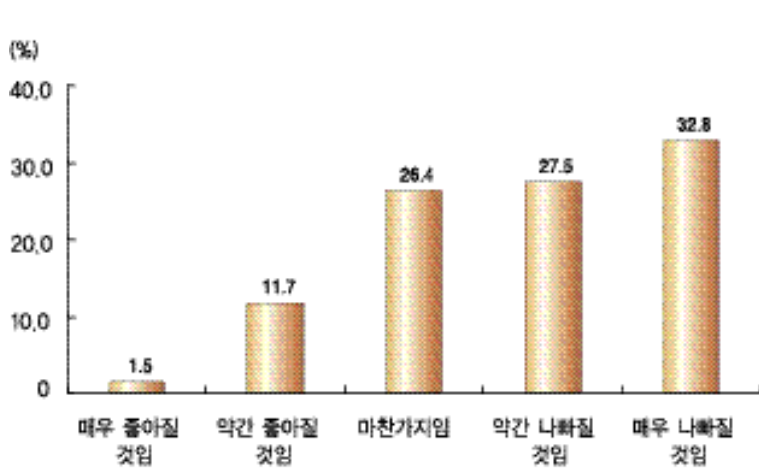
974
 38.7%가 "81 100%" "61
 80%" 25.4% ,
 60%

EEZ
 가

3 " 32.9% "1 2 " 30.3% ,
 가 "1 " 15.3% "4 "
 7.6%

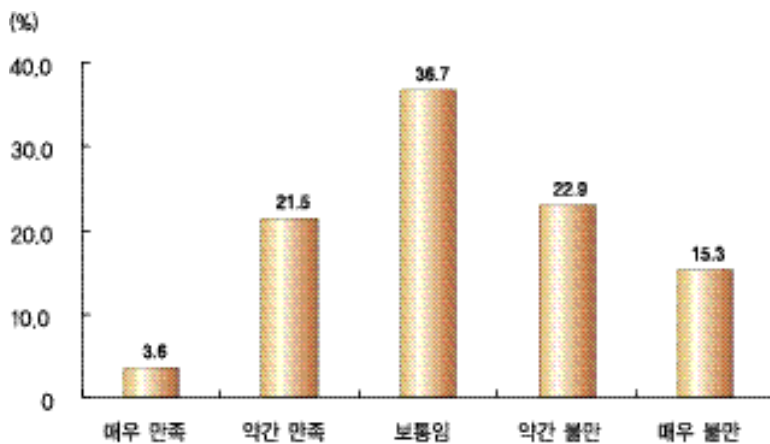


6-8.



6-9. 5

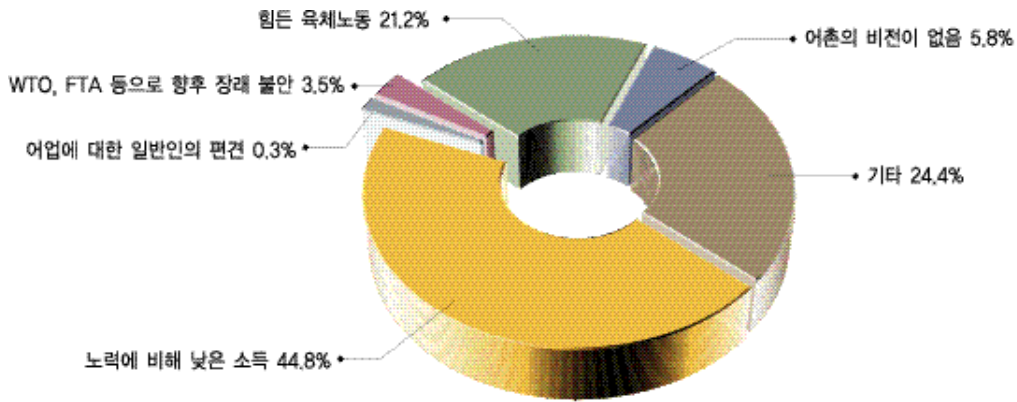
5
 가
 " 가
 981 32.8%
 가 " 27.5%
 13.2%
 가



6-10.

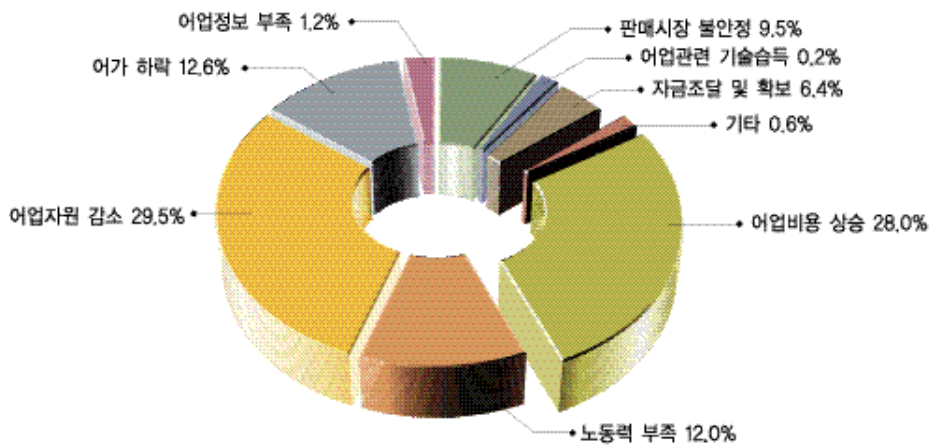
60%
 981 36.7% 가 "
 " 25.1% 가
 38.2% ,

44.8% 가 " " 21.2%
 , 3D
 " " "WTO, FTA 가
 " 5.8%, 3.5% ,



6-11.

3 980 29.5%가 "
 , " " 28.0% . ,
 가 ,
 " 가 " " " 12.6% 12.0%



6-12. (3)

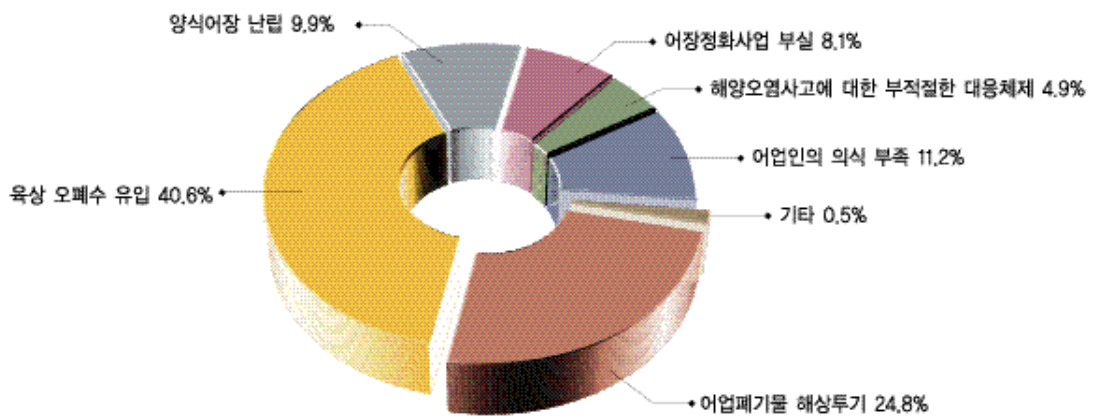
3)

가 978 가 40.6%가 "

" , " " 24.8%

" 11.2% , " " "

" 8.1% 가



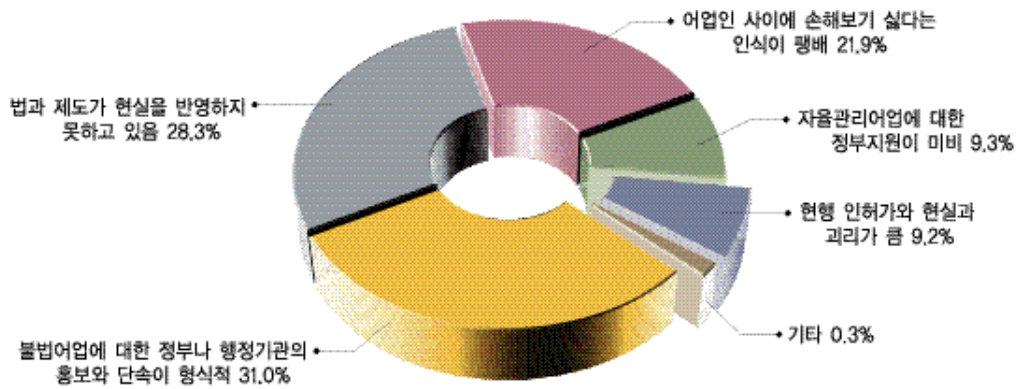
6-13.

가 971 가 31.0%가 "

" , " 가

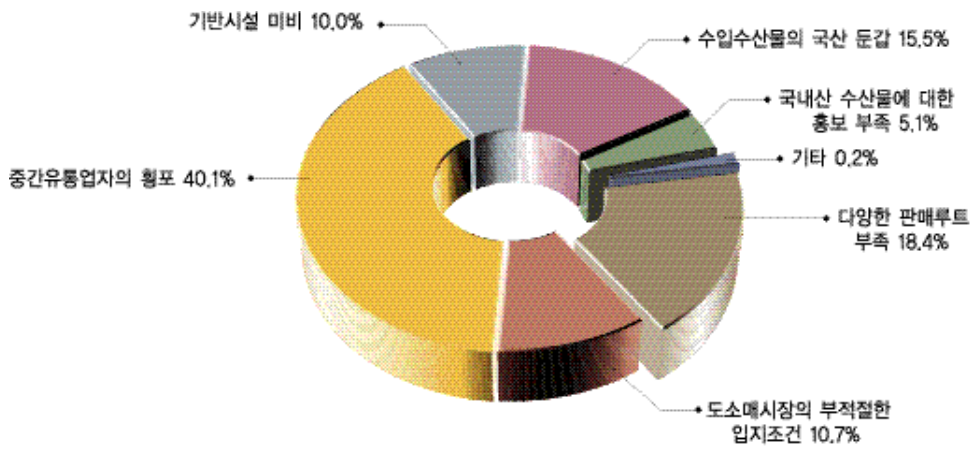
" 28.3% 가

" 21.9% , " 가



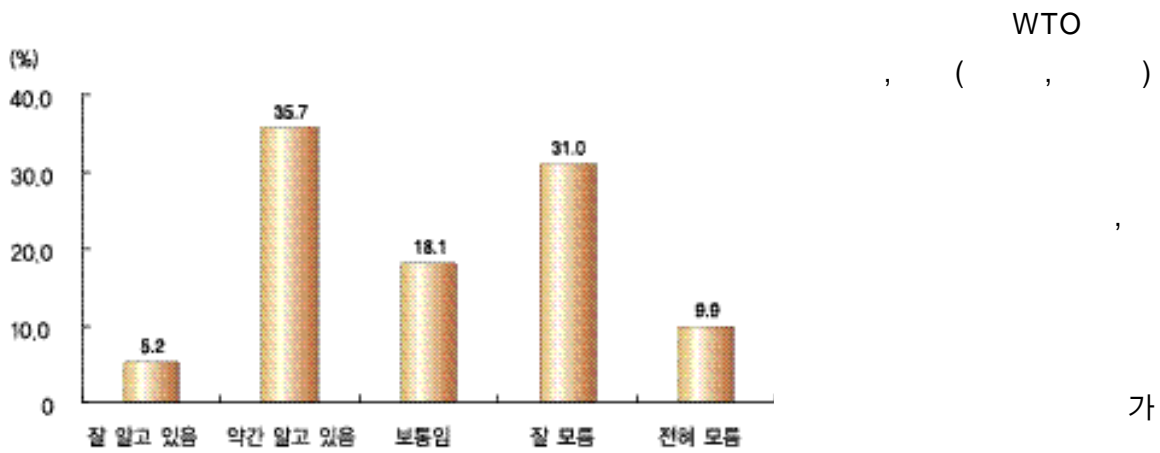
6-14.

가가 , 가가
 가
 974 가 " " 40.1% 가
 " " 18.4% " " .
 " 15.5% 10.7% .



6-15.

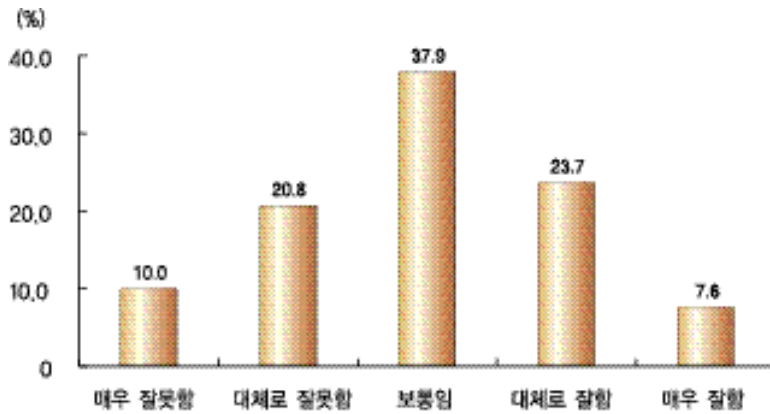
가 가 ,
 (WTO, WTO)



6-16. WTO ()

가
 976 " "가 5.2%,
 " " 35.7% 40.9% .
 " " " 31.0%, 9.9%, 40.9%

4) 가



6-17.

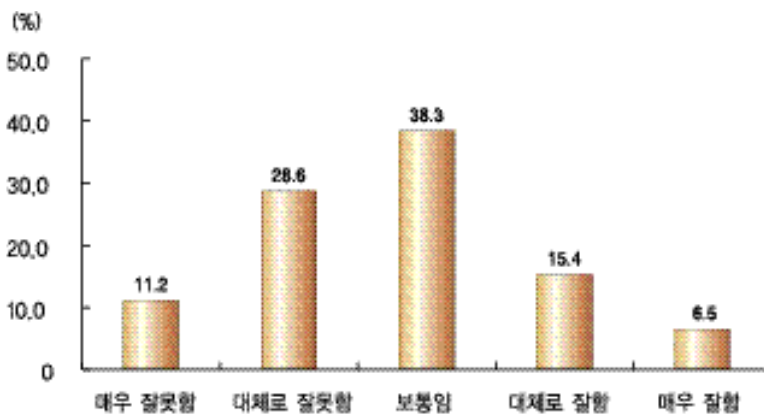
가

" 7.6% 31.3% , " "

가

가

952 가 " 가 37.9% 가 "가 23.7%, " 30.8%



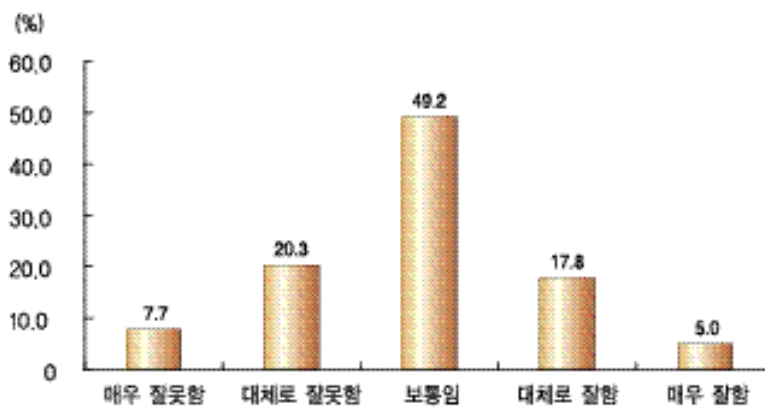
6-18.

가

가가 38.3% 가 가가 39.8% 21.9%

가

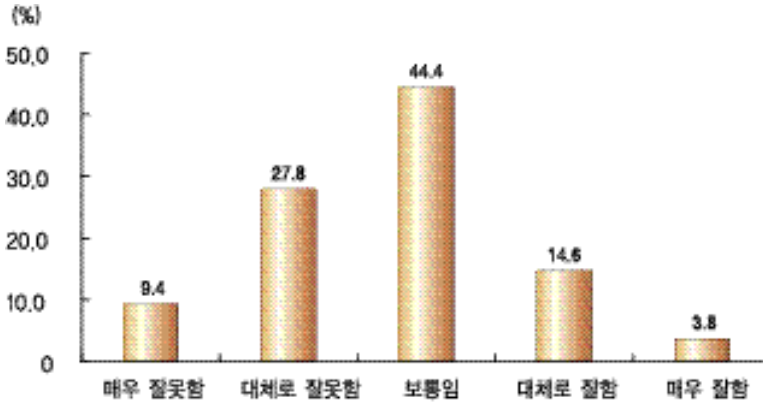
가



6-19.

가

49.2% 가 "가 28.0%, 가 22.8%

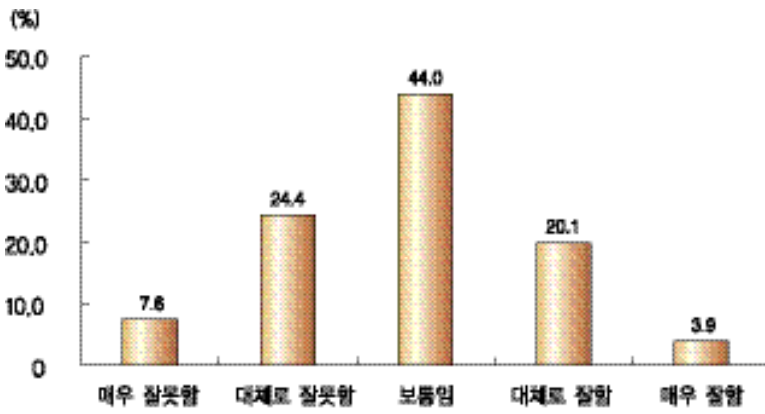


6-20.

가

"가 20.3%, " 7.7% , " " 가가 37.2% 22.8%

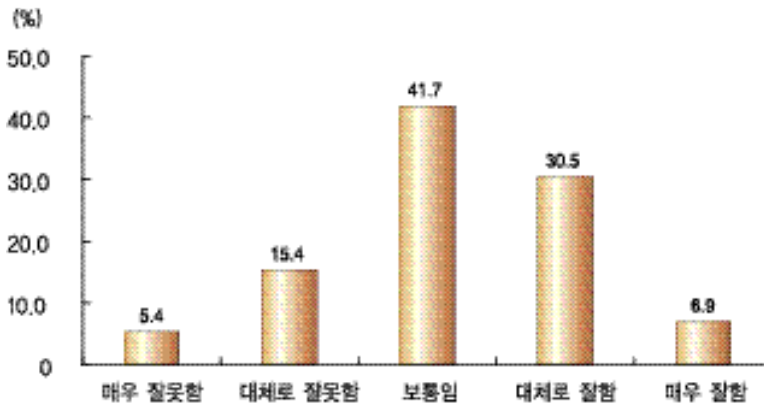
가
1980
" "
가 941
44.4% 가
" "
" 14.6%, 3.8%



6-21.

가

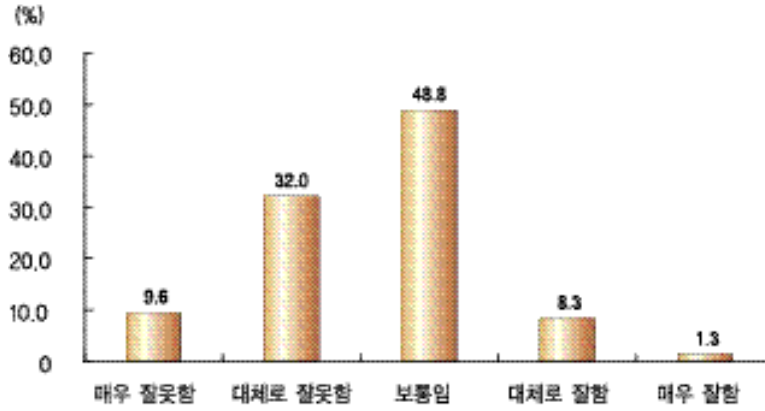
" "가
940 44.0% 가
가
32.0%,
24.0% 가



6-22.

가

939 가 41.7%가 "
" 가
가가 37.4%
20.8%

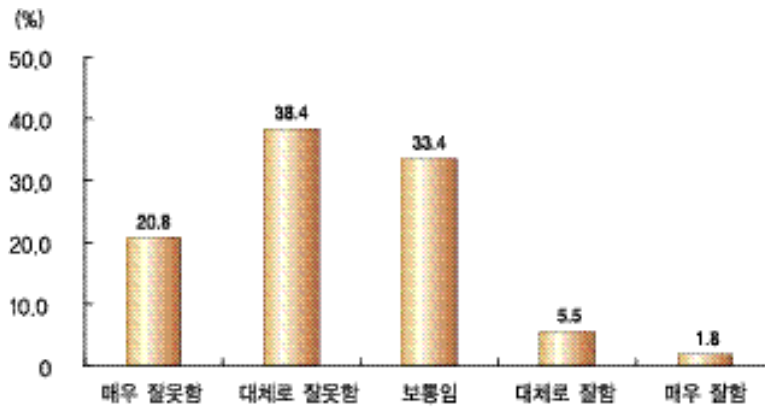


6-23.

가

935 48.8%
 " "
 가
 " "가
 32.0%, "
 9.6% , 가가
 41.6%

가

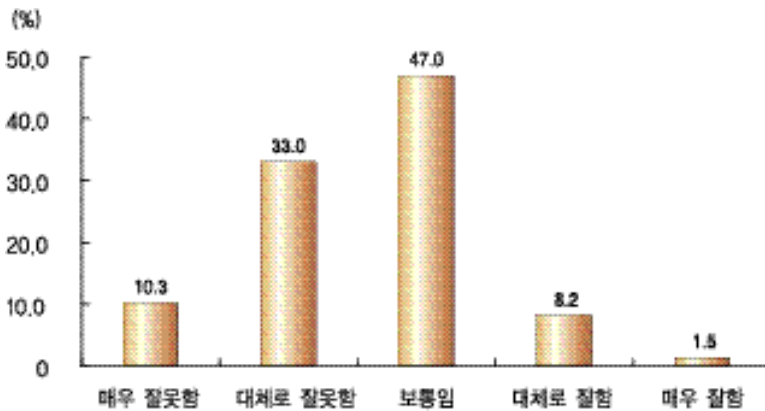


6-24.

가

WTO
 FTA
 가
 가
 935 " "
 33.4% "
 "가 38.4% , "
 "가 20.8% 59.2%

가



6-25.

가

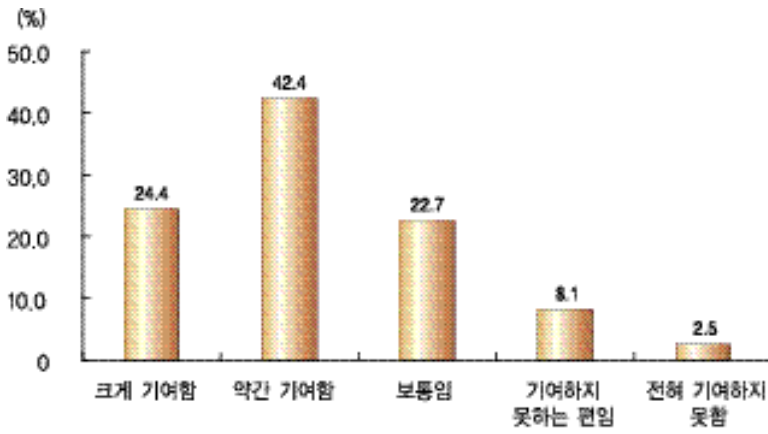
가

가가
 가
 930
 가
 47.0%가 "
 " "
 33.0%, " " 10.3%
 가
 43.3%
 가
 9.7%

가

가

1)



42.4% "

24.4% "

975

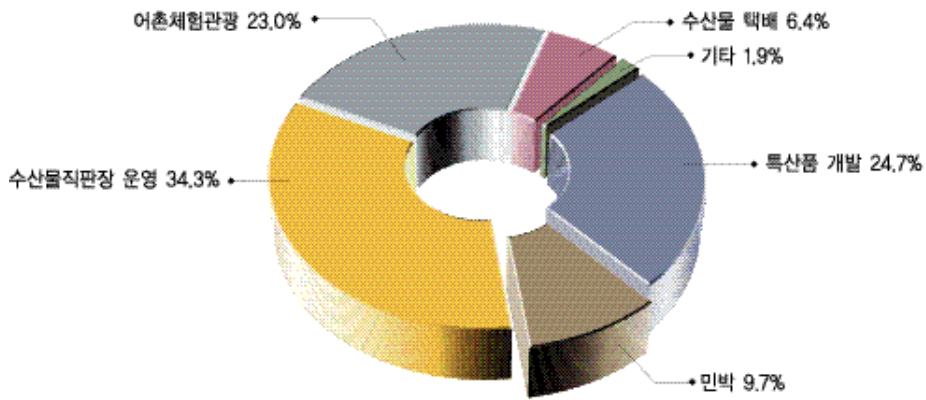
66.8%

6-28.

가

34.3% 가

, 24.7% "



6-29. 가

2) 가

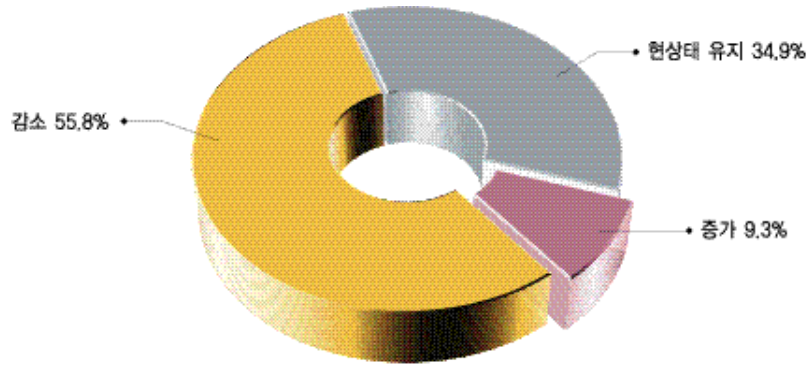
가

55.8% "

, 34.9% "

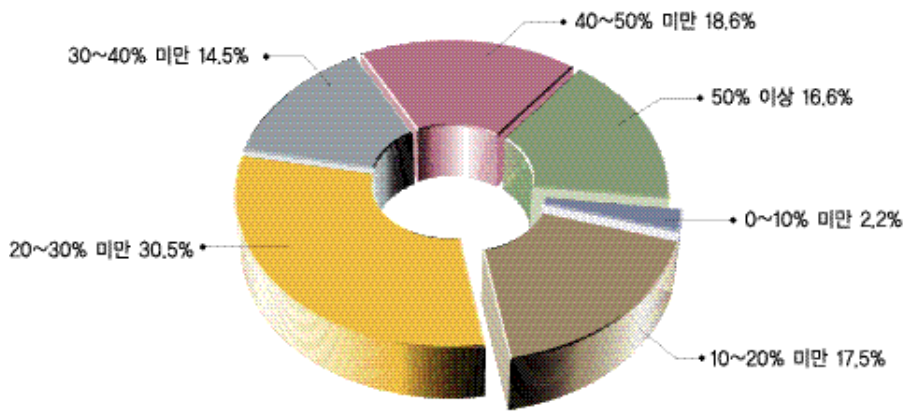
." 가

9.3%



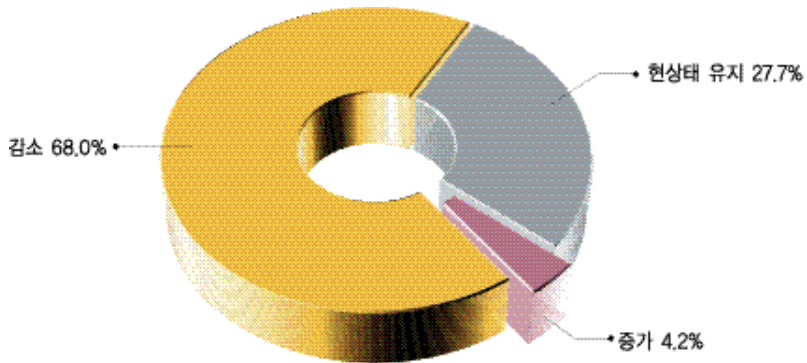
6-30.

가
 537 30.5% "20 30% " "40 50% ", "10
 20% ", "50% ", "30 40% " 18.6%, 17.5%, 16.6%, 14.5% 가
 "20 30% " 가



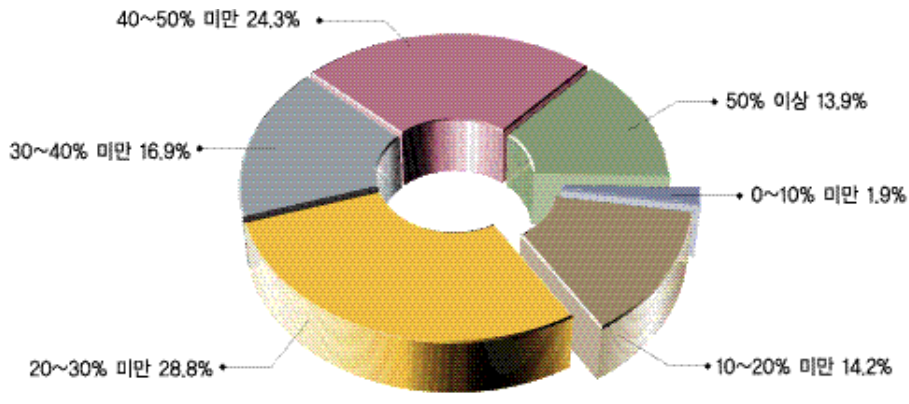
6-31.

가
 973 가 68.0% " " " 27.7%, 4.2%
 " " 가 " "



6-32. 가

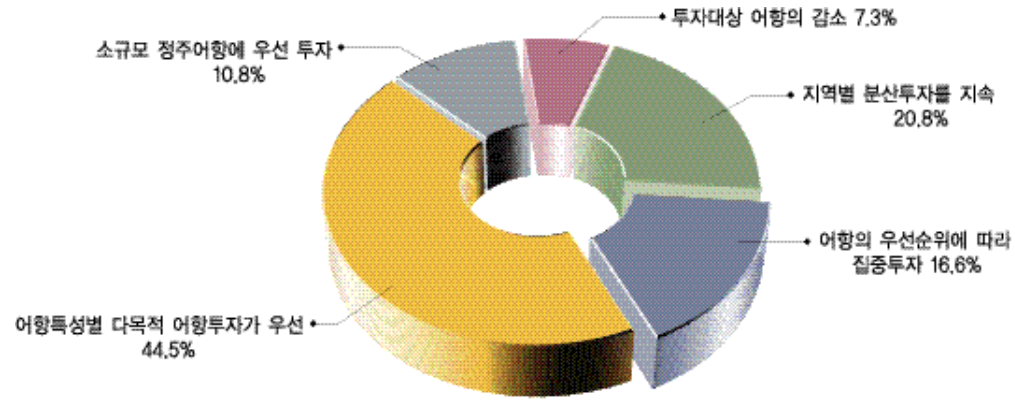
가 ,
 646 가 28.8% "20 30% "
 . "40 50% " 가 가
 24.3% . "30 40% ", "10 20% ", "50% " 16.9%,
 14.2%, 13.9% 가 .
 가 "20 30% " 가
 , "40 50% " 가 .



6-33. 가

3)

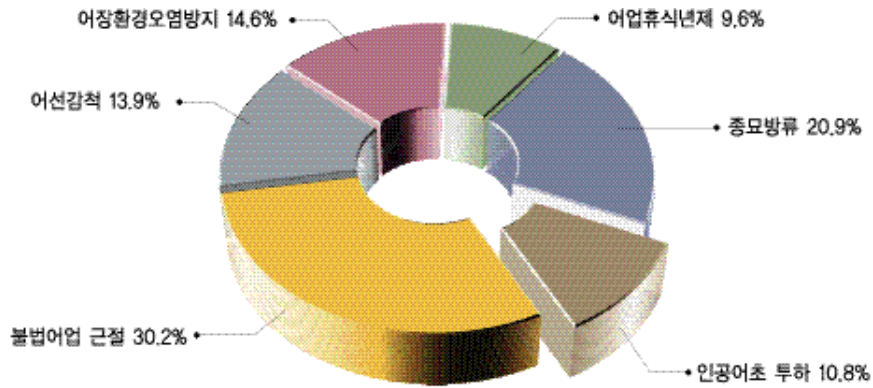
" 가 "가
 972 가 44.5% " 가 "가
 "가 20.8% , " " 16.6%, "
 " 10.8%



6-34.

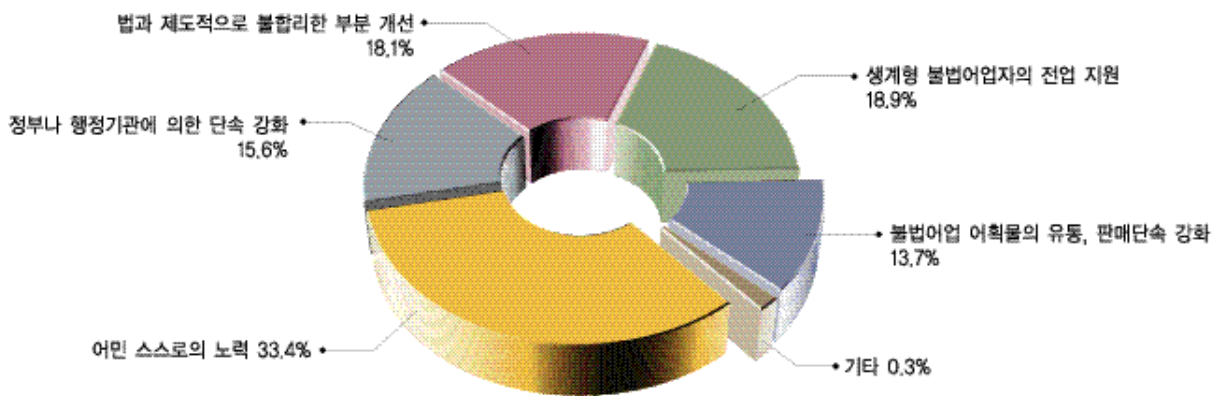
가
 969 29.5%가 " 가
 "가 19.0%가 " 가 " "
 " 17.2% "
 " " "
 14.4% 14.3%

978 가 30.2% " " 가
 " " 20.9% , "
 " " , " 10%



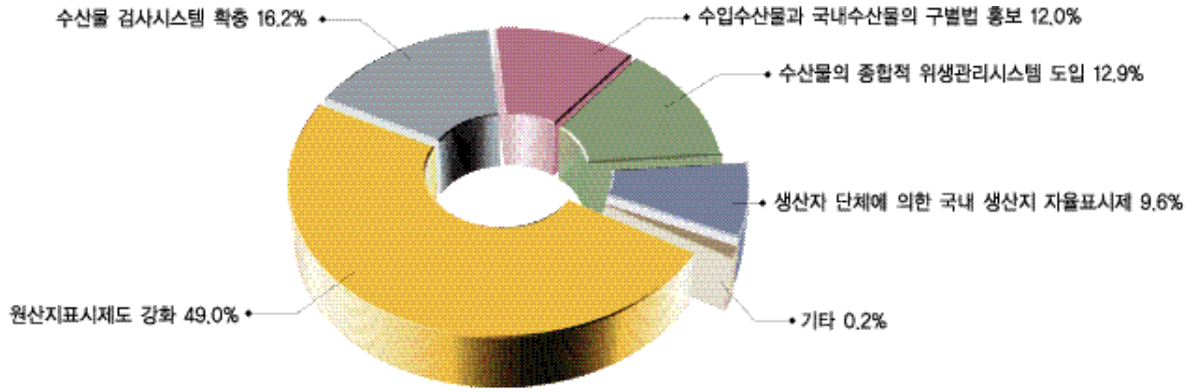
6-38.

가
 , 976 가 33.4%가 "
 " 18.9%, "
 " , " 가 18.1%, 15.6%, 13.7%



6-39.

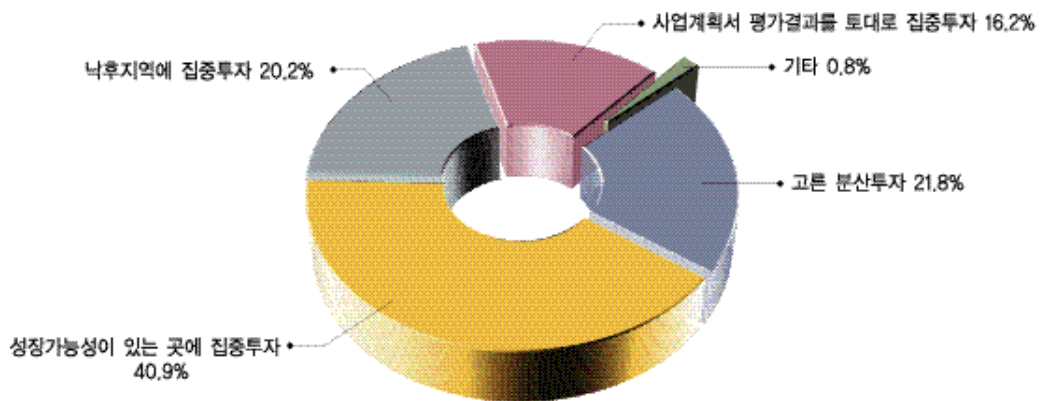
가 가 ,
 973 " " (49.0%)
 " " , "
 " 16.2%, 12.9%, 12.0% 가



6-40.

4) 가

가 , 가 , 가 , 975 가
 40.9% " 가 " 가
 " " 21.8%, " 20.2%, 가
 " 16.2% , , 가



6-41.

가 , 가 가 가

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