Here’s is a sample script that calculates the area occupied, abundance and biomass of plaice (spec = 40) in the 4VWX ( strata 440-495) survey. There are select statements to use the strata associated with a NAFO division. The drop table statements help you when you run the script multiple times.

To estimate numbers or biomass per tow, divide by 423975, the number of trawlable units in the summer survey.

Area occupied is calculated in square nautical miles. The total surveyed area is 50032 nm2. Multiply by 3.4299 to get km2 (171604 km2 total)

/\*the first part counts the number of type 1 sets in each stratum by year \*/

drop table temp\_rv\_stratcount;

create table temp\_rv\_stratcount as

select  to\_char(sdate,'yyyy')year,strat,count(setno)numsets

from groundfish.gsinf

where mission in (select mission from groundfish.gsmissions where season='SUMMER')

and type=1

--and (strat = '44060' or strat='461' or strat='465' or strat between '470' and '495')

--and (strat = '456' or strat between '458' and '495' or strat = '498')

--and (strat = '456'or strat between '458' and '495')

and (strat between '440' and '495')

--and (strat between '457' and '463' or strat between '465' and '495' or strat = '498')

group by to\_char(sdate,'yyyy'),strat;

drop table temp\_caught;

create table temp\_caught as

select  to\_char(a.sdate,'yyyy')year,b.spec,a.strat,sum(b.totwgt/(a.dist/1.75))weight,

sum(b.totno/(a.dist/1.75))nmber,count(a.setno)caught

from groundfish.gsinf a,groundfish.gscat b

where a.type=1

--and (strat = '460' or strat='461' or strat='465' or strat between '470' and '495')

--and (strat = '456' or strat between '458' and '495' or strat = '498')

--and (strat = '456' or strat between '458' and '495')

--and (strat between '457' and '463' or strat between '465' and '485')

and (strat between '440' and '495')

and a.mission in (select mission from groundfish.gsmissions where season='SUMMER')

and a.mission=b.mission and a.setno=b.setno and b.spec=40

group by to\_char(a.sdate,'yyyy'),b.spec,a.strat;

select  a.year,b.spec,sum(c.area\*b.caught/a.numsets)area\_occupy,

sum((c.area/0.0118006)\*b.weight/a.numsets)area\_wgt,

sum((c.area/0.0118006)\*b.nmber/a.numsets)area\_num

from temp\_rv\_stratcount a, temp\_caught b, groundfish.gsstratum c

where a.year=b.year(+)

--and (a.strat = '460' or a.strat='461' or a.strat='465' or a.strat between '470' and '495')

--and (a.strat = '456' or a.strat between '458' and '495' or a.strat = '498')

--and (a.strat = '456' or a.strat between '458' and '495')

and (a.strat between '440' and '495')

--and (a.strat between '457' and '463' or a.strat between '465' and '495' or a.strat = '498')

and a.strat=b.strat(+)

and a.strat=c.strat and b.spec=40

group by  a.year, b.spec

order by a.year;