In [1]:

```
import numpy as np
import pandas as pd
import matplotlib.pyplot as plt
import seaborn as sns
from sklearn.linear_model import LogisticRegression
from sklearn.preprocessing import StandardScaler
import re
from sklearn.datasets import load_digits
from sklearn.model_selection import train_test_split
```

set31:

In [236]:

```
a=pd.read_csv(r"C:\Users\user\Downloads\Book31.csv")
a
```

Out[236]:

	index	SUBDIVISION	YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
0	552	GANGETIC WEST BENGAL	1901	37.1	58.4	3.9	64.1	121.7	198.0	280.8	275.7	313.5
1	553	GANGETIC WEST BENGAL	1902	0.0	1.2	44.2	103.8	161.6	140.9	347.8	264.8	230.5
2	554	GANGETIC WEST BENGAL	1903	17.5	24.6	37.3	30.6	78.5	201.7	179.6	277.6	300.7
3	555	GANGETIC WEST BENGAL	1904	0.1	23.9	35.6	17.5	160.2	286.7	435.3	241.7	142.8
4	556	GANGETIC WEST BENGAL	1905	30.9	49.6	84.7	84.9	156.8	70.9	525.5	263.6	287.6
...	...	...	...	...	...	...	...	...	...	...	...	...
110	662	GANGETIC WEST BENGAL	2011	2.5	2.7	40.5	75.0	132.6	434.5	219.9	443.2	295.9
111	663	GANGETIC WEST BENGAL	2012	40.7	15.3	4.4	57.7	44.2	146.6	315.0	261.4	246.9
112	664	GANGETIC WEST BENGAL	2013	2.5	10.0	4.8	45.6	195.9	233.4	263.2	401.4	254.0
113	665	GANGETIC WEST BENGAL	2014	0.9	42.2	19.9	1.9	124.4	193.6	298.7	292.6	229.5
114	666	GANGETIC WEST BENGAL	2015	12.9	5.5	19.3	88.7	57.6	247.2	633.1	260.6	164.0

115 rows × 20 columns

In [237]:

```
a.info()
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 115 entries, 0 to 114
Data columns (total 20 columns):
 #   Column       Non-Null Count  Dtype  
---  ------       --------------  -----  
 0   index        115 non-null    int64  
 1   SUBDIVISION  115 non-null    object 
 2   YEAR         115 non-null    int64  
 3   JAN          115 non-null    float64
 4   FEB          115 non-null    float64
 5   MAR          115 non-null    float64
 6   APR          115 non-null    float64
 7   MAY          115 non-null    float64
 8   JUN          115 non-null    float64
 9   JUL          115 non-null    float64
 10  AUG          115 non-null    float64
 11  SEP          115 non-null    float64
 12  OCT          115 non-null    float64
 13  NOV          115 non-null    float64
 14  DEC          115 non-null    float64
 15  ANNUAL       115 non-null    float64
 16  Jan-Feb      115 non-null    float64
 17  Mar-May      115 non-null    float64
 18  Jun-Sep      115 non-null    float64
 19  Oct-Dec      115 non-null    float64
dtypes: float64(17), int64(2), object(1)
memory usage: 18.1+ KB
```

In [238]:

```
b=a.fillna(method='ffill')
b
```

Out[238]:

	index	SUBDIVISION	YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
0	552	GANGETIC WEST BENGAL	1901	37.1	58.4	3.9	64.1	121.7	198.0	280.8	275.7	313.5
1	553	GANGETIC WEST BENGAL	1902	0.0	1.2	44.2	103.8	161.6	140.9	347.8	264.8	230.5
2	554	GANGETIC WEST BENGAL	1903	17.5	24.6	37.3	30.6	78.5	201.7	179.6	277.6	300.7
3	555	GANGETIC WEST BENGAL	1904	0.1	23.9	35.6	17.5	160.2	286.7	435.3	241.7	142.8
4	556	GANGETIC WEST BENGAL	1905	30.9	49.6	84.7	84.9	156.8	70.9	525.5	263.6	287.6
...	...	...	...	...	...	...	...	...	...	...	...	...
110	662	GANGETIC WEST BENGAL	2011	2.5	2.7	40.5	75.0	132.6	434.5	219.9	443.2	295.9
111	663	GANGETIC WEST BENGAL	2012	40.7	15.3	4.4	57.7	44.2	146.6	315.0	261.4	246.9
112	664	GANGETIC WEST BENGAL	2013	2.5	10.0	4.8	45.6	195.9	233.4	263.2	401.4	254.0
113	665	GANGETIC WEST BENGAL	2014	0.9	42.2	19.9	1.9	124.4	193.6	298.7	292.6	229.5
114	666	GANGETIC WEST BENGAL	2015	12.9	5.5	19.3	88.7	57.6	247.2	633.1	260.6	164.0

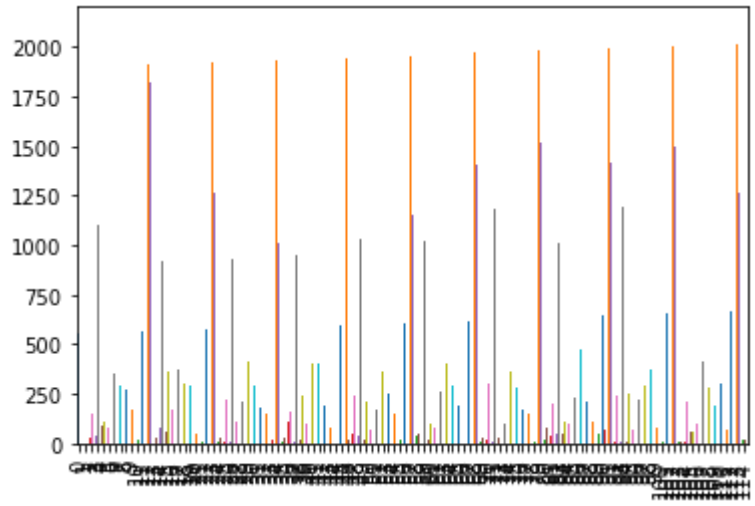
115 rows × 20 columns

In [239]:

```
b.plot.bar(legend=None)
```

Out[239]:

<AxesSubplot:>

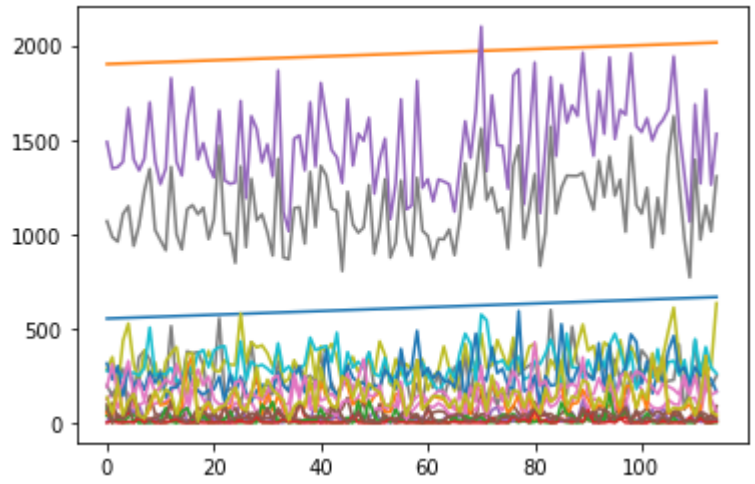


In [240]:

```
b.plot.line(legend=None)
```

Out[240]:

<AxesSubplot:>

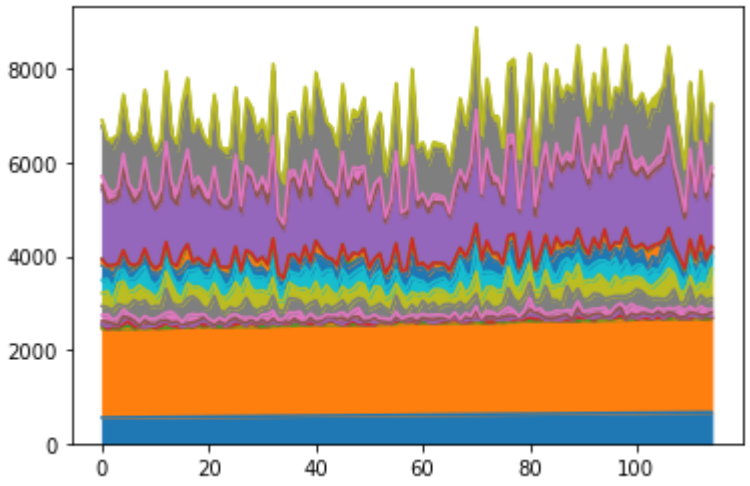


In [241]:

```
b.plot.area(legend=None)
```

Out[241]:

<AxesSubplot:>

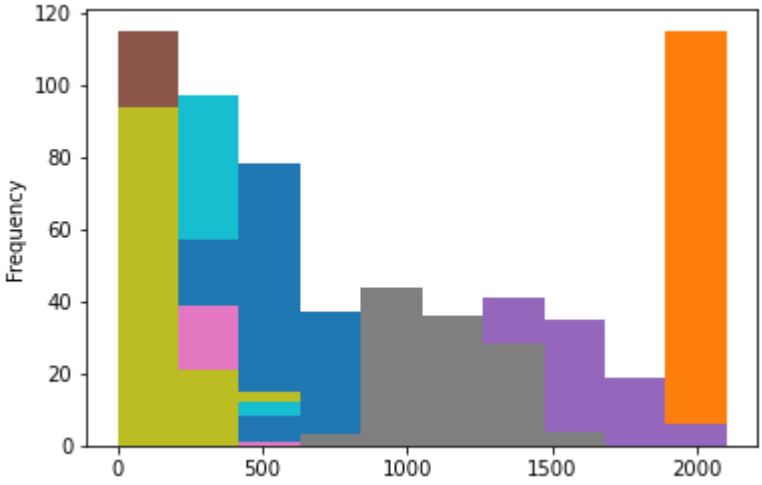


In [242]:

```
b.plot.hist(legend=None)
```

Out[242]:

<AxesSubplot:ylabel='Frequency'>

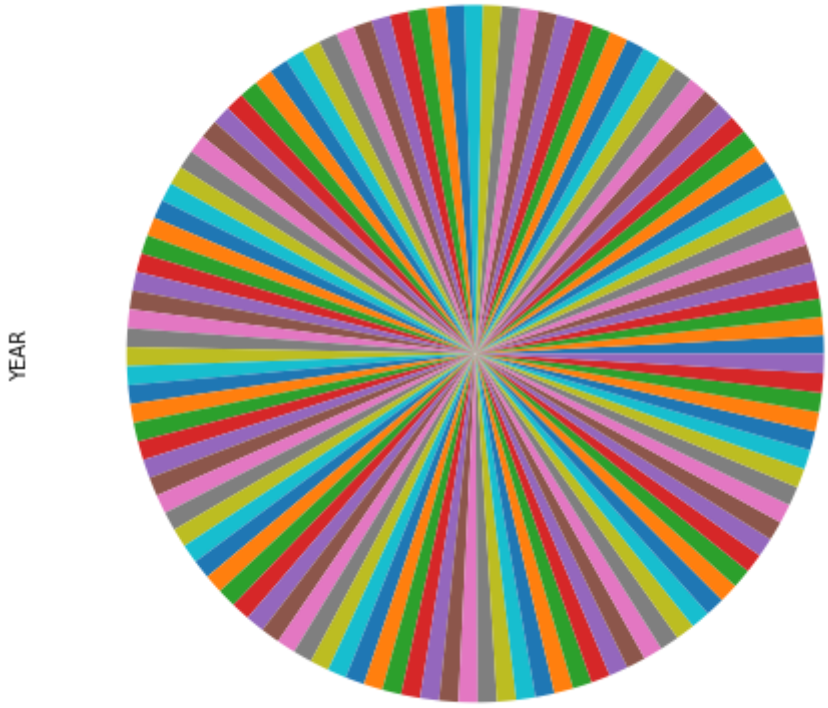


In [243]:

```
b.plot.pie(y='YEAR',figsize=(8,8),labels=None,legend=None)
```

Out[243]:

```
<AxesSubplot:ylabel='YEAR'>
```



set32:

In [244]:

```
a=pd.read_csv(r"C:\Users\user\Downloads\Book32.csv")
a
```

Out[244]:

	index	SUBDIVISION	YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
0	667	ORISSA	1901	39.5	65.1	16.1	51.6	79.0	78.2	288.4	307.7	185.3	
1	668	ORISSA	1902	3.4	0.2	14.2	101.1	56.7	108.3	437.4	349.1	202.7	
2	669	ORISSA	1903	19.7	18.9	10.5	34.6	73.3	154.3	410.4	295.2	265.6	2
3	670	ORISSA	1904	0.2	12.2	20.6	10.1	100.2	342.9	336.7	350.4	227.8	
4	671	ORISSA	1905	24.3	17.2	66.3	56.9	107.5	92.0	330.1	281.4	344.1	
...	...	...	...	...	...	...	...	...	...	...	...	...	
110	777	ORISSA	2011	3.7	16.2	4.9	58.2	75.6	210.1	199.6	358.6	398.7	
111	778	ORISSA	2012	50.8	3.6	0.9	34.8	21.3	169.6	324.3	417.0	242.4	
112	779	ORISSA	2013	3.3	7.8	2.1	53.6	57.7	272.6	380.0	254.9	208.1	3
113	780	ORISSA	2014	0.0	17.6	25.1	11.7	111.9	92.2	496.2	386.3	281.1	
114	781	ORISSA	2015	15.1	3.3	10.5	67.6	32.6	238.6	294.8	264.0	237.0	

115 rows × 20 columns

In [245]:

```
a.info()
```

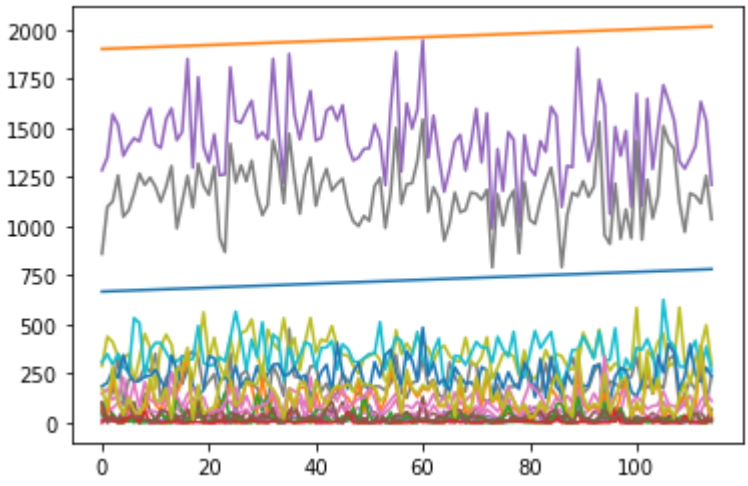
```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 115 entries, 0 to 114
Data columns (total 20 columns):
 #   Column       Non-Null Count  Dtype  
---  ------       --------------  -----  
 0   index        115 non-null    int64  
 1   SUBDIVISION  115 non-null    object 
 2   YEAR         115 non-null    int64  
 3   JAN          115 non-null    float64
 4   FEB          115 non-null    float64
 5   MAR          115 non-null    float64
 6   APR          115 non-null    float64
 7   MAY          115 non-null    float64
 8   JUN          115 non-null    float64
 9   JUL          115 non-null    float64
 10  AUG          115 non-null    float64
 11  SEP          115 non-null    float64
 12  OCT          115 non-null    float64
 13  NOV          115 non-null    float64
 14  DEC          115 non-null    float64
 15  ANNUAL       115 non-null    float64
 16  Jan-Feb      115 non-null    float64
 17  Mar-May      115 non-null    float64
 18  Jun-Sep      115 non-null    float64
 19  Oct-Dec      115 non-null    float64
dtypes: float64(17), int64(2), object(1)
memory usage: 18.1+ KB
```

In [246]:

```
a.plot.line(legend=None)
```

Out[246]:

```
<AxesSubplot:>
```

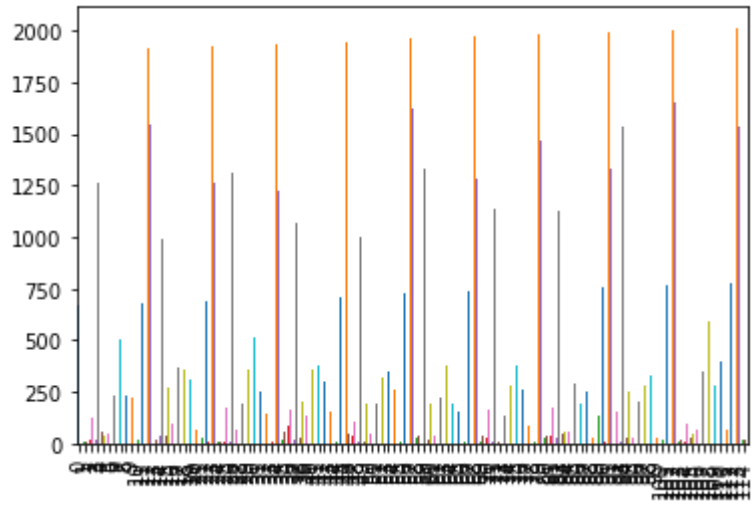


In [247]:

```
a.plot.bar(legend=None)
```

Out[247]:

<AxesSubplot:>

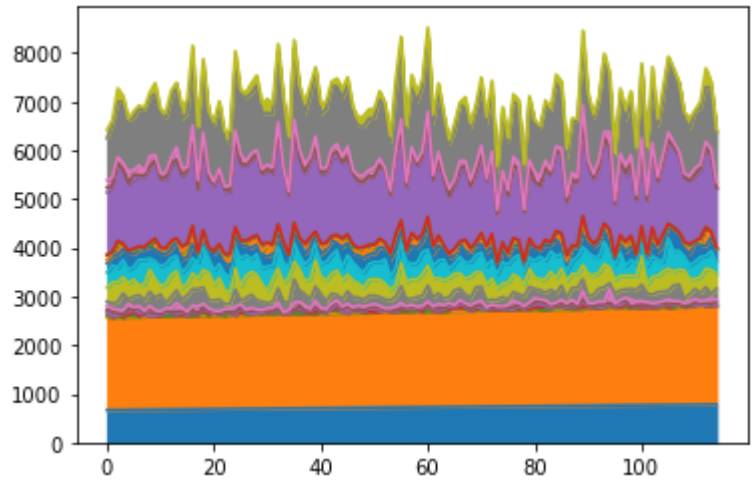


In [248]:

```
a.plot.area(legend=None)
```

Out[248]:

<AxesSubplot:>

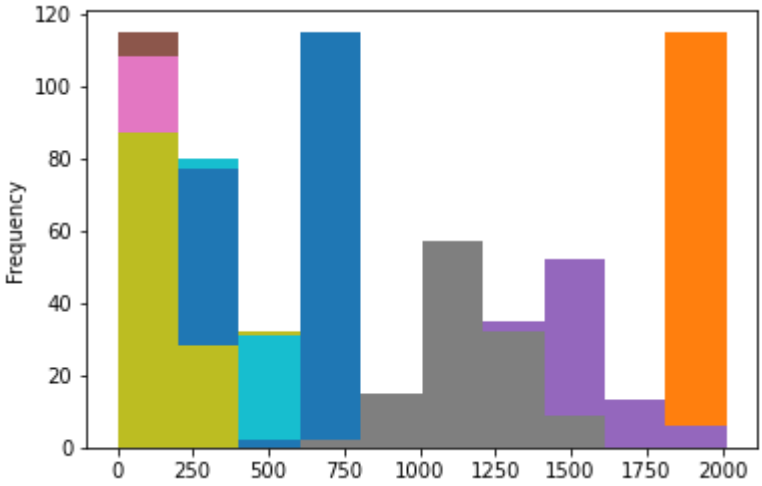


In [249]:

```
a.plot.hist(legend=None)
```

Out[249]:

<AxesSubplot:ylabel='Frequency'>

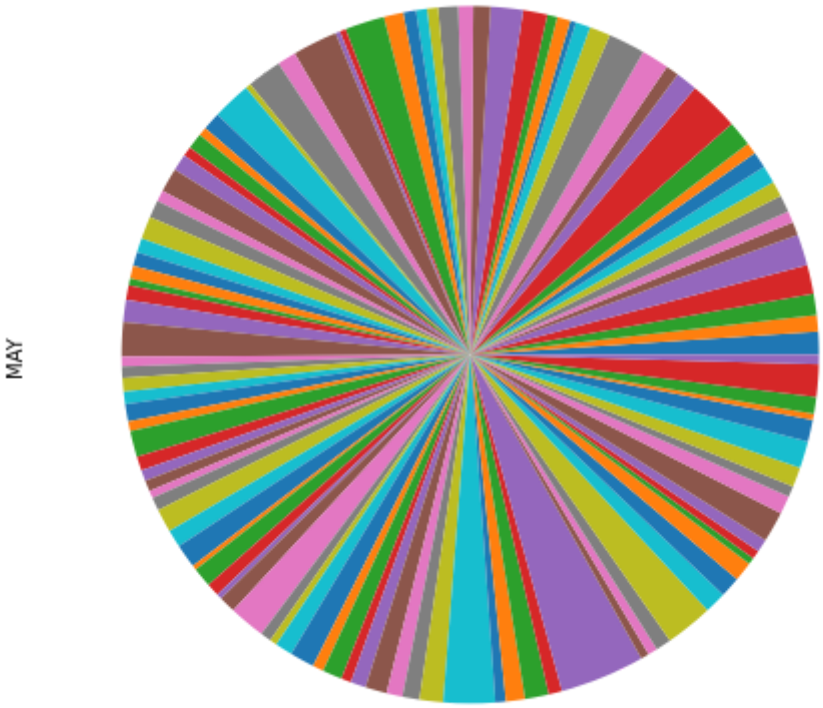


In [250]:

```
a.plot.pie(y='MAY',figsize=(8,8),labels=None,legend=None)
```

Out[250]:

<AxesSubplot:ylabel='MAY'>



set33:

In [251]:

```
a=pd.read_csv(r"C:\Users\user\Downloads\Book33.csv")
a
```

Out[251]:

	index	SUBDIVISION	YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
0	782	JHARKHAND	1901	92.7	66.6	11.1	18.4	33.5	70.9	269.4	415.1	248.0	
1	783	JHARKHAND	1902	4.2	7.7	13.2	28.5	59.8	89.9	456.1	204.9	306.6	
2	784	JHARKHAND	1903	25.1	19.5	10.7	32.8	56.4	142.1	206.1	280.8	190.2	2
3	785	JHARKHAND	1904	2.5	17.0	38.1	9.1	116.1	308.9	494.1	336.1	125.6	
4	786	JHARKHAND	1905	38.4	53.3	61.6	32.9	66.2	41.5	420.3	293.7	322.8	
...	...	...	...	...	...	...	...	...	...	...	...	...	
110	892	JHARKHAND	2011	3.3	2.5	6.4	25.4	55.0	349.0	181.8	403.2	324.6	
111	893	JHARKHAND	2012	34.6	10.3	1.5	9.6	6.6	121.1	287.2	282.4	217.6	
112	894	JHARKHAND	2013	1.1	17.9	1.6	22.3	85.0	181.5	211.1	278.1	173.8	28
113	895	JHARKHAND	2014	9.9	47.5	22.9	1.9	98.2	139.7	321.3	290.9	178.2	
114	896	JHARKHAND	2015	12.2	2.6	21.6	55.5	25.5	183.3	429.7	240.7	85.1	

115 rows × 20 columns

In [252]:

```
a.info()
```

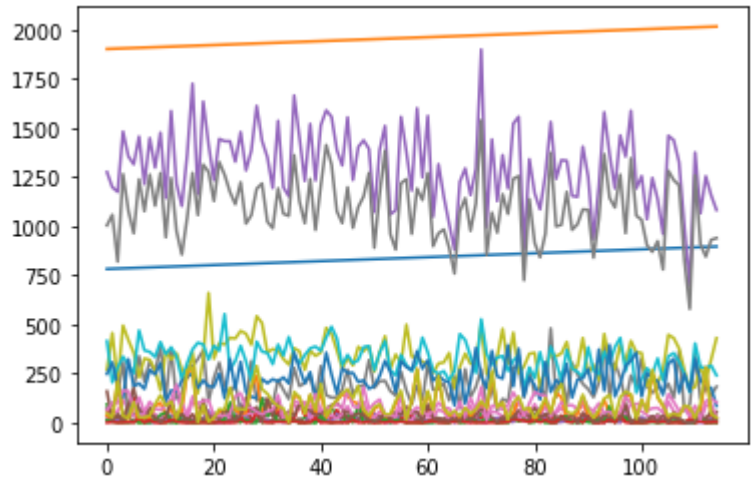
```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 115 entries, 0 to 114
Data columns (total 20 columns):
 #   Column       Non-Null Count  Dtype  
---  ------       --------------  -----  
 0   index        115 non-null    int64  
 1   SUBDIVISION  115 non-null    object 
 2   YEAR         115 non-null    int64  
 3   JAN          115 non-null    float64
 4   FEB          115 non-null    float64
 5   MAR          115 non-null    float64
 6   APR          115 non-null    float64
 7   MAY          115 non-null    float64
 8   JUN          115 non-null    float64
 9   JUL          115 non-null    float64
 10  AUG          115 non-null    float64
 11  SEP          115 non-null    float64
 12  OCT          115 non-null    float64
 13  NOV          115 non-null    float64
 14  DEC          115 non-null    float64
 15  ANNUAL       115 non-null    float64
 16  Jan-Feb      115 non-null    float64
 17  Mar-May      115 non-null    float64
 18  Jun-Sep      115 non-null    float64
 19  Oct-Dec      115 non-null    float64
dtypes: float64(17), int64(2), object(1)
memory usage: 18.1+ KB
```

In [253]:

```
a.plot.line(legend=None)
```

Out[253]:

```
<AxesSubplot:>
```

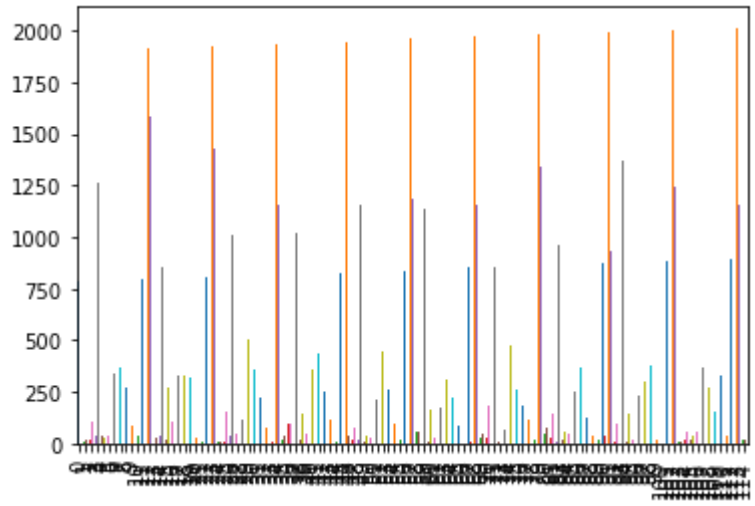


In [254]:

```
a.plot.bar(legend=None)
```

Out[254]:

<AxesSubplot:>

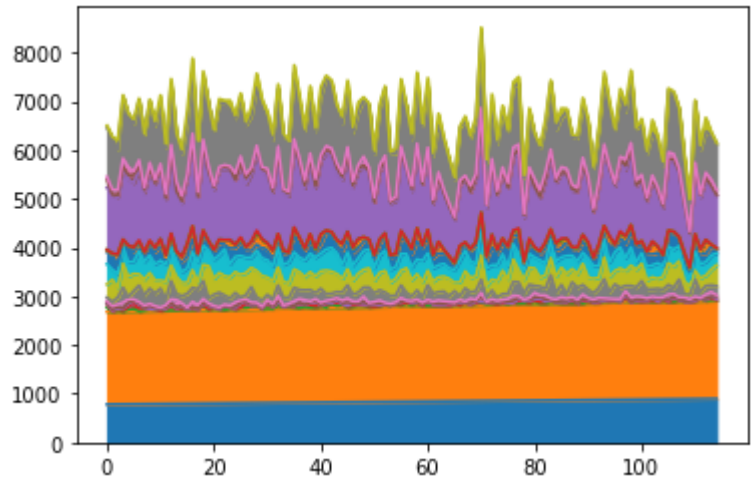


In [255]:

```
a.plot.area(legend=None)
```

Out[255]:

<AxesSubplot:>

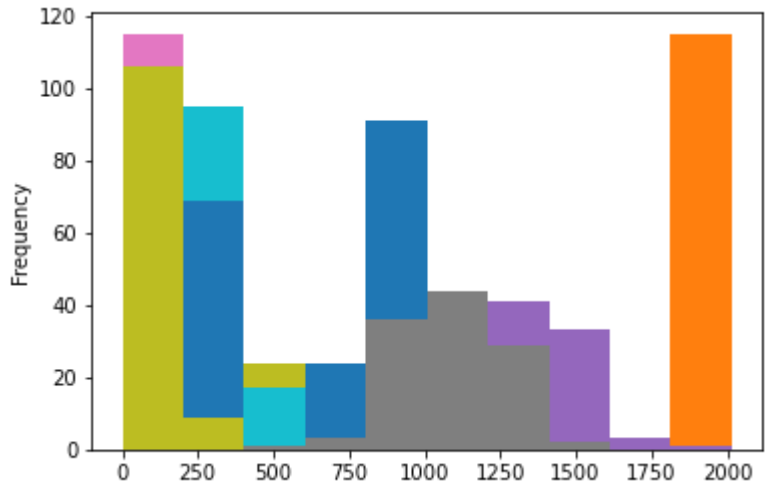


In [256]:

```
a.plot.hist(legend=None)
```

Out[256]:

```
<AxesSubplot:ylabel='Frequency'>
```

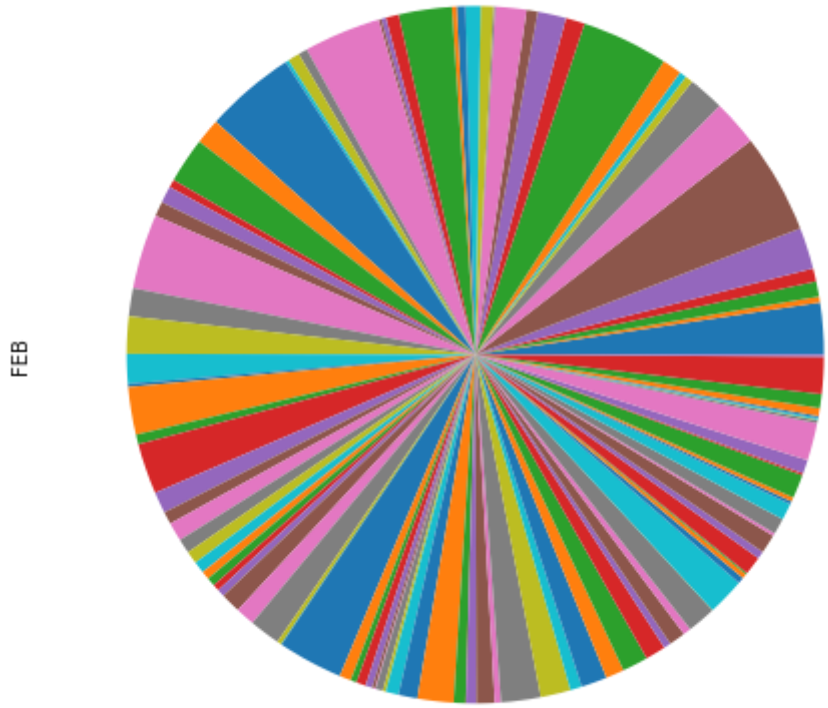


In [257]:

```
a.plot.pie(y='FEB',figsize=(8,8),labels=None,legend=None)
```

Out[257]:

```
<AxesSubplot:ylabel='FEB'>
```



set34:

In [259]:

```
a=pd.read_csv(r"C:\Users\user\Downloads\Book34.csv")
a
```

Out[259]:

	index	SUBDIVISION	YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
0	897	BIHAR	1901	51.8	19.6	11.9	1.1	65.6	66.3	245.9	319.4	155.1	
1	898	BIHAR	1902	4.6	0.7	24.3	17.3	66.3	118.2	361.0	225.5	358.7	
2	899	BIHAR	1903	5.3	4.7	2.0	4.7	28.2	192.9	115.0	342.6	173.9	1
3	900	BIHAR	1904	6.3	1.7	3.5	5.3	118.7	191.6	394.4	351.3	84.4	
4	901	BIHAR	1905	16.0	30.1	32.6	21.4	77.5	50.5	409.1	495.3	353.9	
...	...	...	...	...	...	...	...	...	...	...	...	...	
110	1007	BIHAR	2011	4.2	7.7	9.2	23.9	74.5	211.0	241.1	278.7	234.1	
111	1008	BIHAR	2012	18.1	2.7	7.3	20.4	18.8	96.2	354.0	240.4	233.8	
112	1009	BIHAR	2013	5.1	22.6	0.6	32.3	89.5	183.3	182.0	213.6	143.3	1
113	1010	BIHAR	2014	17.0	33.5	8.4	0.7	103.9	115.2	265.4	307.6	160.3	
114	1011	BIHAR	2015	12.8	1.8	27.2	38.7	39.5	122.1	231.5	287.0	101.7	

115 rows × 20 columns

In [260]:

```
a.info()
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 115 entries, 0 to 114
Data columns (total 20 columns):
 #   Column       Non-Null Count  Dtype  
---  ------       --------------  -----  
 0   index        115 non-null    int64  
 1   SUBDIVISION  115 non-null    object 
 2   YEAR         115 non-null    int64  
 3   JAN          115 non-null    float64
 4   FEB          115 non-null    float64
 5   MAR          115 non-null    float64
 6   APR          115 non-null    float64
 7   MAY          115 non-null    float64
 8   JUN          115 non-null    float64
 9   JUL          115 non-null    float64
 10  AUG          115 non-null    float64
 11  SEP          115 non-null    float64
 12  OCT          115 non-null    float64
 13  NOV          115 non-null    float64
 14  DEC          115 non-null    float64
 15  ANNUAL       115 non-null    float64
 16  Jan-Feb      115 non-null    float64
 17  Mar-May      115 non-null    float64
 18  Jun-Sep      115 non-null    float64
 19  Oct-Dec      115 non-null    float64
dtypes: float64(17), int64(2), object(1)
memory usage: 18.1+ KB
```

In [261]:

```
b=a.fillna(method='ffill')
b
```

Out[261]:

	index	SUBDIVISION	YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
0	897	BIHAR	1901	51.8	19.6	11.9	1.1	65.6	66.3	245.9	319.4	155.1	
1	898	BIHAR	1902	4.6	0.7	24.3	17.3	66.3	118.2	361.0	225.5	358.7	
2	899	BIHAR	1903	5.3	4.7	2.0	4.7	28.2	192.9	115.0	342.6	173.9	1
3	900	BIHAR	1904	6.3	1.7	3.5	5.3	118.7	191.6	394.4	351.3	84.4	
4	901	BIHAR	1905	16.0	30.1	32.6	21.4	77.5	50.5	409.1	495.3	353.9	
...	...	...	...	...	...	...	...	...	...	...	...	...	
110	1007	BIHAR	2011	4.2	7.7	9.2	23.9	74.5	211.0	241.1	278.7	234.1	
111	1008	BIHAR	2012	18.1	2.7	7.3	20.4	18.8	96.2	354.0	240.4	233.8	
112	1009	BIHAR	2013	5.1	22.6	0.6	32.3	89.5	183.3	182.0	213.6	143.3	1
113	1010	BIHAR	2014	17.0	33.5	8.4	0.7	103.9	115.2	265.4	307.6	160.3	
114	1011	BIHAR	2015	12.8	1.8	27.2	38.7	39.5	122.1	231.5	287.0	101.7	

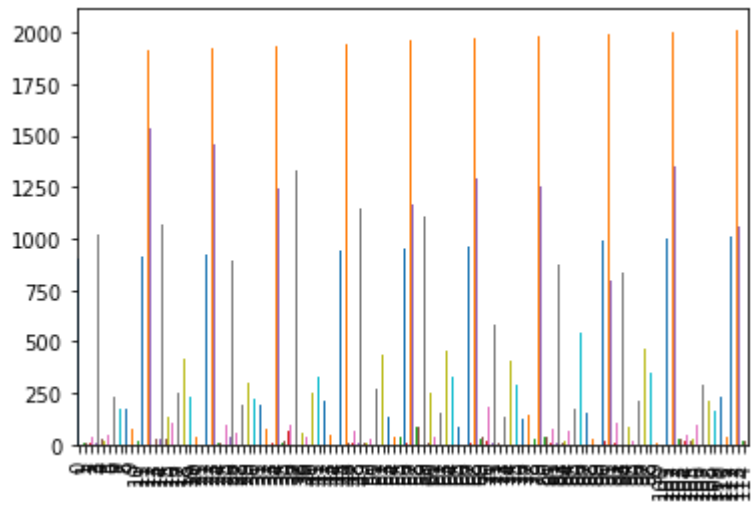
115 rows × 20 columns

In [262]:

```
b.plot.bar(legend=None)
```

Out[262]:

```
<AxesSubplot:>
```

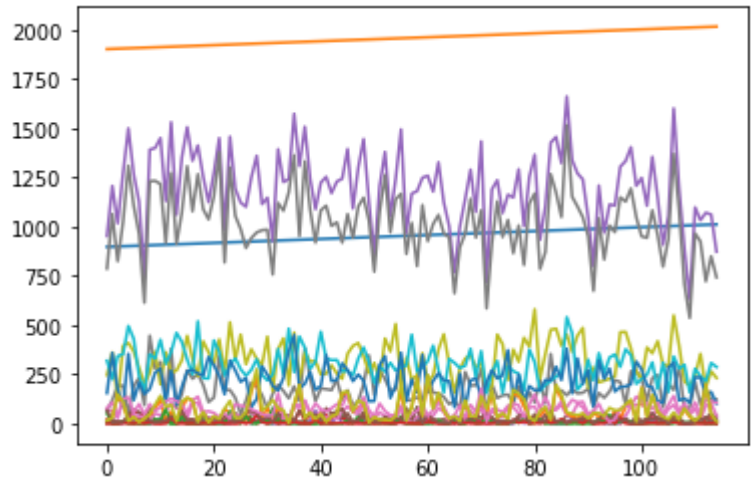


In [263]:

```
b.plot.line(legend=None)
```

Out[263]:

<AxesSubplot:>

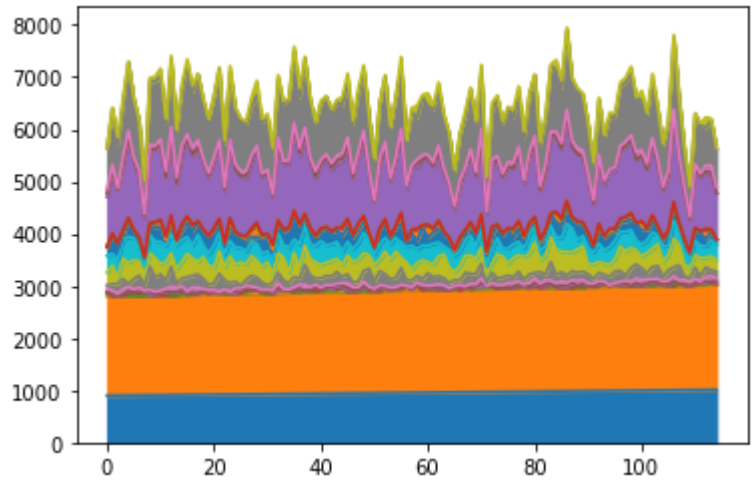


In [264]:

```
b.plot.area(legend=None)
```

Out[264]:

<AxesSubplot:>

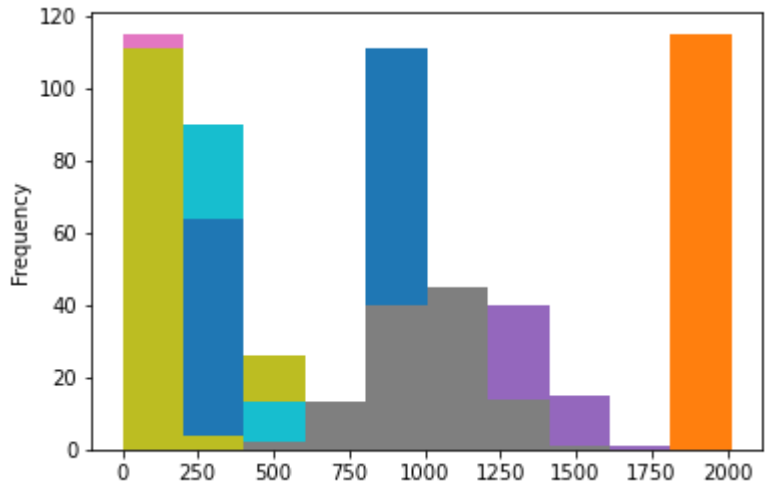


In [265]:

```
b.plot.hist(legend=None)
```

Out[265]:

```
<AxesSubplot:ylabel='Frequency'>
```

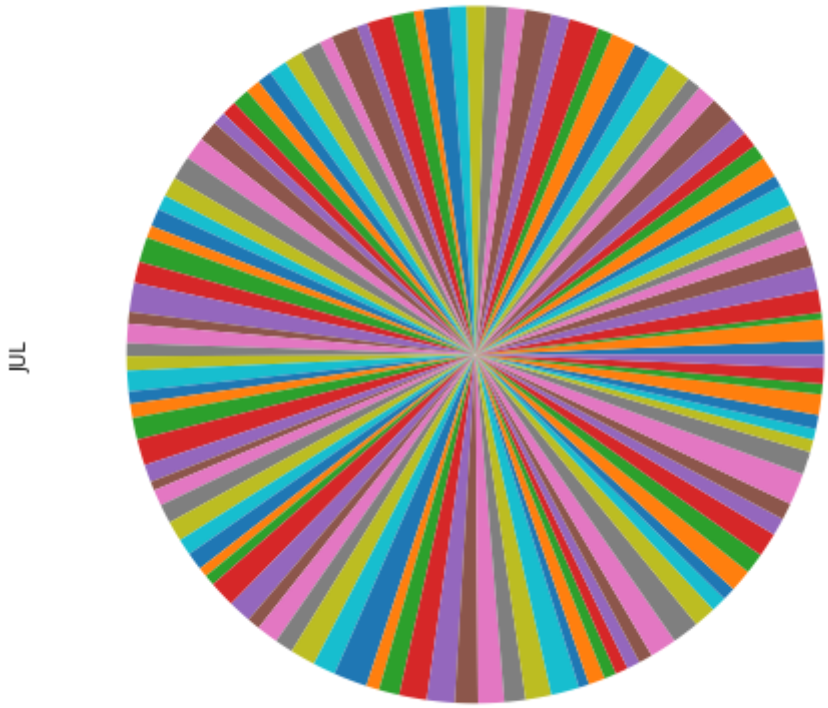


In [266]:

```
b.plot.pie(y='JUL',figsize=(8,8),labels=None,legend=None)
```

Out[266]:

```
<AxesSubplot:ylabel='JUL'>
```



set35:

In [269]:

```
a=pd.read_csv(r"C:\Users\user\Downloads\Book35.csv")
a
```

Out[269]:

	index	SUBDIVISION	YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	O
0	1012	EAST UTTAR PRADESH	1901	62.6	31.3	8.2	1.1	13.6	21.8	226.5	285.6	215.4	
1	1013	EAST UTTAR PRADESH	1902	6.1	2.3	2.4	2.0	21.4	32.5	411.5	155.4	257.2	1
2	1014	EAST UTTAR PRADESH	1903	8.2	0.4	1.3	0.7	15.3	71.6	115.3	420.2	258.7	32
3	1015	EAST UTTAR PRADESH	1904	7.3	1.5	8.3	0.4	28.7	148.0	359.4	328.8	95.0	5
4	1016	EAST UTTAR PRADESH	1905	16.8	23.6	20.0	5.4	15.4	17.3	302.4	316.2	169.5	
...	...	...	...	...	...	...	...	...	...	...	...	...	
110	1122	EAST UTTAR PRADESH	2011	1.0	2.7	1.6	2.9	32.2	163.8	197.9	232.1	146.4	
111	1123	EAST UTTAR PRADESH	2012	20.3	1.2	3.4	2.8	0.2	18.5	234.2	156.0	164.4	
112	1124	EAST UTTAR PRADESH	2013	6.1	59.6	2.7	8.7	1.1	309.7	230.0	246.1	78.2	9
113	1125	EAST UTTAR PRADESH	2014	47.4	25.8	15.4	1.7	10.7	47.8	224.5	138.1	106.7	7
114	1126	EAST UTTAR PRADESH	2015	30.0	4.1	48.2	23.2	8.6	95.3	179.0	175.8	21.9	1

115 rows × 20 columns

In [270]:

```
a.info()
```

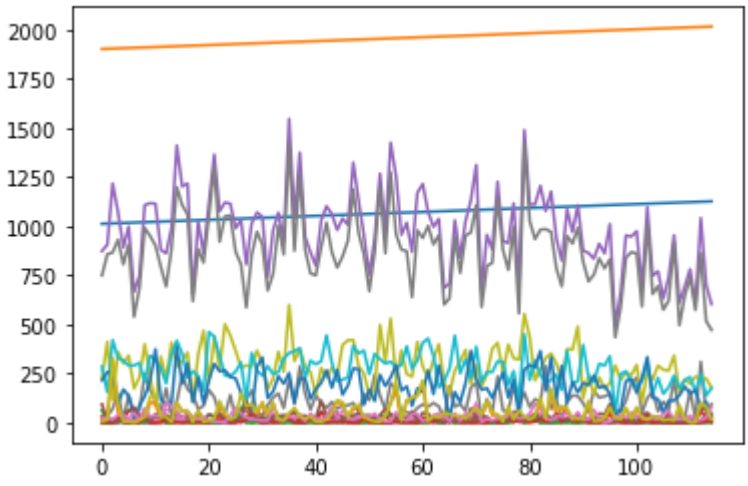
```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 115 entries, 0 to 114
Data columns (total 20 columns):
 #   Column       Non-Null Count  Dtype  
---  ------       --------------  -----  
 0   index        115 non-null    int64  
 1   SUBDIVISION  115 non-null    object 
 2   YEAR         115 non-null    int64  
 3   JAN          115 non-null    float64
 4   FEB          115 non-null    float64
 5   MAR          115 non-null    float64
 6   APR          115 non-null    float64
 7   MAY          115 non-null    float64
 8   JUN          115 non-null    float64
 9   JUL          115 non-null    float64
 10  AUG          115 non-null    float64
 11  SEP          115 non-null    float64
 12  OCT          115 non-null    float64
 13  NOV          115 non-null    float64
 14  DEC          115 non-null    float64
 15  ANNUAL       115 non-null    float64
 16  Jan-Feb      115 non-null    float64
 17  Mar-May      115 non-null    float64
 18  Jun-Sep      115 non-null    float64
 19  Oct-Dec      115 non-null    float64
dtypes: float64(17), int64(2), object(1)
memory usage: 18.1+ KB
```

In [271]:

```
a.plot.line(legend=None)
```

Out[271]:

```
<AxesSubplot:>
```

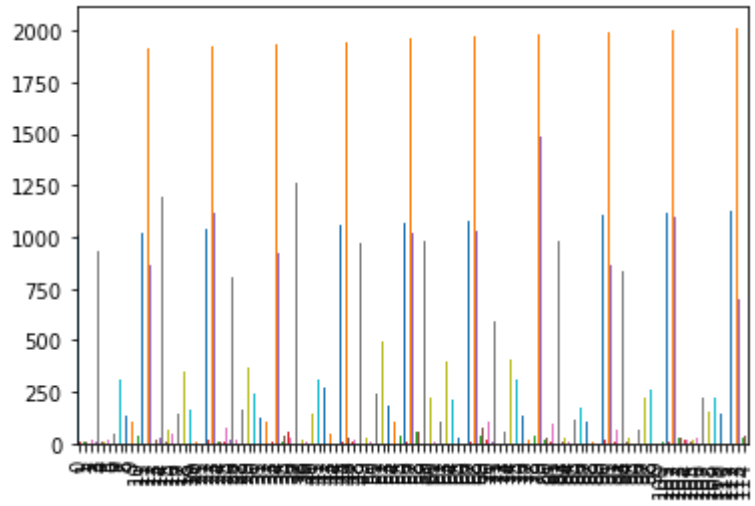


In [272]:

```
a.plot.bar(legend=None)
```

Out[272]:

<AxesSubplot:>

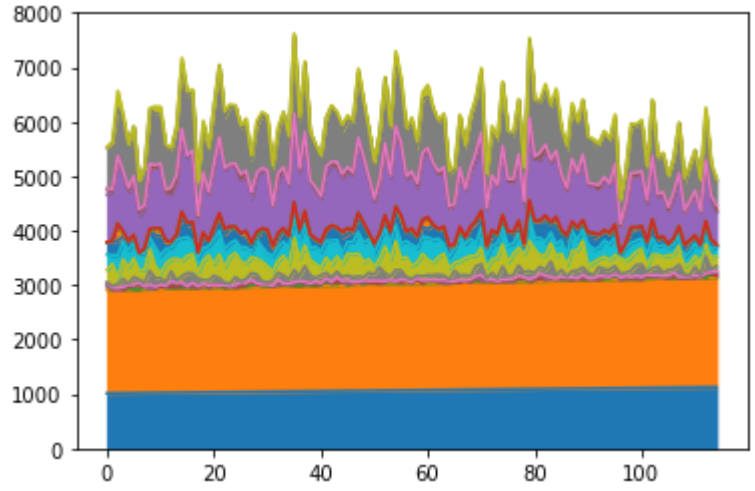


In [273]:

```
a.plot.area(legend=None)
```

Out[273]:

<AxesSubplot:>

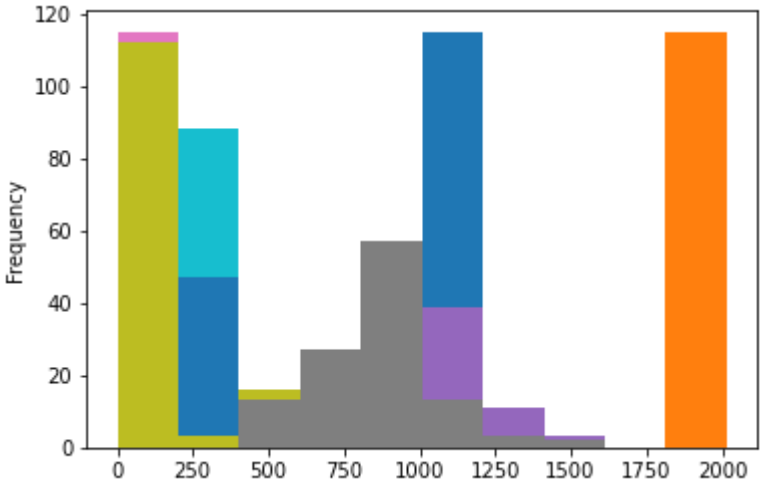


In [274]:

```
a.plot.hist(legend=None)
```

Out[274]:

```
<AxesSubplot:ylabel='Frequency'>
```

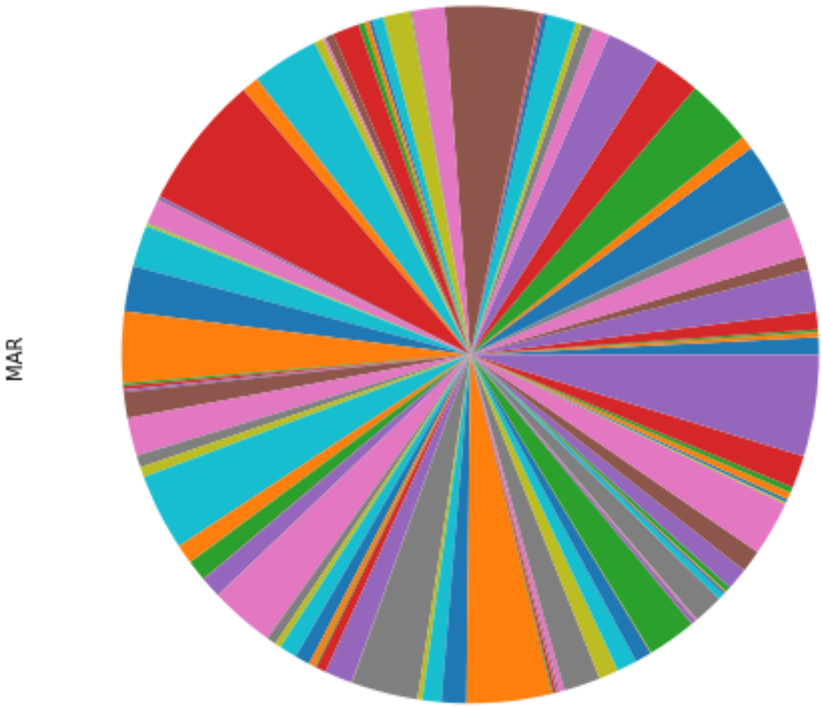


In [275]:

```
a.plot.pie(y='MAR',figsize=(8,8),labels=None,legend=None)
```

Out[275]:

```
<AxesSubplot:ylabel='MAR'>
```



set36:

In [276]:

```
a=pd.read_csv(r"C:\Users\user\Downloads\Book36.csv")
a
```

Out[276]:

	index	SUBDIVISION	YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
0	1242	UTTARAKHAND	1901	134.5	81.4	44.5	5.9	60.8	33.6	381.1	612.3	167.1
1	1243	UTTARAKHAND	1902	0.0	17.0	52.2	63.7	52.1	113.1	444.1	327.5	220.4
2	1244	UTTARAKHAND	1903	68.0	7.9	87.6	10.3	37.5	83.0	251.6	442.7	249.3
3	1245	UTTARAKHAND	1904	40.0	5.2	78.3	13.6	61.1	180.1	449.6	417.2	174.1
4	1246	UTTARAKHAND	1905	115.4	80.7	99.8	26.1	70.3	111.5	299.9	349.5	129.5
...	...	...	...	...	...	...	...	...	...	...	...	...
110	1352	UTTARAKHAND	2011	30.9	65.2	18.0	30.9	84.2	223.1	433.3	523.7	148.4
111	1353	UTTARAKHAND	2012	38.8	11.9	28.1	39.2	9.1	46.0	387.1	419.5	220.6
112	1354	UTTARAKHAND	2013	73.0	188.3	22.0	24.7	18.2	488.9	413.4	359.4	111.3
113	1355	UTTARAKHAND	2014	45.9	99.9	68.4	37.6	52.9	62.9	462.7	264.2	107.9
114	1356	UTTARAKHAND	2015	54.5	62.6	127.3	57.3	38.0	186.6	337.0	305.3	52.6

115 rows × 20 columns

In [277]:

```
a.info()
```

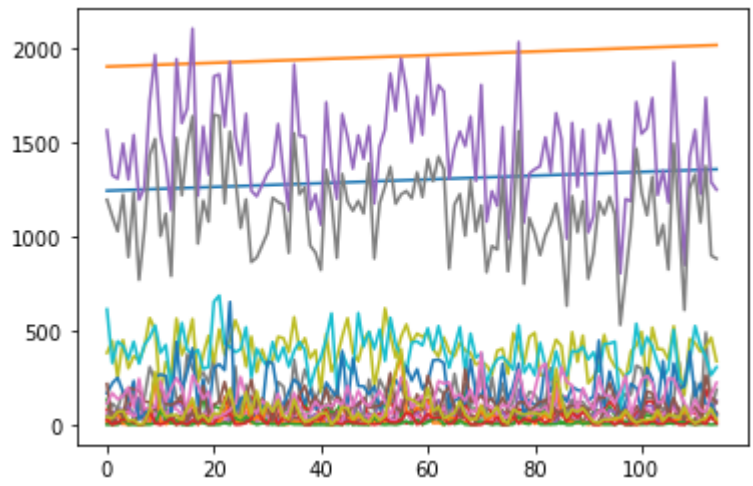
```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 115 entries, 0 to 114
Data columns (total 20 columns):
 #   Column       Non-Null Count  Dtype  
---  ------       --------------  -----  
 0   index        115 non-null    int64  
 1   SUBDIVISION  115 non-null    object 
 2   YEAR         115 non-null    int64  
 3   JAN          115 non-null    float64
 4   FEB          115 non-null    float64
 5   MAR          115 non-null    float64
 6   APR          115 non-null    float64
 7   MAY          115 non-null    float64
 8   JUN          115 non-null    float64
 9   JUL          115 non-null    float64
 10  AUG          115 non-null    float64
 11  SEP          115 non-null    float64
 12  OCT          115 non-null    float64
 13  NOV          115 non-null    float64
 14  DEC          115 non-null    float64
 15  ANNUAL       115 non-null    float64
 16  Jan-Feb      115 non-null    float64
 17  Mar-May      115 non-null    float64
 18  Jun-Sep      115 non-null    float64
 19  Oct-Dec      115 non-null    float64
dtypes: float64(17), int64(2), object(1)
memory usage: 18.1+ KB
```

In [278]:

```
a.plot.line(legend=None)
```

Out[278]:

```
<AxesSubplot:>
```

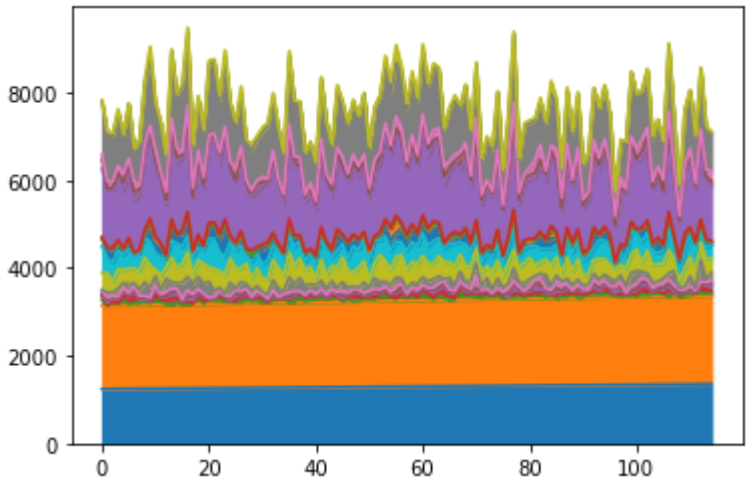


In [279]:

```
a.plot.area(legend=None)
```

Out[279]:

<AxesSubplot:>

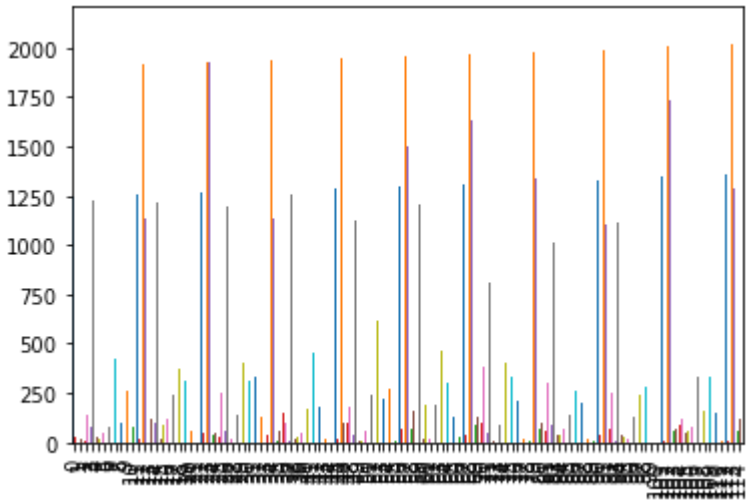


In [280]:

```
a.plot.bar(legend=None)
```

Out[280]:

<AxesSubplot:>

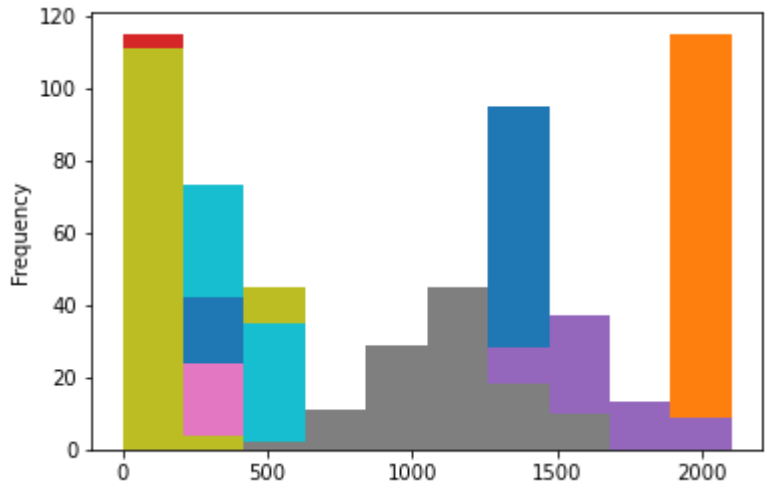


In [281]:

```
a.plot.hist(legend=None)
```

Out[281]:

```
<AxesSubplot:ylabel='Frequency'>
```

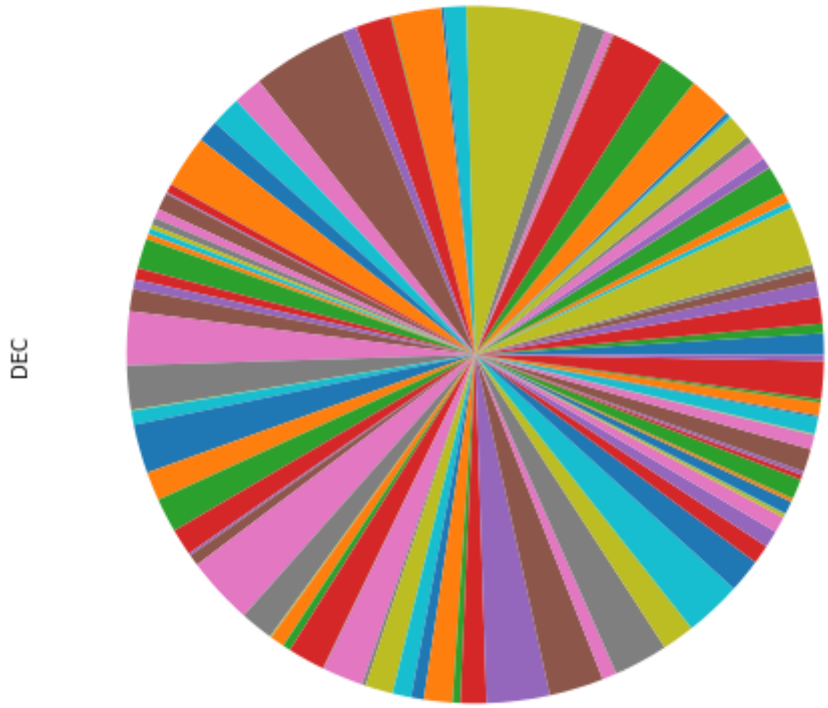


In [282]:

```
a.plot.pie(y='DEC',figsize=(8,8),labels=None,legend=None)
```

Out[282]:

```
<AxesSubplot:ylabel='DEC'>
```



In [ ]: